



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

February 6, 2007

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

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

SUBJECT: Beaufort County, Improvements to US 17 Over the Tar
River; T.I.P. Number R-2510; Federal Aid Project MAF-
75-3 (26); State Project 8.T150601

Attached is the U. S. Army Corps of Engineers 404 Individual Permit and the 401 Water Quality Certification for the above referenced project.

PSH/gyb

Attachment

Cc:

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

PROJECT COMMITMENTS

Beaufort County
Improvements to US 17
Over the Tar River
Federal Aid Project MAF-75-3 (26)
State Project 8.T150601
TIP No. R-2510

In addition to the standard Nationwide Permit # 6 Conditions, the General Nationwide Permit Conditions, Section 404 Only Conditions, Regional Conditions, State Consistency Conditions, General Certification Conditions, Individual Section 404 Special Conditions and the Section 401 Conditions of Certification, the following Special Commitments have been agreed to by NCDOT:

Commitments Developed During Project Planning:

Hydraulics Unit, Division 2, REU

“High Quality Waters (HQW) Erosion Control Guidelines” will be adhered to throughout construction.

Hydraulics Unit, Division 2

NCDOT’s “Stream Crossing Guidelines for Anadromous Fish Passage” will be adhered to for this project.

Division 2

Precautionary Guidelines for General Construction in Areas Which May Be Used by the West Indian Manatee in North Carolina will be utilized for this project.

Commitments Developed During Permitting:

PDEA

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.

NCDOT biologists completed this survey on August 22, 2005 and the results were forwarded to the USFWS on November 28, 2005.

Division 2

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.

PDEA, Division 2, Roadway Design, Hydraulics Unit

NCDOT understands that no construction will occur on sections R-2510B and R-2510C until final design and resulting impacts have been approved by all regulatory agencies.

Division 2

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.

Division 2

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

Division 2

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.

Division 2

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.

PDEA

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.

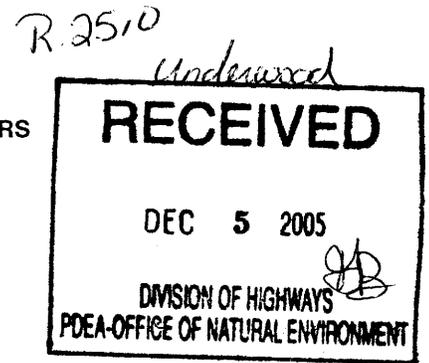


IN REPLY REFER TO

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS

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

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,

A handwritten signature in black ink that reads "David M. Lekson". The signature is written in a cursive, flowing style.

David M. Lekson, Chief
Washington Regulatory Field Office

Enclosures

Date November 28, 2005

File No. 199301143

**NOTIFICATION OF APPLICANT OPTIONS (NAO)
FOR PARTIES ISSUED A DEPARTMENT OF THE ARMY INDIVIDUAL PERMIT**

You are hereby advised that the following options are available to you in your evaluation of the enclosed permit:

1) You may sign the permit, and return it to the district engineer for final authorization. Your signature on the permit means that you accept the permit in its entirety, and waive all rights to appeal the permit, or its terms and conditions.

2) You may decline to sign the permit because you object to certain terms and conditions therein, and you may request that the permit be modified accordingly. You must outline your objections to the terms and conditions of the permit in a letter to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this NAO, or you will forfeit your right to request changes to the terms and conditions of the permit. Upon receipt of your letter, the district engineer will evaluate your objections, and may: (a) modify the permit to address all of your concerns, or (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. In any of these three cases, the district engineer will send you a final permit for your reconsideration, as well a notification of appeal (NAP) form and a request for appeal (RFA) form. Should you decline the final proffered permit, you can appeal the declined permit under the Corps of Engineers Administrative Appeal Process by submitting the completed RFA form to the division engineer. The RFA must be received by the division engineer within 60 days of the date of the NAP that was transmitted with the second proffered permit.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: NCDOT, Greg Thorpe	File Number: 199301143	11/28/2005
Attached is:		See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I – The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

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 DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II – REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
William Wescott
Washington Regulatory Field Office
P.O. Box 1000
Washington, North Carolina 27889

If you only have questions regarding the appeal process you may also contact:
Mr. Michael Bell, Administrative Appeal Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

<hr/> Signature of appellant or agent	Date:	Telephone number:
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DIVISION ENGINEER:
Commander
U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-3490

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.

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:

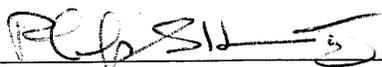
1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries 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.


12/6/05

 (PERMITTEE) North Carolina Department of Transportation (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

 (DISTRICT ENGINEER) JOHN E. PULLIAM, JR., COLONEL (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

 (TRANSFeree) (DATE)

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).

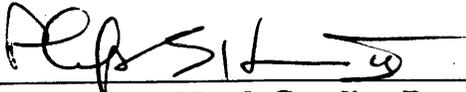
Construction within jurisdictional areas on the property shall begin only after the permittee has made full payment to the NC EEP and provided a copy of the payment documentation to the Corps, and the NC EEP has provided written confirmation to the Corps that it agrees to accept responsibility for the 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.

- 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.



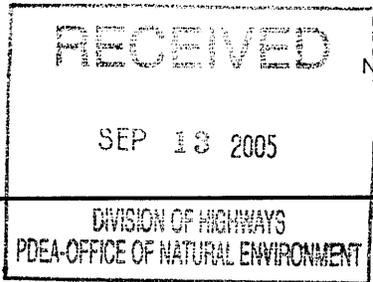
 (PERMITTEE) North Carolina Department of Transportation (DATE) 12/6/05

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

 (DISTRICT ENGINEER) JOHN E. PULLIAM, JR., COLONEL (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

 (TRANSFeree) (DATE)



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

Underwood

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).
DWQ 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.

Sincerely,
Alan W. Klimek
Alan W. Klimek, P.E.
Director

Attachments

- cc: 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
- File Copy



**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 149,151 square 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 (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing 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			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 (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (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 Water (ac)	Temporary Fill in Surface Water (ac)	Permanent Stream Impacts (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

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	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 Mitigation Payment 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
2. 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 Impact	Impacts (Square Feet)	Replacement Ratio	Total Square Feet of 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 \$889,036.7 shall 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 12.41 acres 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).

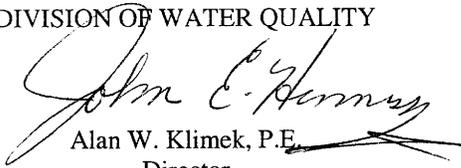
23. A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
24. DOT shall schedule a preconstruction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

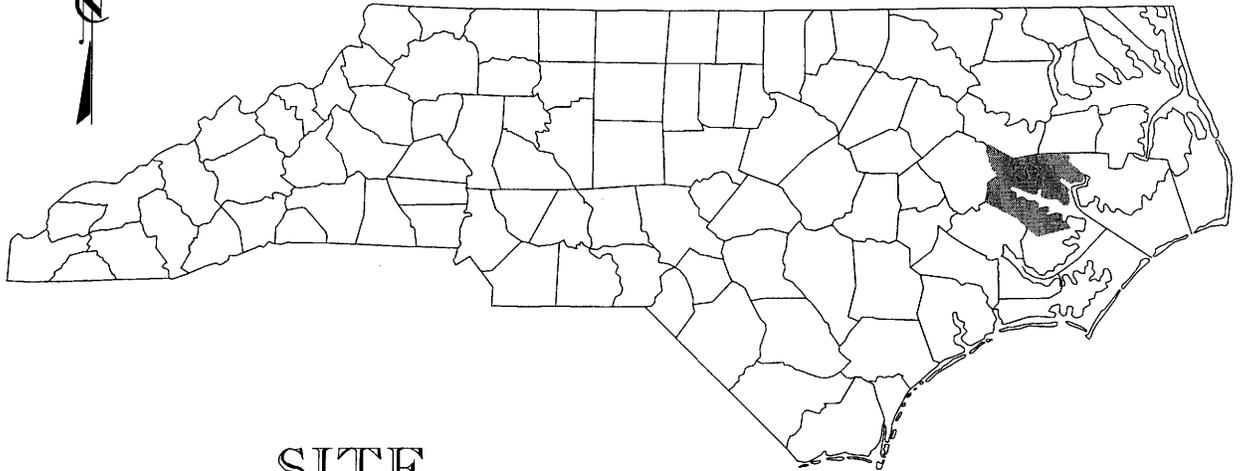
DIVISION OF WATER QUALITY

A handwritten signature in black ink, appearing to read "Alan W. Klimek", is written over the typed name and title.

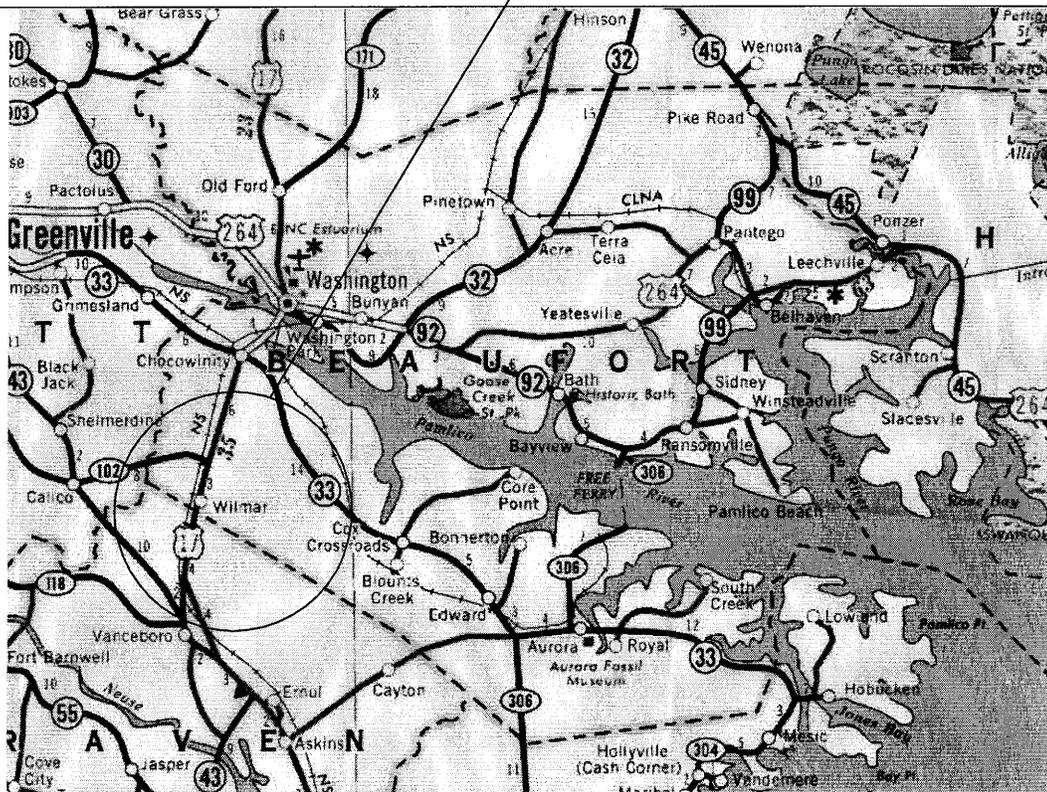
Alan W. Klimek, P.E.
Director

WQC No. 3527

NORTH CAROLINA



SITE



VICINITY MAP

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY
34440.LI (R-2510A)

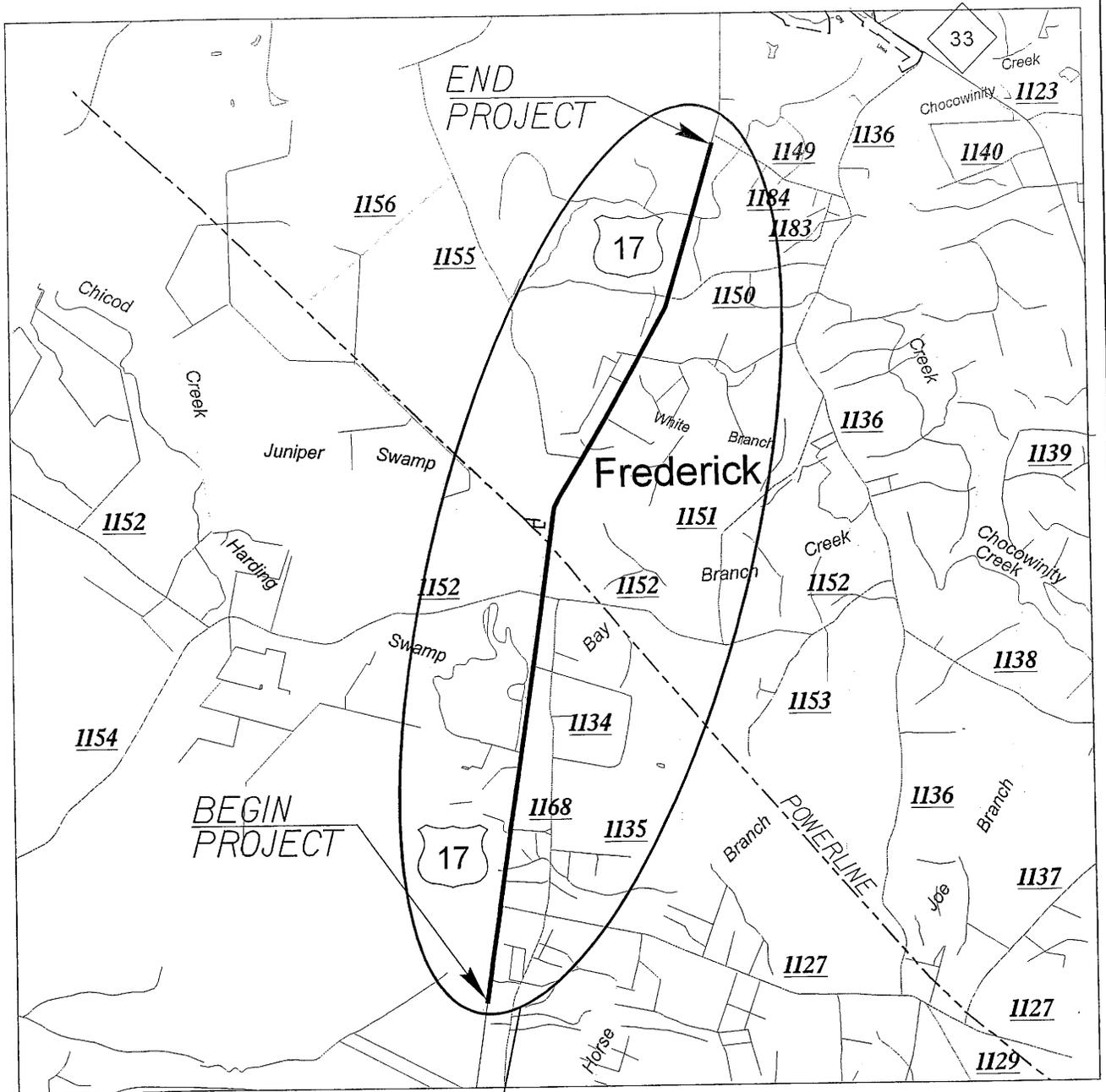
US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
TO SR 1149 (PRICE ROAD)

NOT TO SCALE

DATE: AUG-04

SHEET ___ OF ___

BUFFER SITE MAP



SITE



**NORTH CAROLINA
DEPARTMENT OF HIGHWAYS**

BEAUFORT COUNTY
34440.II(R-2510A)

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

NOT TO SCALE

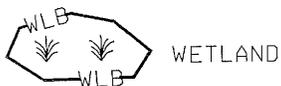
DATE: AUG-04

SHEET ____ OF ____

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3/15/2005 10:11:56 AM

BUFFER LEGEND

— WLB — WETLAND BOUNDARY



— BZ — RIPARIAN BUFFER ZONE

— BZ1 — RIPARIAN BUFFER ZONE 1
30 ft (9.2m)

— BZ2 — RIPARIAN BUFFER ZONE 2
20 ft (6.1m)

→ → FLOW DIRECTION

— TB — TOP OF BANK

— WE — EDGE OF WATER

— C — PROP. LIMIT OF CUT

— F — PROP. LIMIT OF FILL

▲ PROP. RIGHT OF WAY

— NG — NATURAL GROUND

— PL — PROPERTY LINE

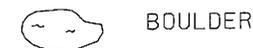
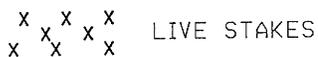
— TDE — TEMP. DRAINAGE EASEMENT

— PDE — PERMANENT DRAINAGE EASEMENT

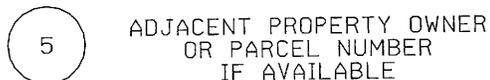
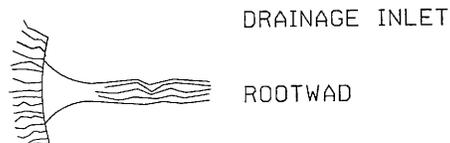
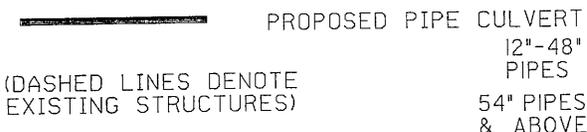
— EAB — EXIST. ENDANGERED ANIMAL BOUNDARY

— EPB — EXIST. ENDANGERED PLANT BOUNDARY

— ▽ — WATER SURFACE



— — CORE FIBER ROLLS



**NORTH CAROLINA
DEPARTMENT OF HIGHWAYS**

BEAUFORT COUNTY
34440.II(R-2510A)

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

NOT TO SCALE

DATE: AUG-04

SHEET ____ OF ____

r:\R2510A\Hydraulics\Permits\VR2510A_permit_1.shdgn
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SUMMARY OF AFFECTED PROPERTY OWNERS BUFFER SITES

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

**NORTH CAROLINA
DEPARTMENT OF HIGHWAYS**

BEAUFORT COUNTY
34440.LJ(R-2510A)

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

NOT TO SCALE

DATE: AUG-04

SHEET ____ OF ____



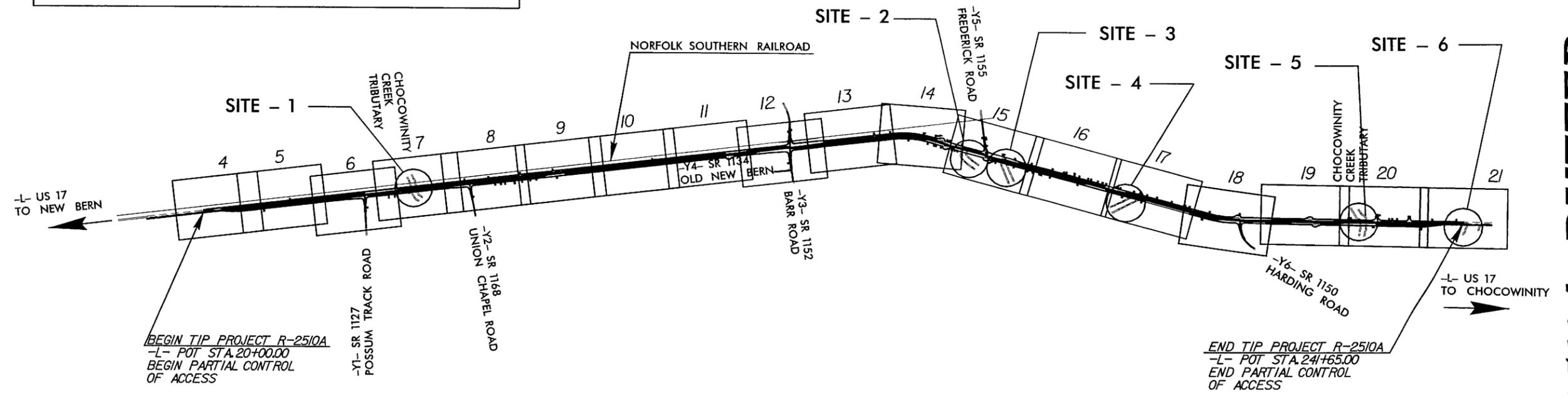
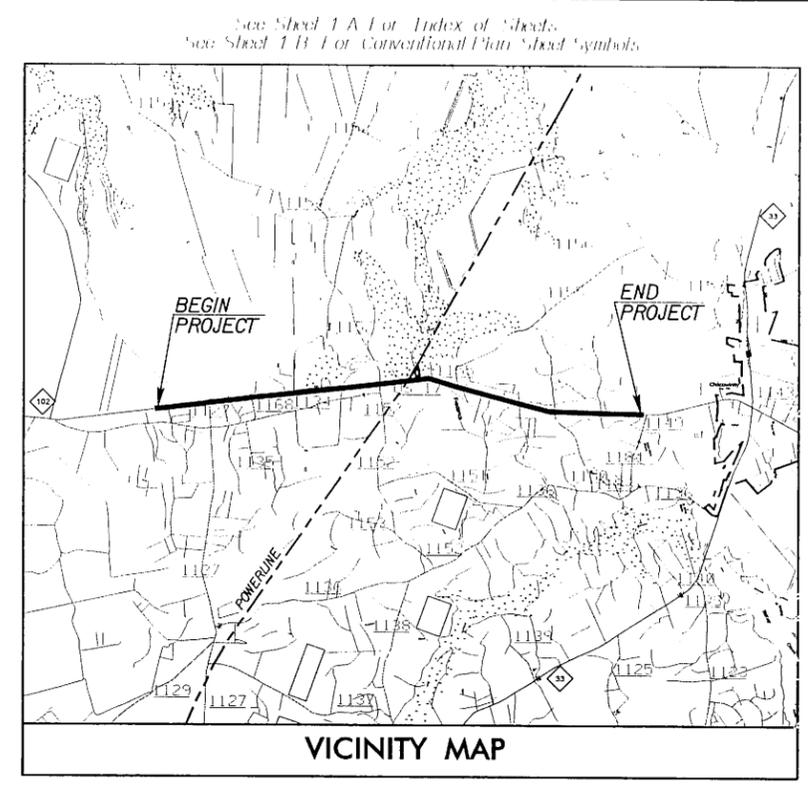
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2510A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34440.1.1	MAF-75-3(26)	PE	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
BEAUFORT COUNTY

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

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND CULVERT

R-2510A: BUFFER SITE MAP

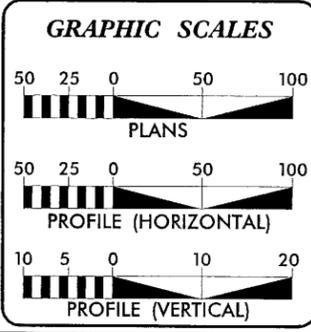


NOTES: THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD _____.

R-2510A

CONTRACT:

R-2510A: BUFFER SITE MAP
PREPARED BY: KO & ASSOCIATES, PC; RALEIGH, NC



DESIGN DATA

ADT 2006 =	10200 VPD
ADT 2026 =	17000 VPD
DHV =	12 %
D =	60 %
T =	12 % *
V =	60 MPH
* TTST 7%	DUAL 5%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2510A =	4.387 Mi
TOTAL LENGTH OF TIP PROJECT R-2510A =	4.837 Mi

Prepared In The Office Of:

Carter-Burgess
Consultants In Planning, Engineering, Architecture, Construction Management and Related Services
581 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: **DECEMBER 17, 2004**

LETTING DATE: **DECEMBER 19, 2006**

NCDOT CONTACT: **CATHY S. HOUSER, PE**
DESIGN SERVICES PROJECT ENGINEER

R. DONALD HURLBUT, PE
ROADWAY GROUP MANAGER

CARL L. BUSH III, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER _____ P.E.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ P.E.

DIVISION ADMINISTRATOR _____ DATE _____

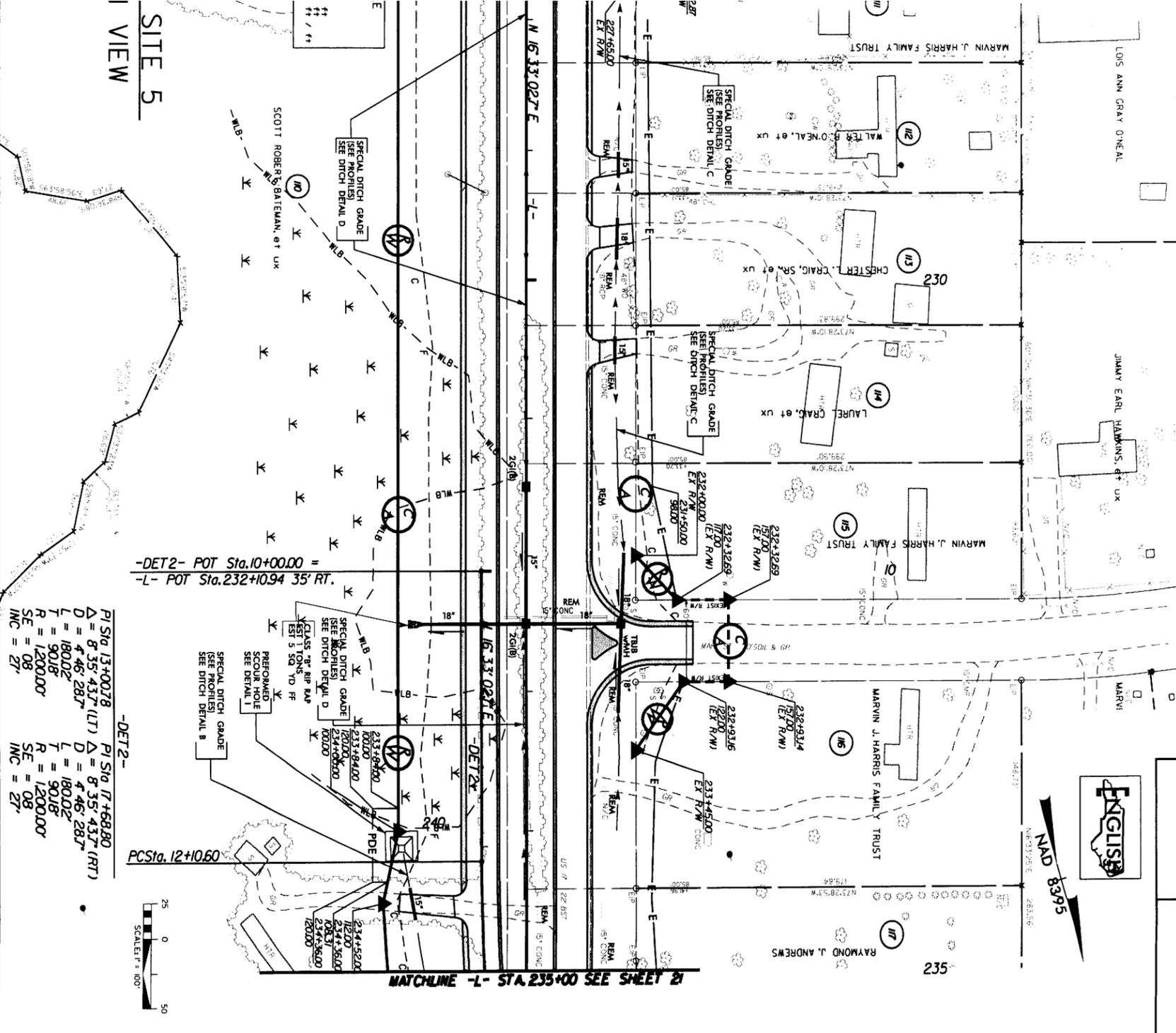
3/15/2005 3:15:25 PM R:\Hydro\Projects\R2510A\siteplans.dgn

ALL DRIVEWAY
 ECTIONS ARE 6' ABC
 S OTHERWISE NOTED

SEE SHEET 30 FOR -L- PROFILE
 SEE SHEET 34 FOR -DET2- PROFILE
 SEE SHEET 2C FOR DETCH DETAILS
 ALL DRIVEWAYS ARE 16' WIDE WITH
 10' RADIUS UNLESS OTHERWISE NOTED

Carter Burgess
 Consulting Engineers
 1011 SCHAUH DR., SUITE #202
 RALEIGH, N.C. 27606

PROJECT REFERENCE NO.	R-2510A	SHEET NO.	20
R/W SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS			
DO NOT USE FOR CONSTRUCTION			
INCOMPLETE PLANS			
DO NOT USE FOR E/W ACQUISITION			

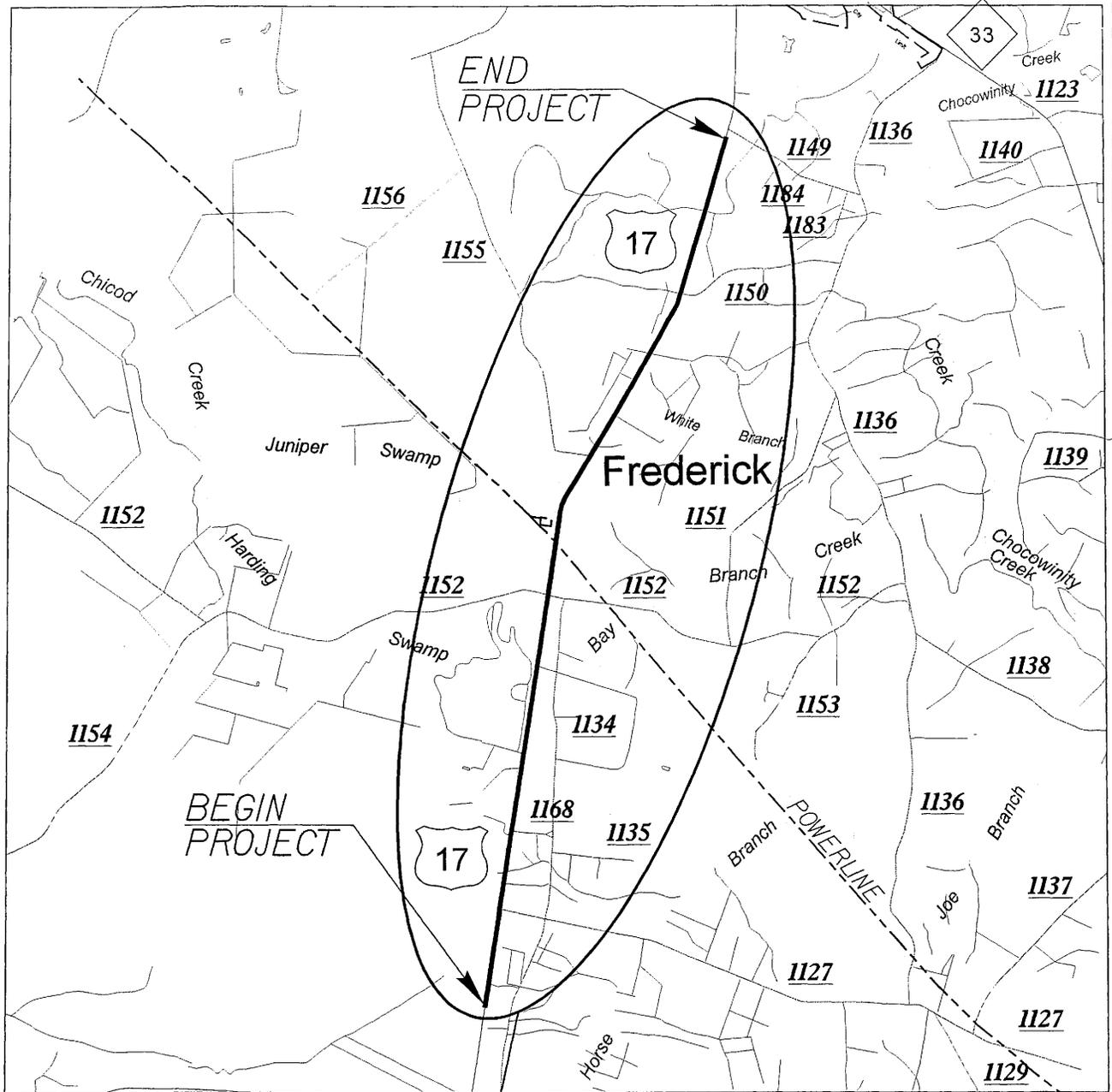


SITE 5
 I VIEW

PI Sta. 13+00.78 PI Sta. 17+68.80
 $\Delta = 8' 35" 43.7' (LT)$ $\Delta = 8' 35" 43.7' (RT)$
 $D = 4' 46" 28.7'$ $D = 4' 46" 28.7'$
 $L = 180.02'$ $L = 180.02'$
 $T = 90.18'$ $T = 90.18'$
 $R = 1200.00'$ $R = 1200.00'$
 $SE = 08$ $SE = 08$
 $INC = 27'$ $INC = 27'$



WETLAND SITE MAP



SITE



**NORTH CAROLINA
DEPARTMENT OF HIGHWAYS**

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

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

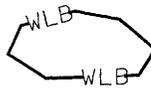
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DATE: AUG-04

SHEET 2 OF 6

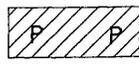
WETLAND LEGEND

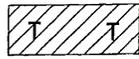
— WLB — WETLAND BOUNDARY

 WETLAND

 DENOTES FILL IN WETLAND

 DENOTES FILL IN SURFACE WATER

 DENOTES FILL IN SURFACE WATER (POND)

 DENOTES TEMPORARY FILL IN WETLAND

 DENOTES EXCAVATION IN WETLAND

 DENOTES TEMPORARY FILL IN SURFACE WATER

 DENOTES MECHANIZED CLEARING

→ → FLOW DIRECTION

— TB — TOP OF BANK

— WE — EDGE OF WATER

— C — PROP. LIMIT OF CUT

— F — 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

—▽— WATER SURFACE

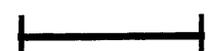
X X X X
X X X X LIVE STAKES

 BOULDER

— CORE FIBER ROLLS

 PROPOSED BRIDGE

 PROPOSED BOX CULVERT

 PROPOSED PIPE CULVERT
12"-48" PIPES
(DASHED LINES DENOTE EXISTING STRUCTURES) 54" PIPES & ABOVE

 SINGLE TREE

 WOODS LINE

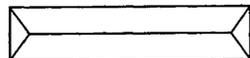
 DRAINAGE INLET

 ROOTWAD

 RIP RAP

 5
ADJACENT PROPERTY OWNER OR PARCEL NUMBER (IF AVAILABLE)

 PREFORMED SCOUR HOLE

 LEVEL SPREADER (LS)

 DITCH / GRASS SWALE



**NORTH CAROLINA
DEPARTMENT OF HIGHWAYS**

BEAUFORT COUNTY
34440.II(R-2510A)

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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3/15/2005 10:12:42 AM

SUMMARY OF AFFECTED PROPERTY OWNERS WETLAND SITES

TRACT NO.	PROPERTY OWNER	ADDRESS	SITE NO.
1	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 17 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	6851 US HWY 17 S CHOCOWINITY NC, 27817	8
48	J.J. COOK, et ux	236 E. MAIN ST. WASHINGTON NC, 27889	10
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 17 S CHOCOWINITY NC, 27817	13

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NORTH CAROLINA DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY
34440.II (R-2510A)

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

NOT TO SCALE

DATE: AUG-04

SHEET 4 OF 6

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
(110)	SCOTT ROBERT BATEMAN, et ux	4829 US HWY 17 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

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**NORTH CAROLINA
DEPARTMENT OF HIGHWAYS**

BEAUFORT COUNTY
34440.11 (R-2510A)

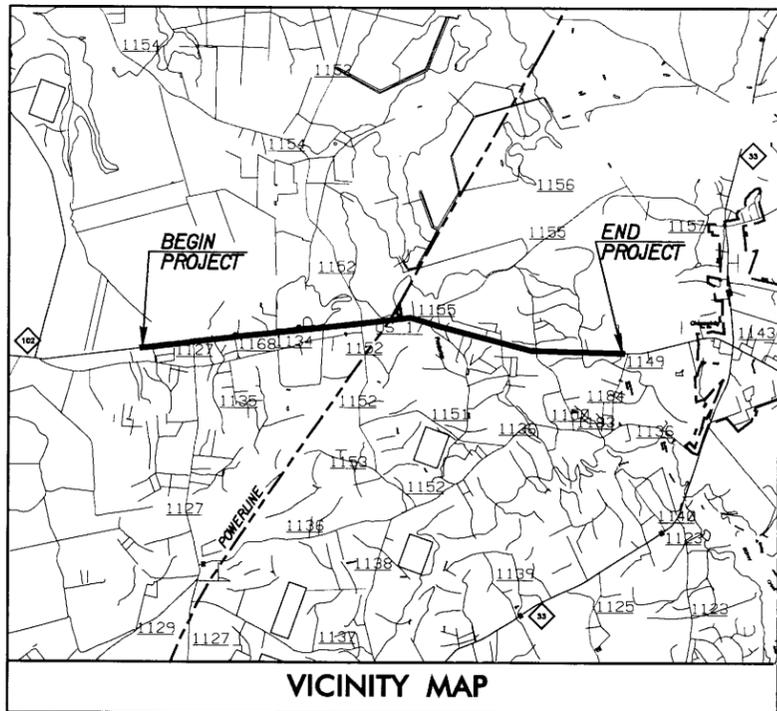
US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
TO SR 1149 (PRICE ROAD)

NOT TO SCALE

DATE: AUG-04

09/08/99

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



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

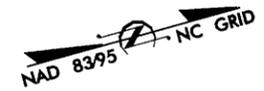
BEAUFORT COUNTY

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

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND CULVERT

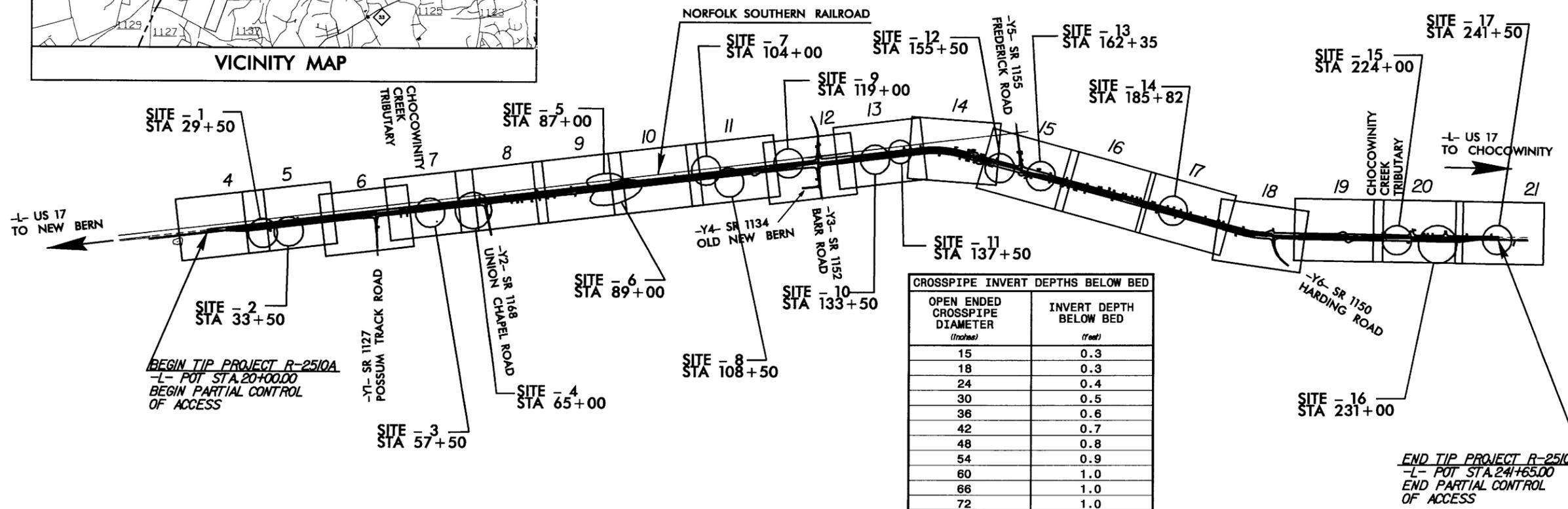
R-2510A: PERMIT SITE MAP

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2510A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34440.1.1	MAF-75-3(26)	PE	



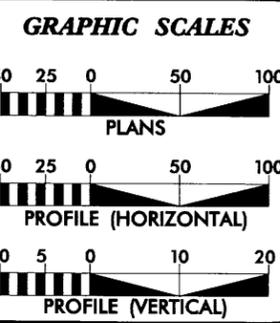
R-2510A

CONTRACT:



NOTES: THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD _____.

R-2510A: PERMIT SITE MAP
PREPARED BY: KO & ASSOCIATES, PC; RALEIGH, NC



DESIGN DATA

ADT 2006 =	10200 VPD
ADT 2026 =	17000 VPD
DHV =	12 %
D =	60 %
T =	12 % *
V =	60 MPH
* TTST 7%	DUAL 5%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2510A =	4.387 Mi
TOTAL LENGTH OF TIP PROJECT R-2510A =	4.837 Mi

Prepared In The Office Of:

Carter-Burgess
Consultants In Planning, Engineering, Architecture, Construction Management and Related Services
581 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27602

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: **DECEMBER 17, 2004**

LETTING DATE: **DECEMBER 19, 2006**

NCDOT CONTACT: **CATHY S. HOUSER, PE**
DESIGN SERVICES PROJECT ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

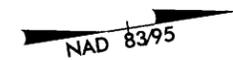
STATE DESIGN ENGINEER P.E.
**DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**

APPROVED DIVISION ADMINISTRATOR
DATE _____

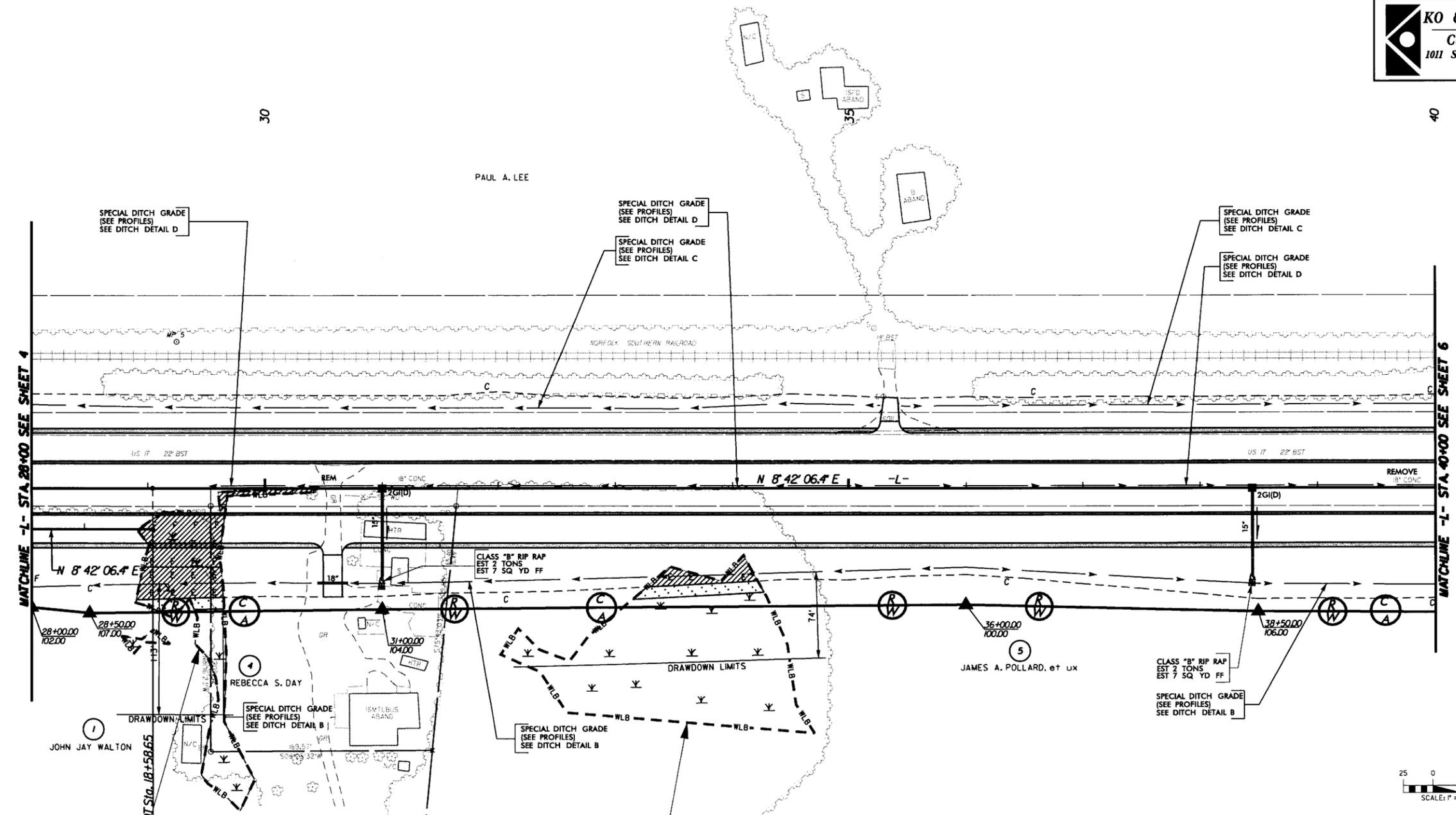
4/1/2005 R:\2510A\Hydraulics\Permits\R2510A_sitemaps.dgn KO & Associates, PC

NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 23 FOR -L- PROFILE
SEE SHEET 2C FOR DITCH DETAILS
ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED



PROJECT REFERENCE NO. R-2510A	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
Carter Burgess Consultants in Planning, Engineering, Architecture, Construction Management and Related Services 581 Glenwood Avenue, Suite 300 Raleigh, North Carolina 27602	
KO & ASSOCIATES, P.C. Consulting Engineers 1011 SCHAUH DR., SUITE #202 RALEIGH, N.C. 27606	



MATCHLINE -L- STA. 28+00 SEE SHEET 4

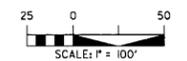
MATCHLINE -L- STA. 40+00 SEE SHEET 6

SITE 1
STA. 29+50

SITE 2
STA. 33+50

WETLAND SITES 1 & 2
PLAN VIEW

ADDITIONAL IMPACT DUE TO DRAWDOWN
SITE 1 0.04 AC
SITE 2 0.22 AC



LEGEND	
	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES EXCAVATION IN WETLAND
	DENOTES MECHANIZED CLEARING

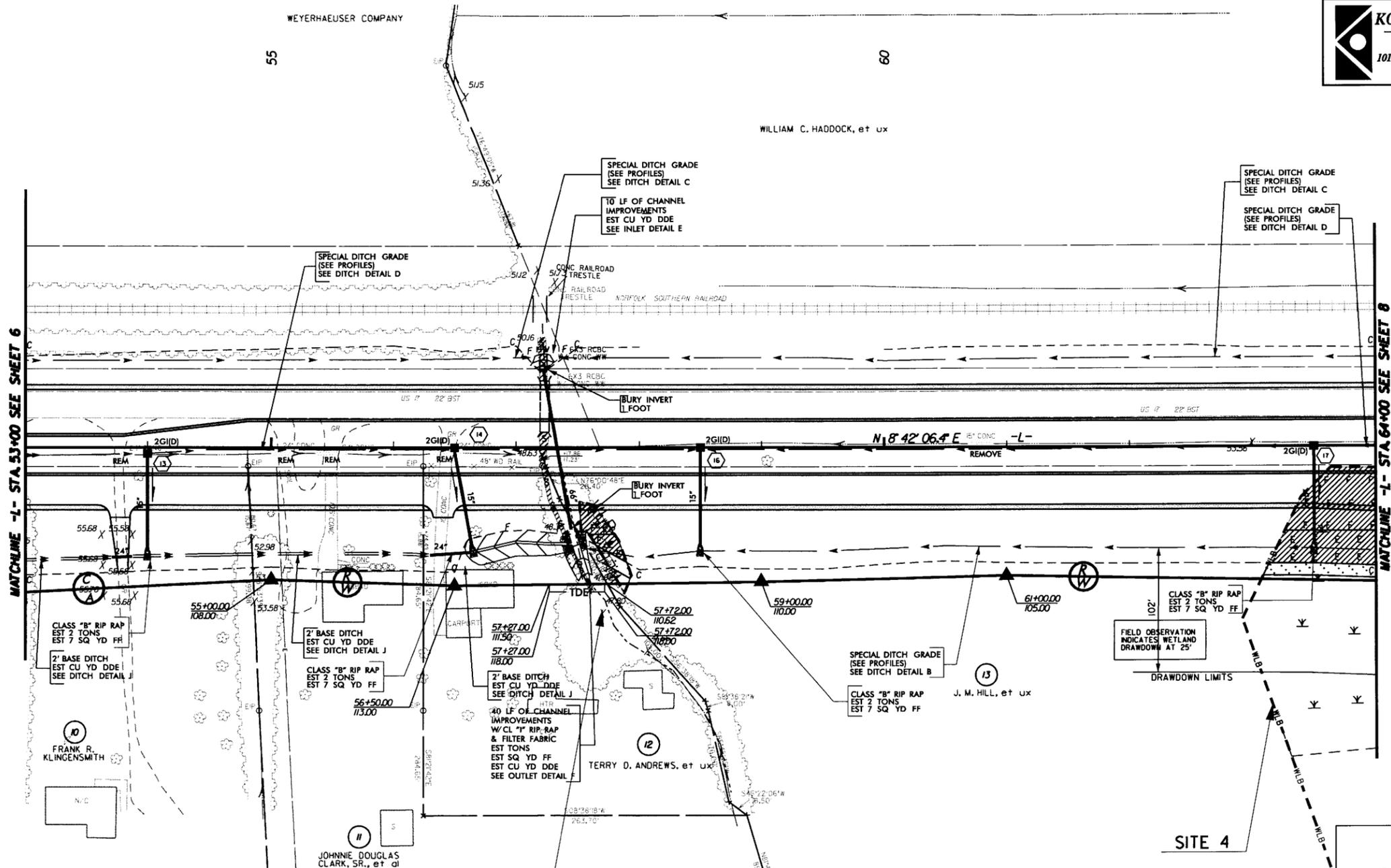
4/7/2005 NPermit.sAR2510A Permitt.05.dgn

NOTE: ALL DRIVEWAY CONNECTIONS ARE 6' ABC UNLESS OTHERWISE NOTED

SEE SHEET 24 FOR -L- PROFILE
SEE SHEET 2C FOR DITCH DETAILS
ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED



PROJECT REFERENCE NO. R-2510A	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small>	
Carter-Burgess <small>Consultants in Planning, Engineering, Architecture, Construction Management and Related Services 581 Glenwood Avenue, Suite 300 Raleigh, North Carolina 27602</small>	
 KO & ASSOCIATES, P.C. Consulting Engineers 1011 SCHAUER DR., SUITE #202 RALEIGH, N.C. 27606	



MATCHLINE -L- STA. 53+00 SEE SHEET 6

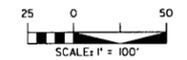
MATCHLINE -L- STA. 64+00 SEE SHEET 8

SITE 3
STA. 57+50

WETLAND SITES 3 & 4
PLAN VIEW

ADDITIONAL IMPACT DUE TO DRAWDOWN
SITE 4 0.03 AC

SITE 4



LEGEND

-  WETLAND
-  DENOTES TEMPORARY SURFACE WATER LOSS
-  DENOTES SURFACE WATER LOSS
-  DENOTES FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES MECHANIZED CLEARING

4/17/2005
3:22A V:\hydr\eval\loc\AR2510A_Perm.L07.dgn

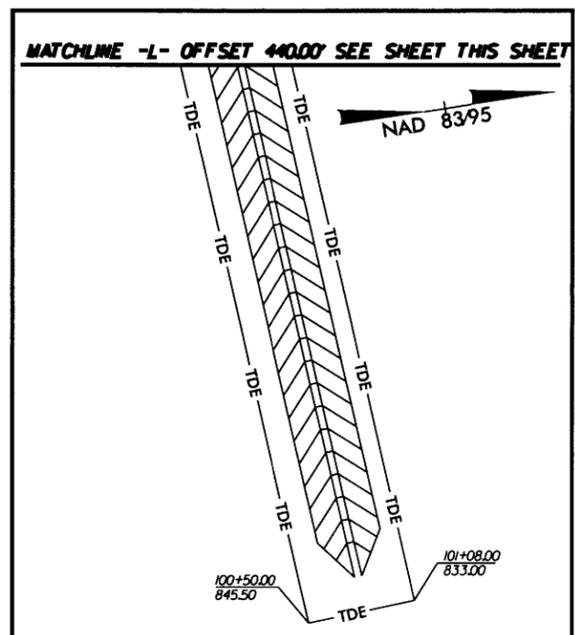
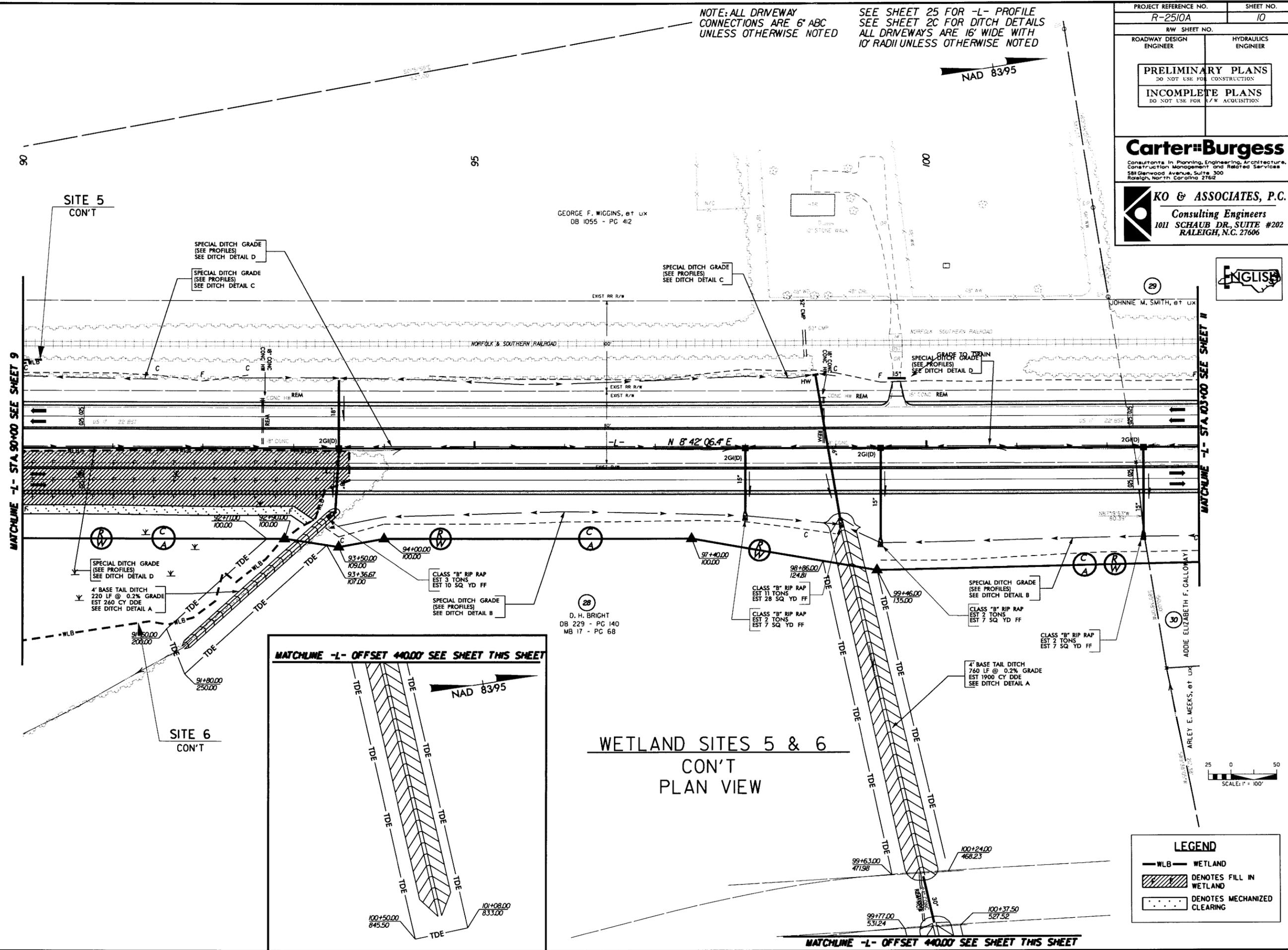
NOTE: ALL DRIVEWAY CONNECTIONS ARE 6' ABC UNLESS OTHERWISE NOTED

SEE SHEET 25 FOR -L- PROFILE SEE SHEET 2C FOR DITCH DETAILS ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO. R-2510A	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

Carter-Burgess
 Consultants in Planning, Engineering, Architecture, Construction Management and Related Services
 581 Glenwood Avenue, Suite 300
 Raleigh, North Carolina 27612

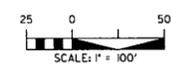
KO & ASSOCIATES, P.C.
 Consulting Engineers
 1011 SCHAUH DR., SUITE #202
 RALEIGH, N.C. 27606



**WETLAND SITES 5 & 6
 CON'T
 PLAN VIEW**

LEGEND

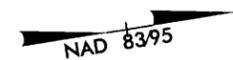
	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING



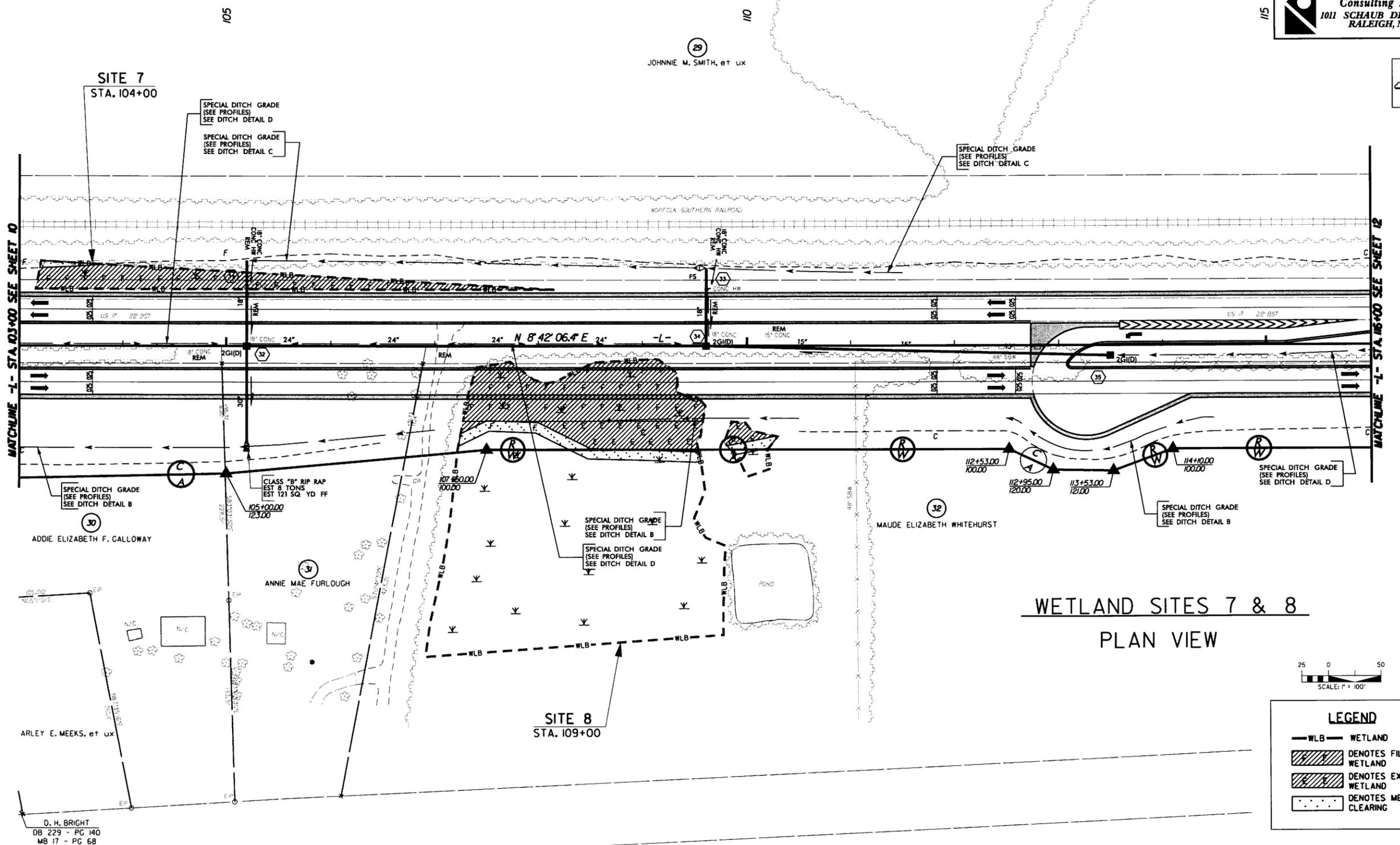
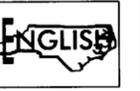
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 3:20 AM \\c:\projects\permits\NR2510A_Permit\11.dgn

NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 26 FOR -L- PROFILE
SEE SHEET 2C FOR DITCH DETAILS
ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED



PROJECT REFERENCE NO. R-2510A	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
Carter-Burgess <small>Consultants in Planning, Engineering, Architecture, Construction Management and Related Services 581 Glenwood Avenue, Suite 300 Raleigh, North Carolina 27612</small>	
 KO & ASSOCIATES, P.C. <small>Consulting Engineers 1011 SCHaub DR, SUITE #202 RALEIGH, N.C. 27606</small>	



WETLAND SITES 7 & 8
PLAN VIEW

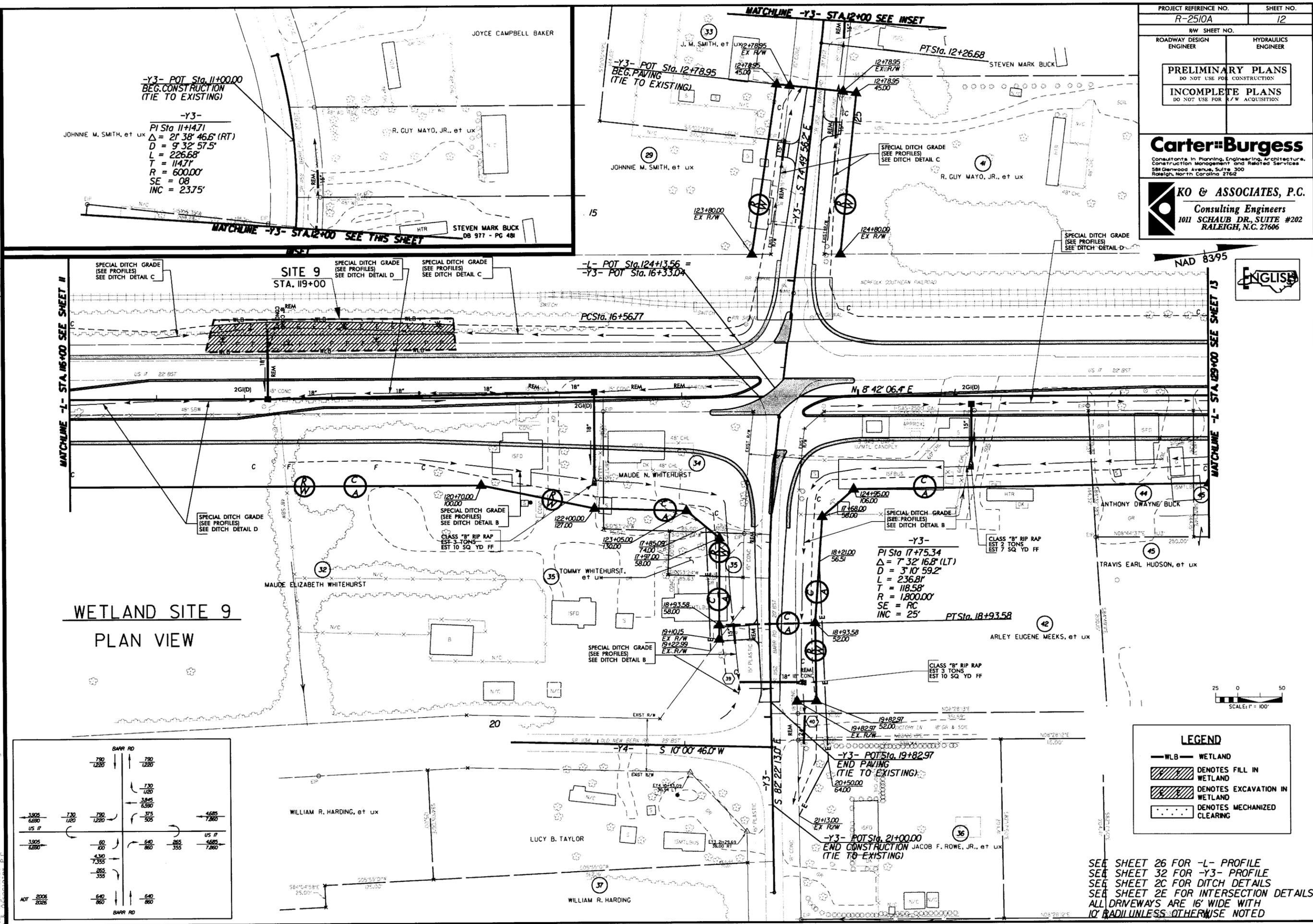


LEGEND	
	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES EXCAVATION IN WETLAND
	DENOTES MECHANIZED CLEARING

4/7/2005
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 D. H. BRIGHT
 DB 229 - PG 140
 MB 17 - PG 68

PROJECT REFERENCE NO. R-2510A	SHEET NO. 12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
Carter-Burgess <small>Consultants in Planning, Engineering, Architecture, Construction Management and Related Services 581 Danwood Avenue, Suite 300 Raleigh, North Carolina 27602</small>	
 KO & ASSOCIATES, P.C. Consulting Engineers 1011 SCHAUH DR., SUITE #202 RALEIGH, N.C. 27606	

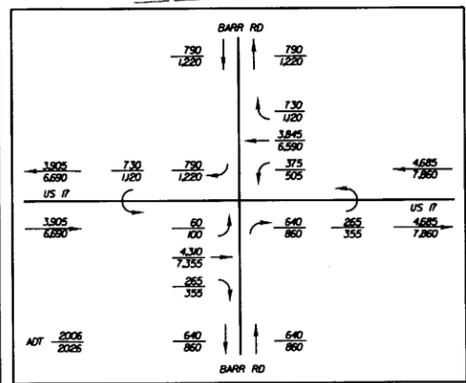
3-15-08 Y3 PROFILE REVISION
 1-27-08 DRAINAGE REVISION, ADDED EASEMENTS (PARCELS 32, 34, 35, 36 & 42)



LEGEND

-  WLB - WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES MECHANIZED CLEARING

SEE SHEET 26 FOR -L- PROFILE
 SEE SHEET 32 FOR -Y3- PROFILE
 SEE SHEET 2C FOR DITCH DETAILS
 SEE SHEET 2E FOR INTERSECTION DETAILS
 ALL DRIVEWAYS ARE 16' WIDE WITH
 10' RADII UNLESS OTHERWISE NOTED



1/7/2005
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4/11/2005 3:20 PM HydroQual\jtx\B\Permits\NR2572A_Permit_17.dgn
 3-15-05 DRAINAGE REVISION REVISED PIPE SIZE STA. 185+82

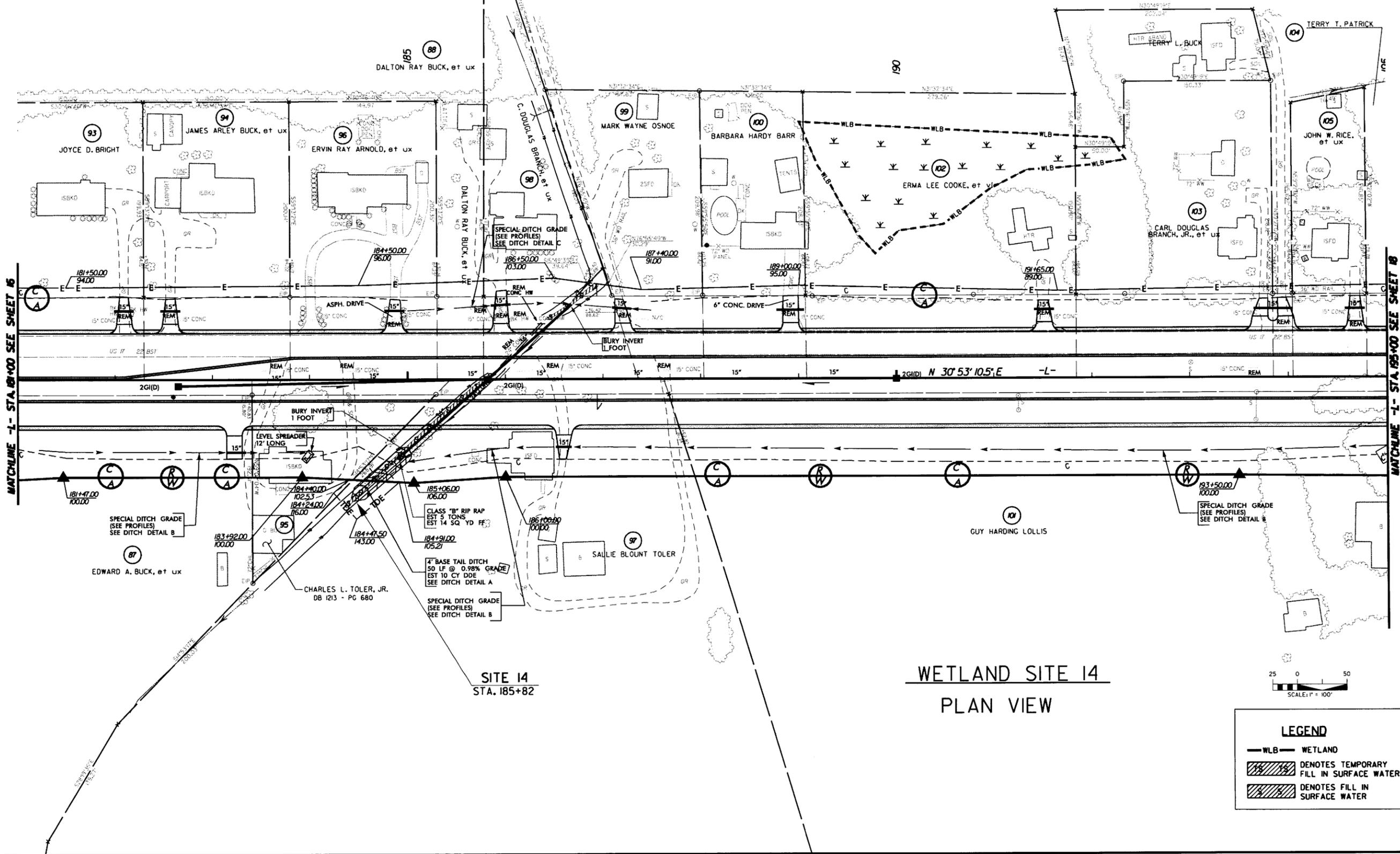
NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 29 FOR -L- PROFILE
 SEE SHEET 2C FOR DITCH DETAILS
 ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

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PROJECT REFERENCE NO. R-2510A	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	



**WETLAND SITE 14
 PLAN VIEW**



LEGEND

— WLB —	WETLAND
	DENOTES TEMPORARY FILL IN SURFACE WATER
	DENOTES FILL IN SURFACE WATER

1-27-05 DRAINAGE REVISION STRUCTURE 7426

NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 34 FOR -DET2- PROFILE
SEE SHEET 2C FOR DITCH DETAILS
ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

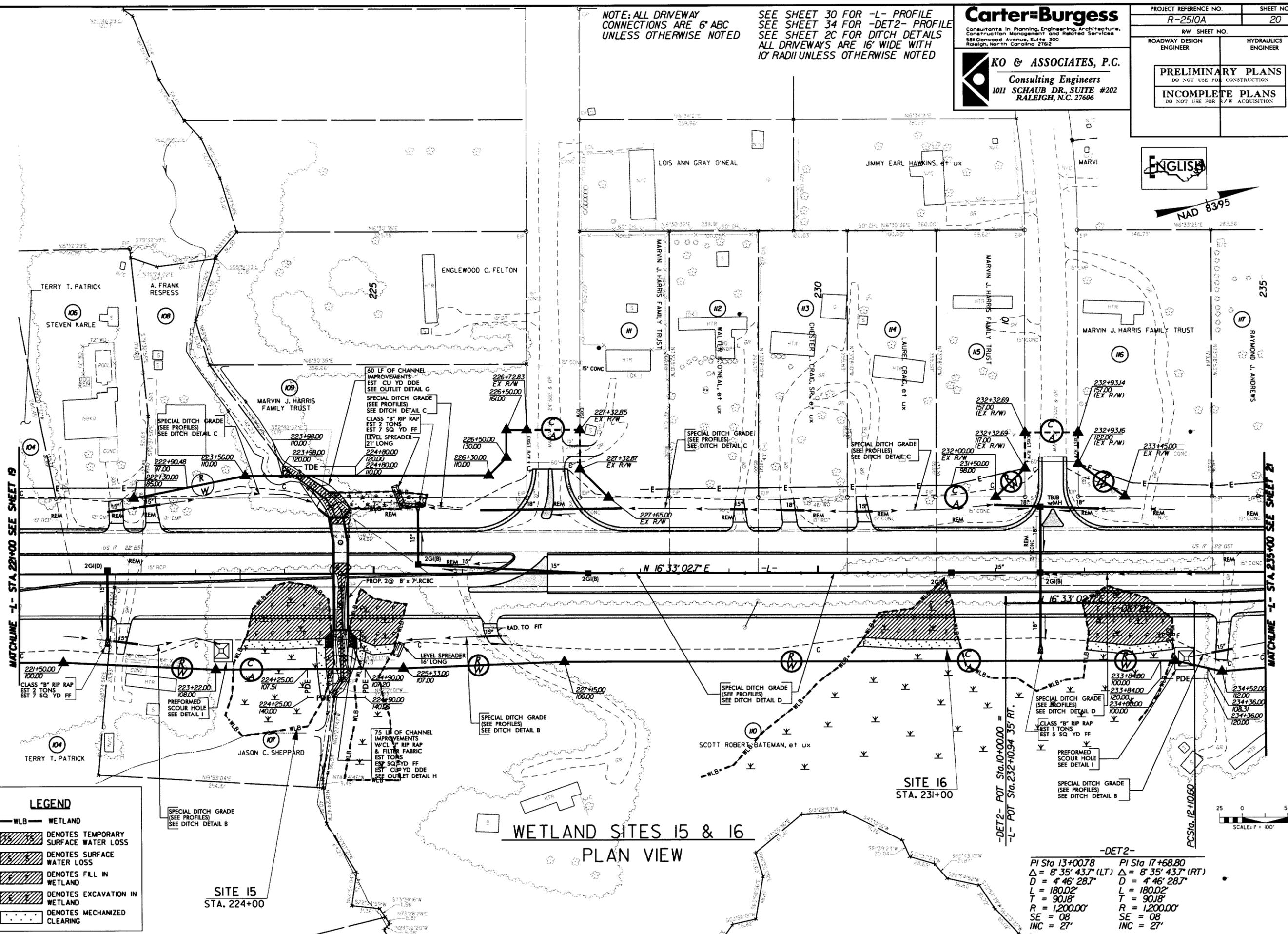
Carter-Burgess
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588 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27602

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Consulting Engineers
1011 SCHAUB DR., SUITE #202
RALEIGH, N.C. 27606

PROJECT REFERENCE NO. R-2510A	SHEET NO. 20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	



NAD 83/95



LEGEND

- WLB WETLAND
- DENOTES TEMPORARY SURFACE WATER LOSS
- DENOTES SURFACE WATER LOSS
- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING

WETLAND SITES 15 & 16
PLAN VIEW

-DET2-

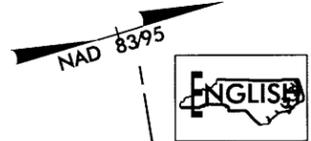
PI Sta 13+00.78	PI Sta 17+68.80
$\Delta = 8' 35" 43.7" (LT)$	$\Delta = 8' 35" 43.7" (RT)$
$D = 4' 46" 28.7"$	$D = 4' 46" 28.7"$
$L = 180.02'$	$L = 180.02'$
$T = 90.18'$	$T = 90.18'$
$R = 1,200.00'$	$R = 1,200.00'$
$SE = 08$	$SE = 08$
$INC = 27'$	$INC = 27'$



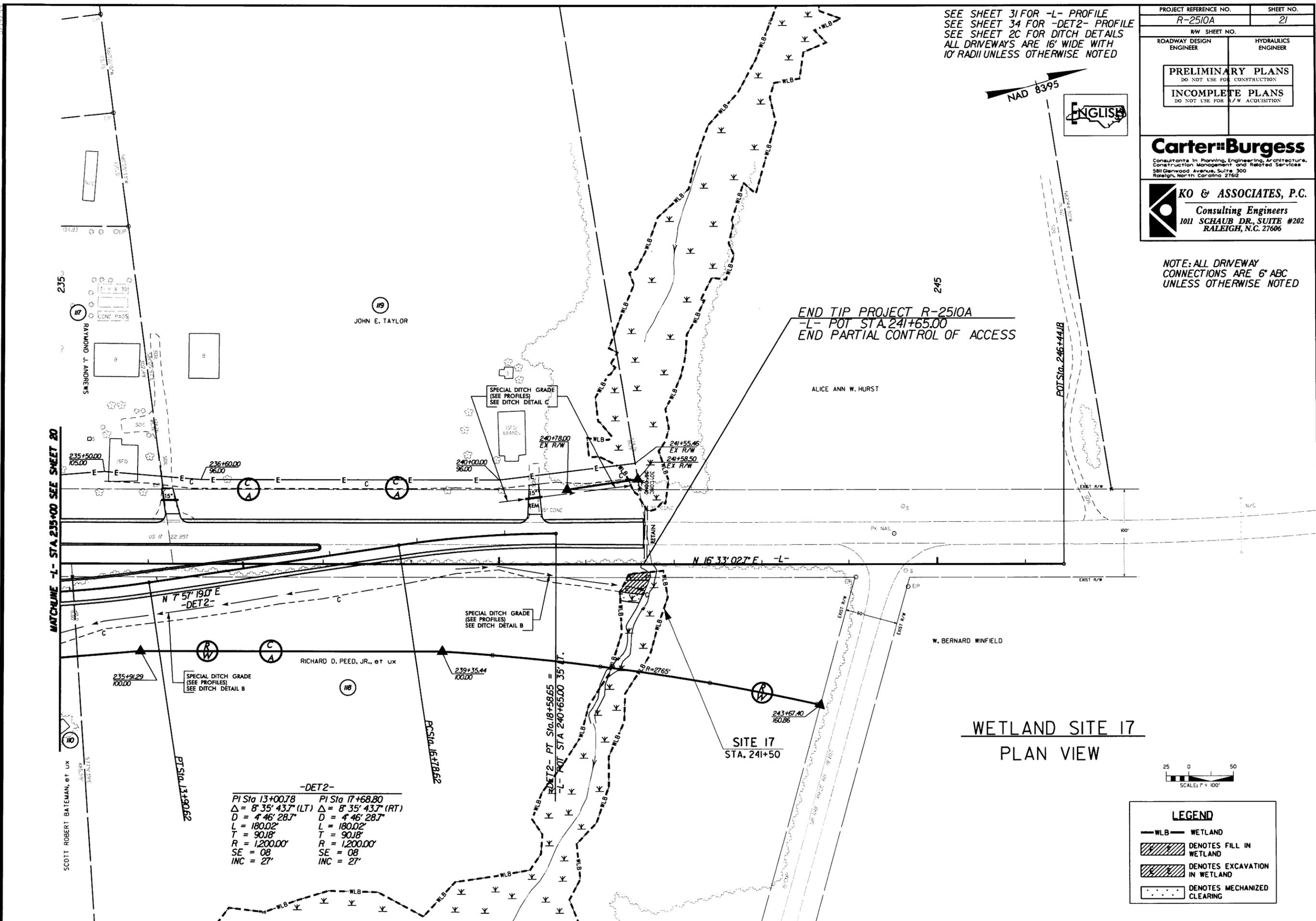
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31026\hydro\plans\Permit\2510A_Permit\1-20.dgn

PROJECT REFERENCE NO. R-2510A	SHEET NO. 21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
Carter Burgess Consultants in Planning, Engineering, Architecture, Construction Management and Related Services 5811 Glenwood Avenue, Suite 300 Raleigh, North Carolina 27612	
KO & ASSOCIATES, P.C. Consulting Engineers 1011 SCHAUH DR., SUITE #202 RALEIGH, N.C. 27606	

SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 34 FOR -DET2- PROFILE
SEE SHEET 2C FOR DITCH DETAILS
ALL DRIVEWAYS ARE 16' WIDE WITH
10' RADII UNLESS OTHERWISE NOTED



NOTE: ALL DRIVEWAY CONNECTIONS ARE 6' ABC UNLESS OTHERWISE NOTED

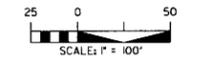


END TIP PROJECT R-2510A
-L- POT STA. 241+65.00
END PARTIAL CONTROL OF ACCESS

MATCHLINE -L- STA. 235+00 SEE SHEET 20

-DET2-	
PI Sta 13+00.78	PI Sta 17+68.80
$\Delta = 8' 35' 43.7''$ (LT)	$\Delta = 8' 35' 43.7''$ (RT)
$D = 4' 46' 28.7''$	$D = 4' 46' 28.7''$
$L = 180.02'$	$L = 180.02'$
$T = 90.18'$	$T = 90.18'$
$R = 1,200.00'$	$R = 1,200.00'$
$SE = 08'$	$SE = 08'$
$INC = 27'$	$INC = 27'$

WETLAND SITE 17 PLAN VIEW



LEGEND	
	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES EXCAVATION IN WETLAND
	DENOTES MECHANIZED CLEARING

4/1/2005
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ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

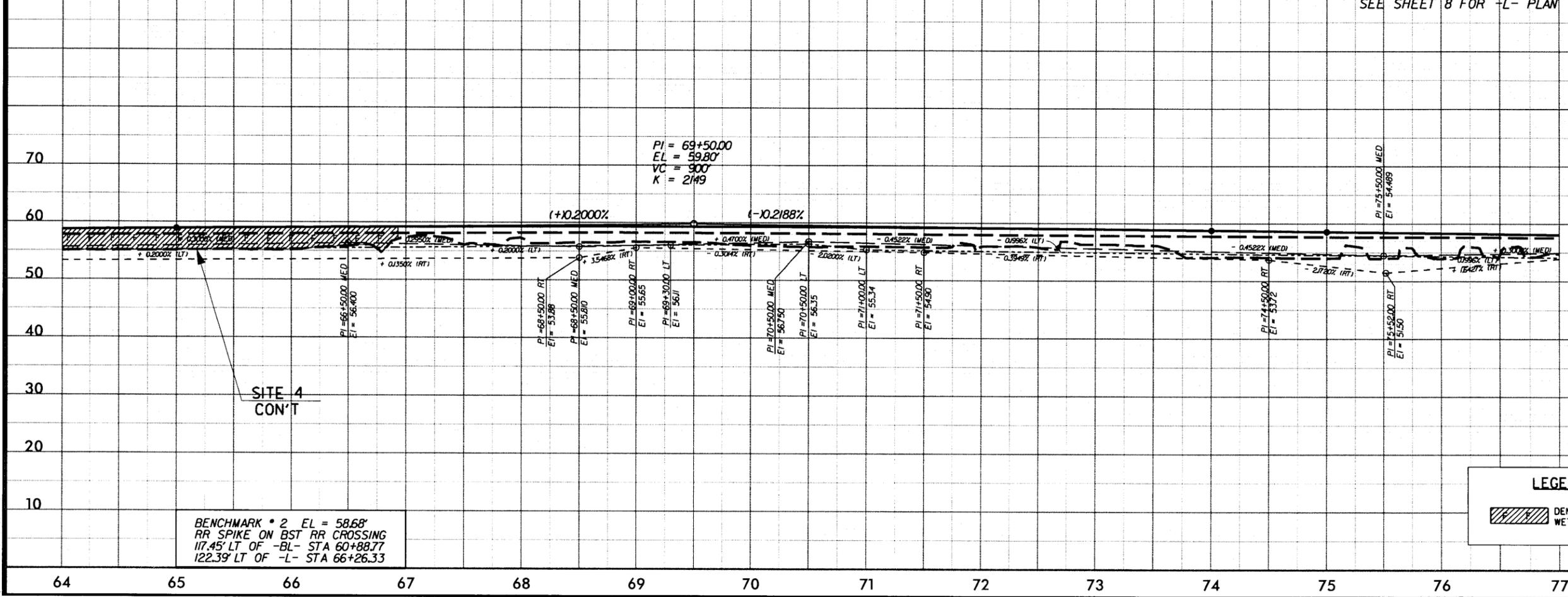
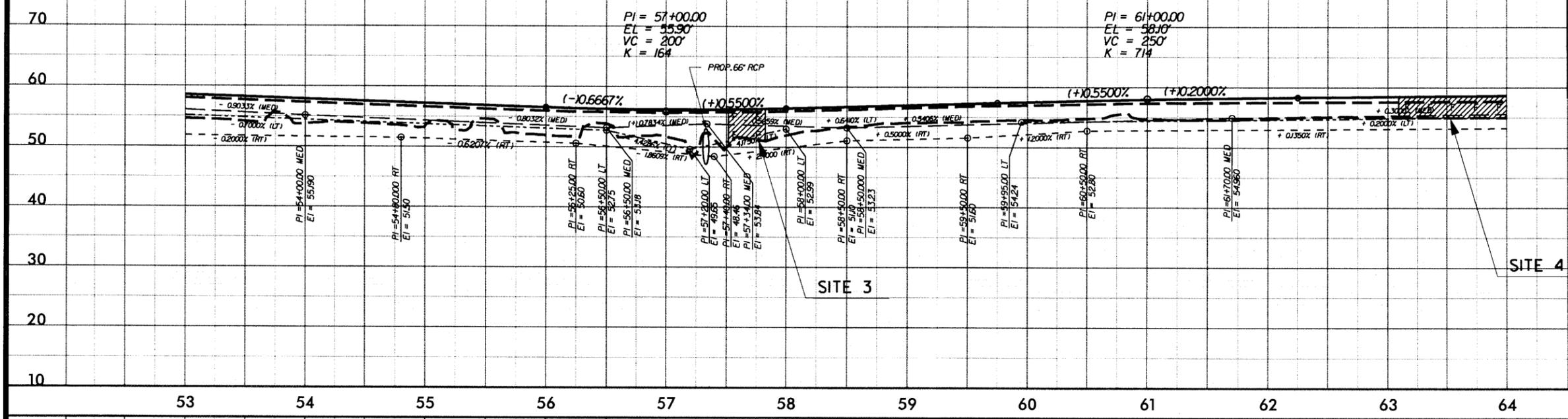
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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RALEIGH, N.C. 27606

STRUCTURE HYDRAULIC DATA
10 66" RCP STA 57+33.2 -L-

DESIGN DISCHARGE	= 70	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 52.81	FT
BASE DISCHARGE	= 80	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 53.02	FT
OVERTOPPING DISCHARGE	= 170	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 56.20	FT



LEGEND

DENOTES FILL IN WETLAND

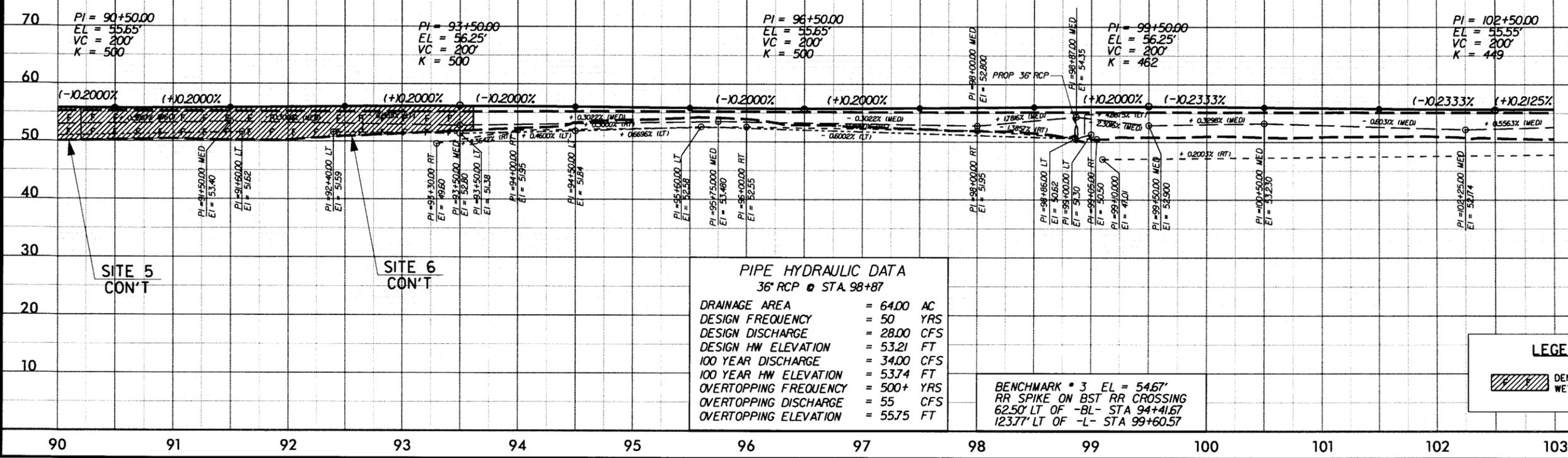
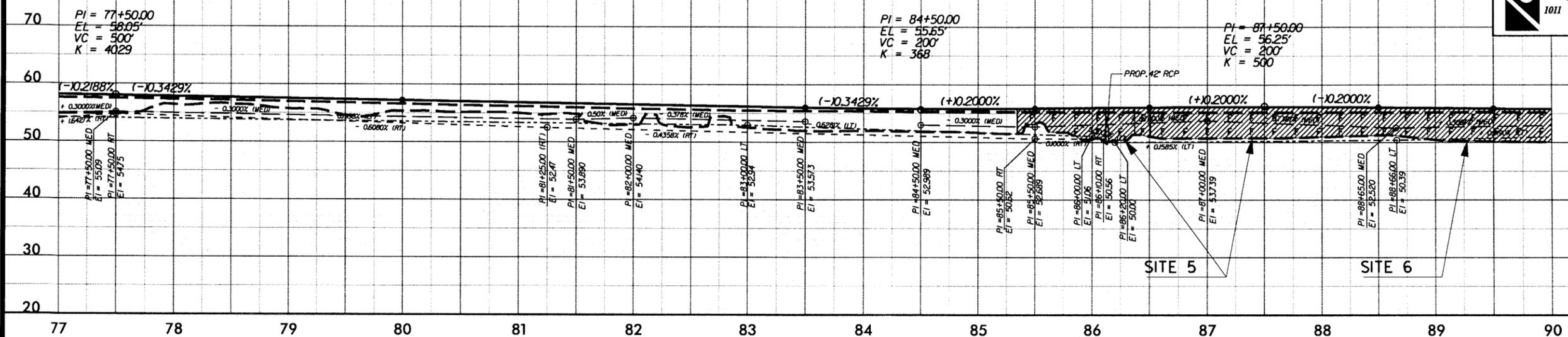
PRELIMINARY PLANS
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PIPE HYDRAULIC DATA
42" RCP @ STA. 86+13

DRAINAGE AREA = 64.00 AC
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 30.00 CFS
DESIGN HW ELEVATION = 52.53 FT
100 YEAR DISCHARGE = 36.00 CFS
100 YEAR HW ELEVATION = 52.88 FT
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 79 CFS
OVERTOPPING ELEVATION = 55.77 FT



PIPE HYDRAULIC DATA
36" RCP @ STA. 98+87

DRAINAGE AREA = 64.00 AC
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 28.00 CFS
DESIGN HW ELEVATION = 53.21 FT
100 YEAR DISCHARGE = 34.00 CFS
100 YEAR HW ELEVATION = 53.74 FT
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 55 CFS
OVERTOPPING ELEVATION = 55.75 FT

BENCHMARK * 3 EL = 54.67'
RR SPIKE ON BST RR CROSSING
62.50' LT OF -BL- STA 94+41.67
123.77' LT OF -L- STA 99+60.57

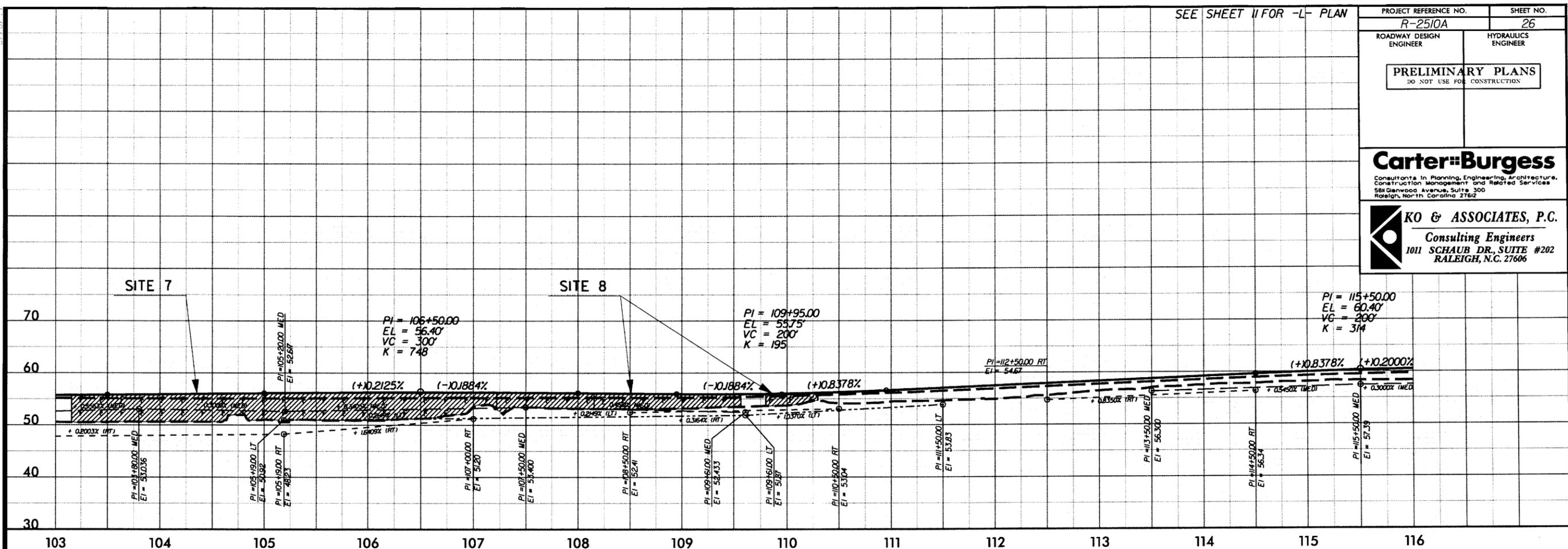
LEGEND
[Hatched Box] DENOTES FILL IN WETLAND

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

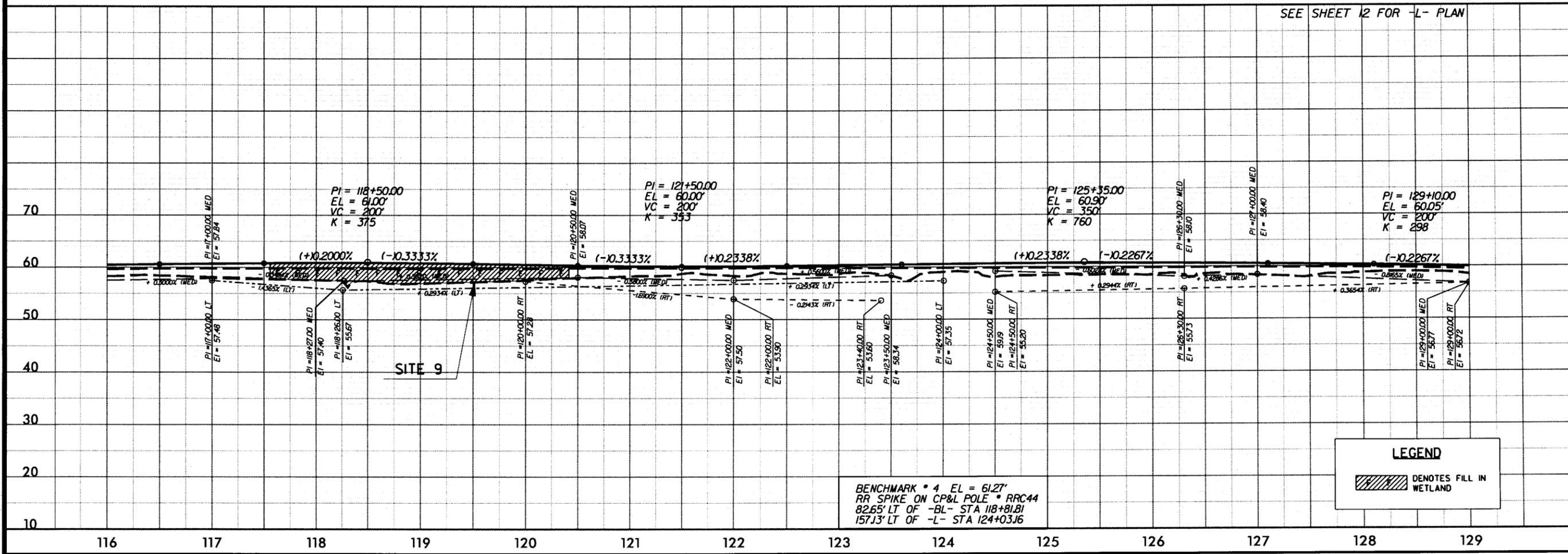
Carter-Burgess

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PI = 115+50.00
EL = 60.40'
VC = 200'
K = 314



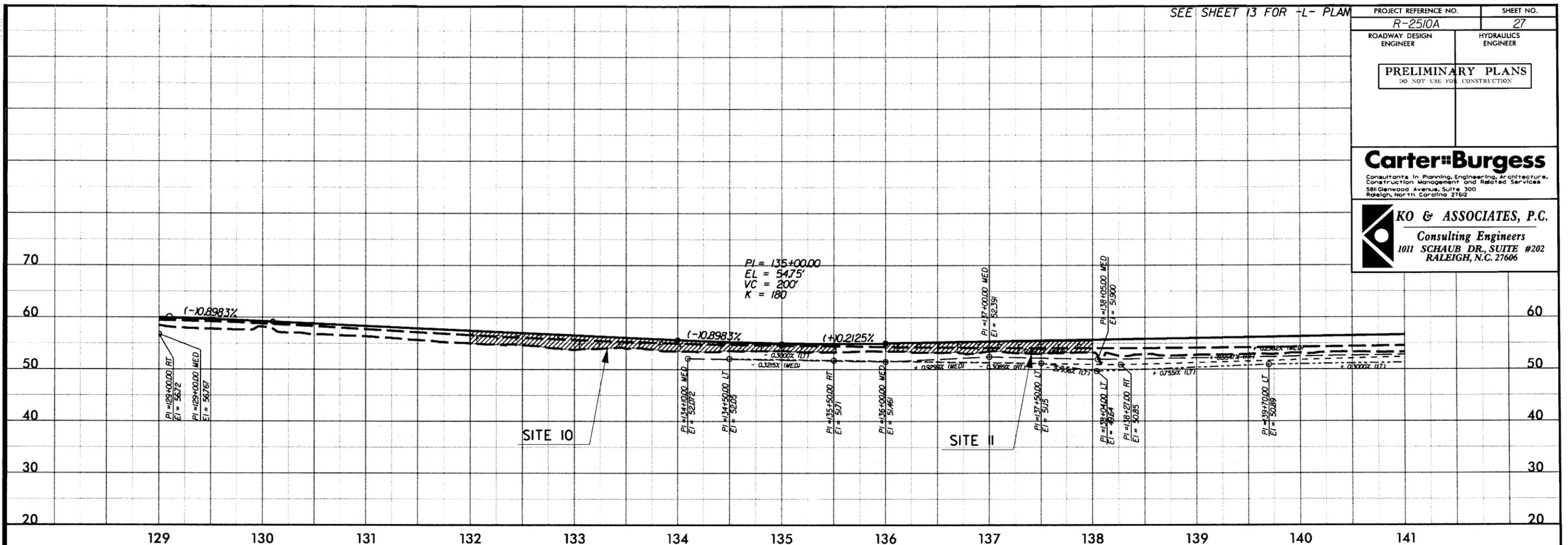
BENCHMARK * 4 EL = 61.27'
RR SPIKE ON CP&L POLE * RRC44
82.65' LT OF -BL- STA 118+81.81
157.3' LT OF -L- STA 124+03.16

LEGEND

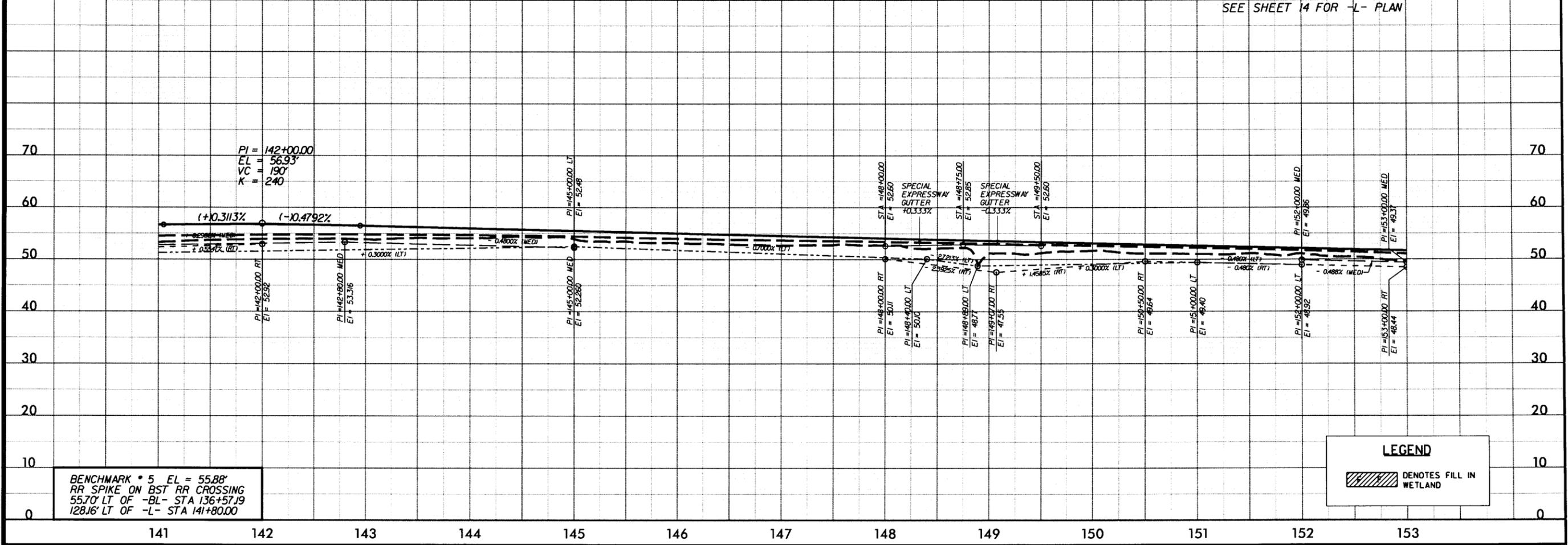
 DENOTES FILL IN WETLAND

SEE SHEET 13 FOR -L- PLAN

PROJECT REFERENCE NO. R-2510A	SHEET NO. 27
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
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SEE SHEET 14 FOR -L- PLAN



BENCHMARK * 5 EL = 55.88'
RR SPIKE ON BST RR CROSSING
55.70' LT OF -BL- STA 136+57.19
128.16' LT OF -L- STA 141+80.00

LEGEND

DENOTES FILL IN WETLAND

PIPE HYDRAULIC DATA
36" RCP @ STA. 155+45

DRAINAGE AREA	= 54.95 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 17.00 CFS
DESIGN HW ELEVATION	= 46.55 FT
100 YEAR DISCHARGE	= 21.00 CFS
100 YEAR HW ELEVATION	= 46.58 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 57 CFS
OVERTOPPING ELEVATION	= 50.26 FT

PIPE HYDRAULIC DATA
36" RCP @ STA. 162+35

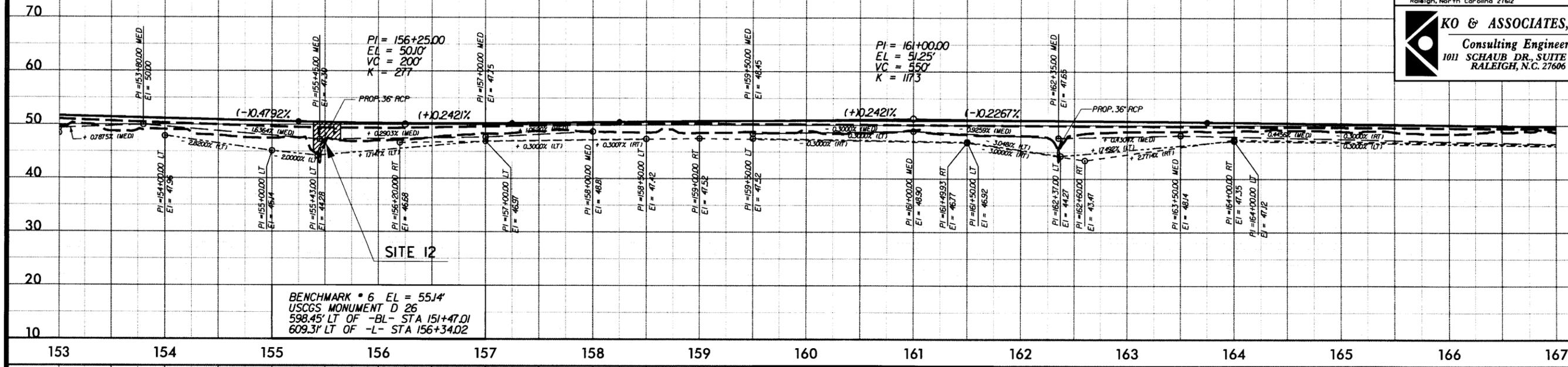
DRAINAGE AREA	= 11.80 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 8.10 CFS
DESIGN HW ELEVATION	= 45.90 FT
100 YEAR DISCHARGE	= 9.80 CFS
100 YEAR HW ELEVATION	= 46.19 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 30 CFS
OVERTOPPING ELEVATION	= 50.86 FT

SEE SHEET 15 FOR -L- PLAN

PROJECT REFERENCE NO.	R-2510A	SHEET NO.	28
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

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Raleigh, North Carolina 27602

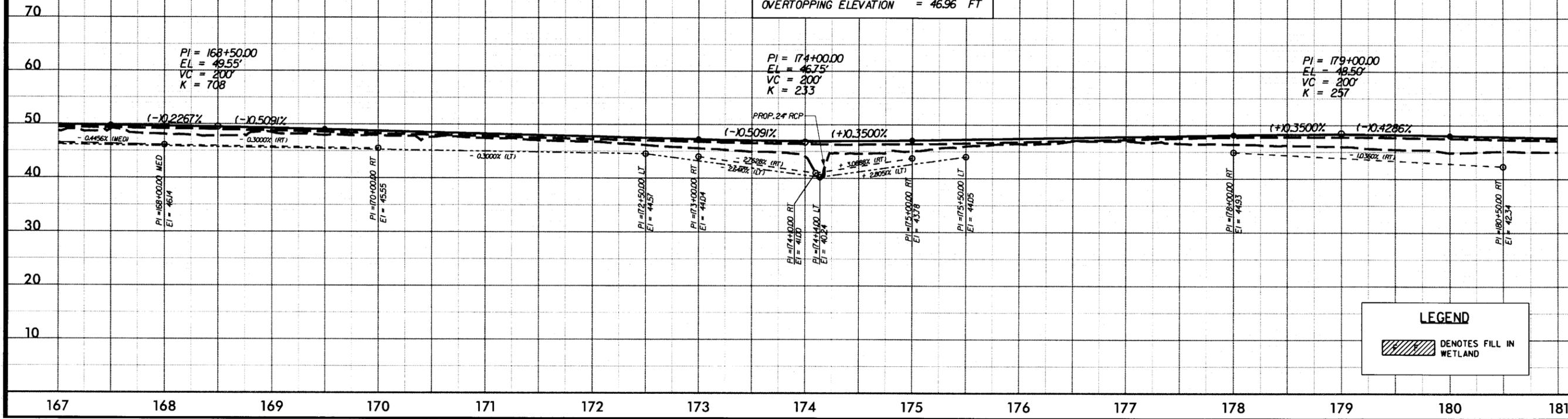
KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHAUH DR., SUITE #202
RALEIGH, N.C. 27606



PIPE HYDRAULIC DATA
24" RCP @ STA. 174+18

DRAINAGE AREA	= 22.70 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 11.00 CFS
DESIGN HW ELEVATION	= 42.22 FT
100 YEAR DISCHARGE	= 13.00 CFS
100 YEAR HW ELEVATION	= 42.45 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 35 CFS
OVERTOPPING ELEVATION	= 46.96 FT

SEE SHEET 16 FOR -L- PLAN



LEGEND
DENOTES FILL IN WETLAND

SEE SHEET 19 FOR -L- PLAN

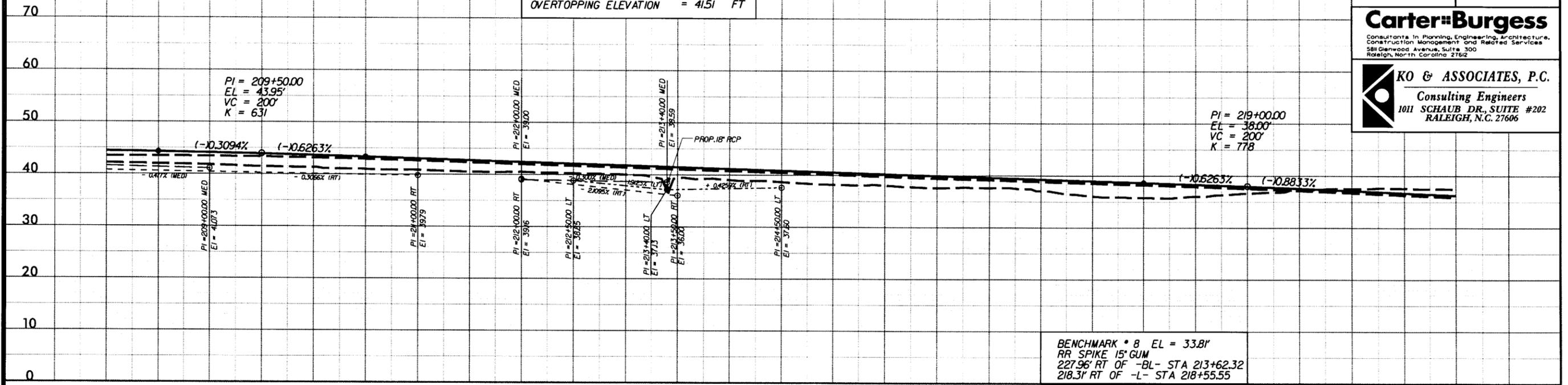
PROJECT REFERENCE NO. R-2510A	SHEET NO. 30
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

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PIPE HYDRAULIC DATA
 18" RCP @ STA. 213+40

DRAINAGE AREA	= 1.11	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 2.40	CFS
DESIGN HW ELEVATION	= 38.03	FT
100 YEAR DISCHARGE	= 2.90	CFS
100 YEAR HW ELEVATION	= 38.14	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 14	CFS
OVERTOPPING ELEVATION	= 41.51	FT



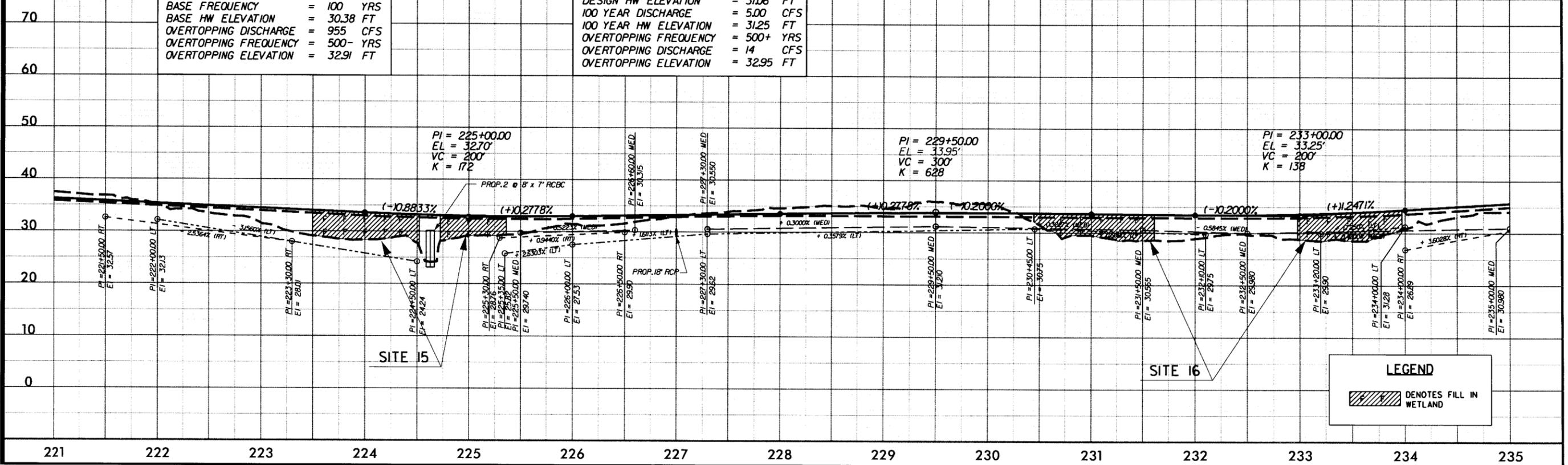
STRUCTURE HYDRAULIC DATA
 20" 8' x 7' RCBC STA. 224+62.8 -L-

DESIGN DISCHARGE	= 470	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 29.84	FT
BASE DISCHARGE	= 590	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 30.38	FT
OVERTOPPING DISCHARGE	= 955	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 32.91	FT

PIPE HYDRAULIC DATA
 18" RCP @ STA. 227+00

DRAINAGE AREA	= 4.32	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 4.10	CFS
DESIGN HW ELEVATION	= 31.06	FT
100 YEAR DISCHARGE	= 5.00	CFS
100 YEAR HW ELEVATION	= 31.25	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 14	CFS
OVERTOPPING ELEVATION	= 32.95	FT

SEE SHEET 20 FOR -L- PLAN



LEGEND

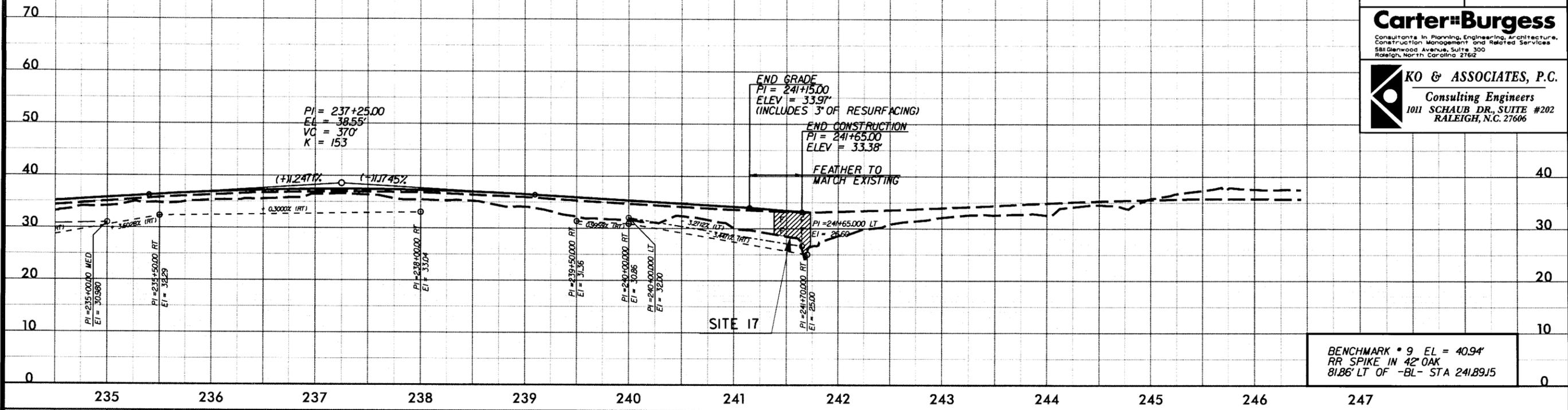
DENOTES FILL IN WETLAND

PRELIMINARY PLANS
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Raleigh, North Carolina 27612

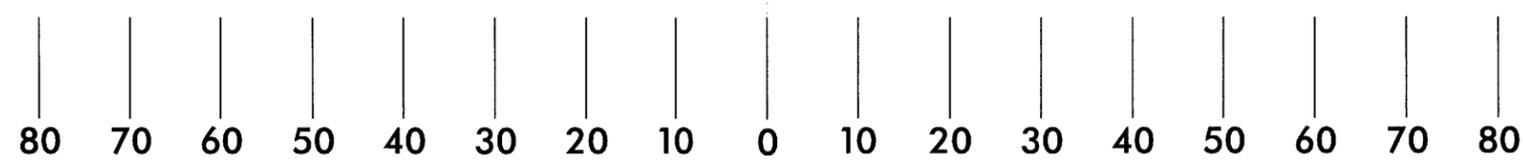
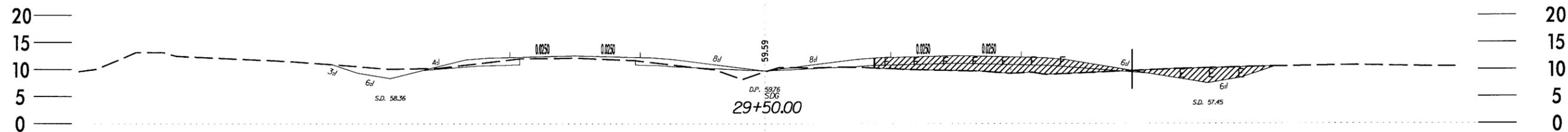
KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHAUH DR., SUITE #202
RALEIGH, N.C. 27606



BENCHMARK * 9 EL = 40.94'
RR SPIKE IN 42" OAK
81.86' LT OF -BL- STA 241.8915

LEGEND
[Hatched Box] DENOTES FILL IN WETLAND

PROJECT REFERENCE NO. R-2510A	SHEET NO. SITE 1
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND	
	DENOTES FILL IN WETLANDS
	DENOTES EXCAVATION IN WETLANDS

X-SECTION
SITE 1
STA 29+50



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

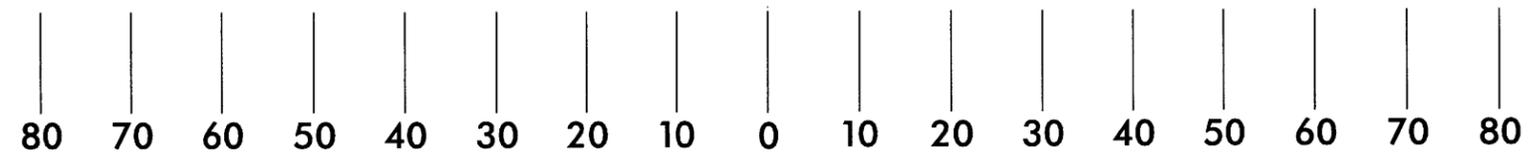
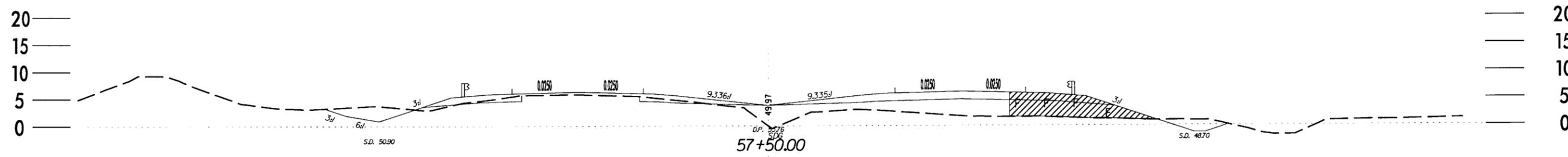
BEAUFORT COUNTY
34440.11 (R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

DATE: APR-05 SHEET 1 OF 14

PROJECT REFERENCE NO. R-2510A	SHEET NO. SITE 3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND

 DENOTES FILL IN WETLANDS

X-SECTION
SITE 3
STA 57 + 50



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

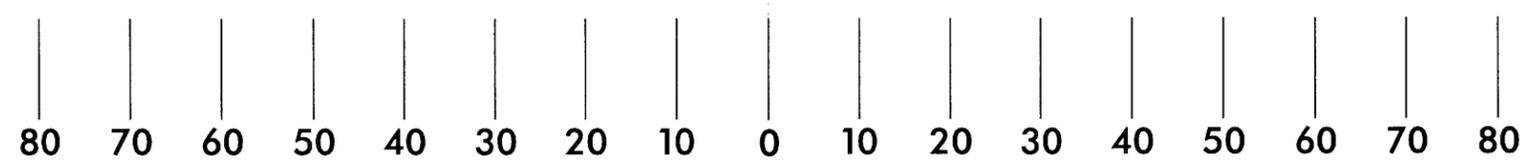
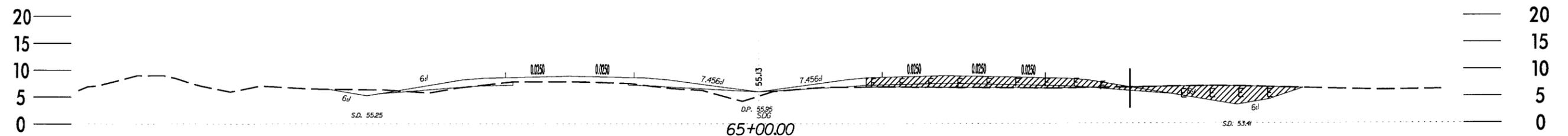
BEAUFORT COUNTY
 34440.11 (R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'

DATE: APR-05 SHEET **3** OF **14**

PROJECT REFERENCE NO. <i>R-2510A</i>	SHEET NO. <i>SITE 4</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND	
	DENOTES FILL IN WETLANDS
	DENOTES EXCAVATION IN WETLANDS

X-SECTION
SITE 4
STA 65+00



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

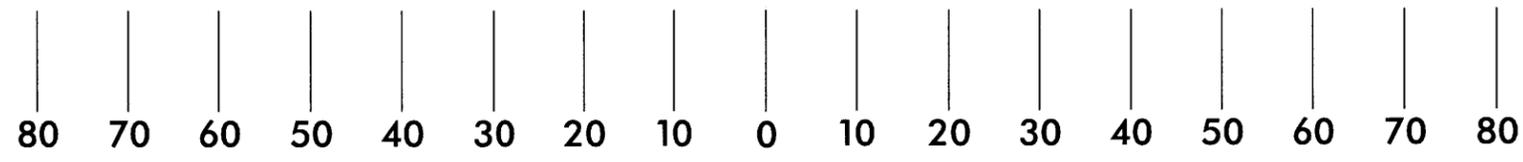
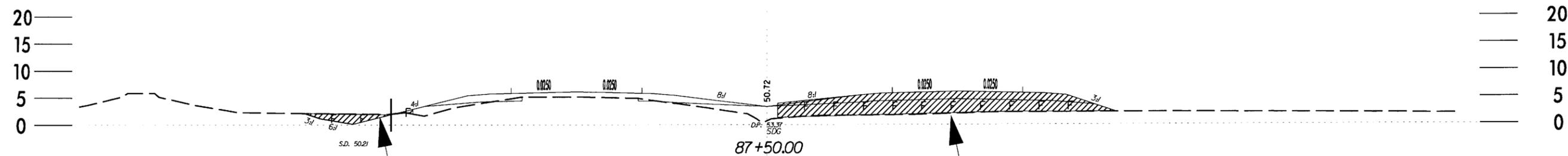
BEAUFORT COUNTY
 34440.11 (R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'

DATE: APR-05 SHEET 4 OF 14

PROJECT REFERENCE NO. R-2510A	SHEET NO. SITES 5&6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	



LEGEND	
	DENOTES FILL IN WETLANDS
	DENOTES EXCAVATION IN WETLANDS

X-SECTION
SITES 5 & 6
STA 87 + 00



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

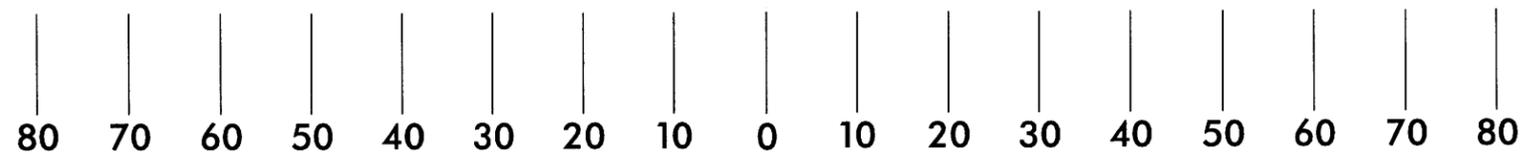
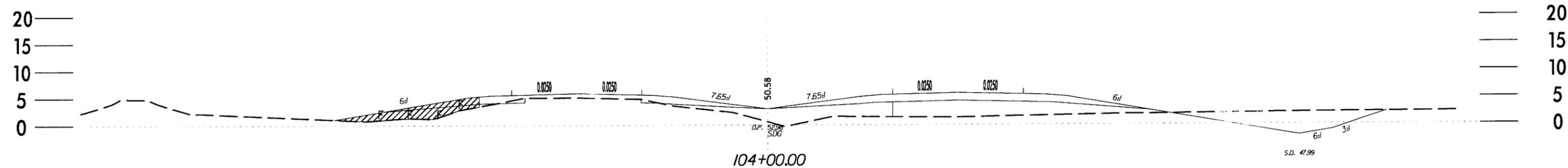
BEAUFORT COUNTY
34440.IJ (R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

DATE: APR-05 SHEET 5 OF 14

PROJECT REFERENCE NO. <i>R-2510A</i>	SHEET NO. <i>SITE 7</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND

 DENOTES FILL IN WETLANDS

X-SECTION
SITE 7
STA 104+00



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

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

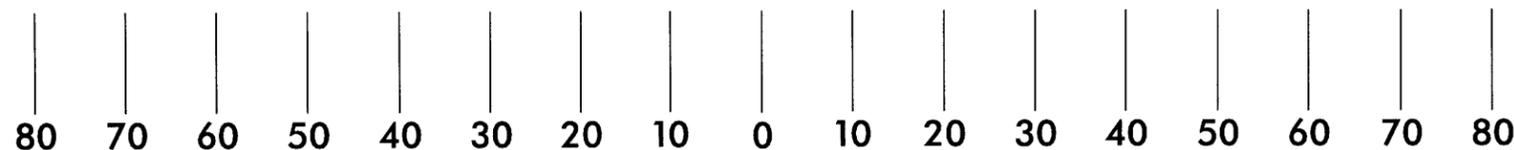
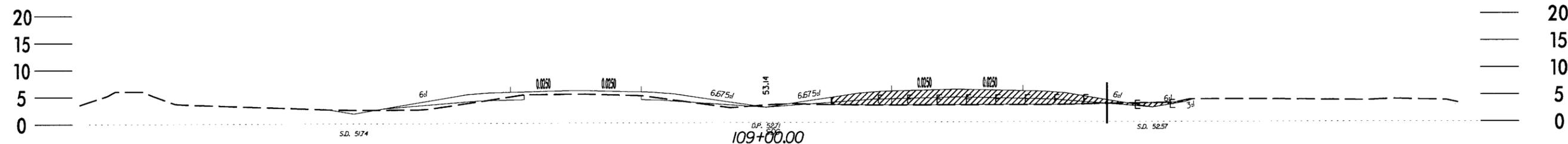
US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
TO SR 1149 (PRICE ROAD)

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

DATE: APR-05

SHEET 6 OF 14

PROJECT REFERENCE NO. <i>R-2510A</i>	SHEET NO. <i>SITE 8</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	



LEGEND	
	DENOTES FILL IN WETLANDS
	DENOTES EXCAVATION IN WETLANDS

X-SECTION
SITE 8
STA 109+00



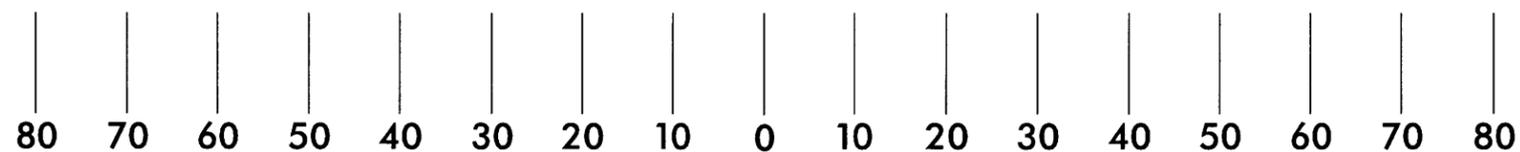
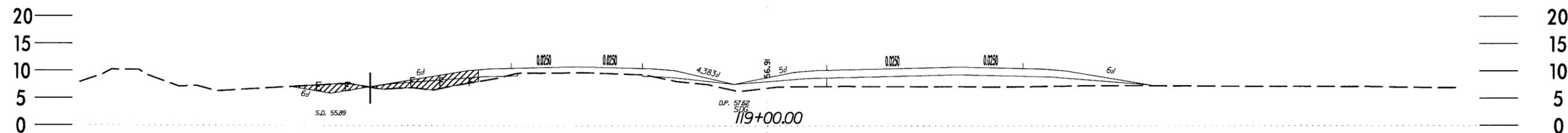
NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY
 34440.11(R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'

PROJECT REFERENCE NO. <i>R-2510A</i>	SHEET NO. <i>SITE 9</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	



LEGEND	
	DENOTES FILL IN WETLANDS
	DENOTES EXCAVATION IN WETLANDS

X-SECTION
SITE 9
STA 119+00



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

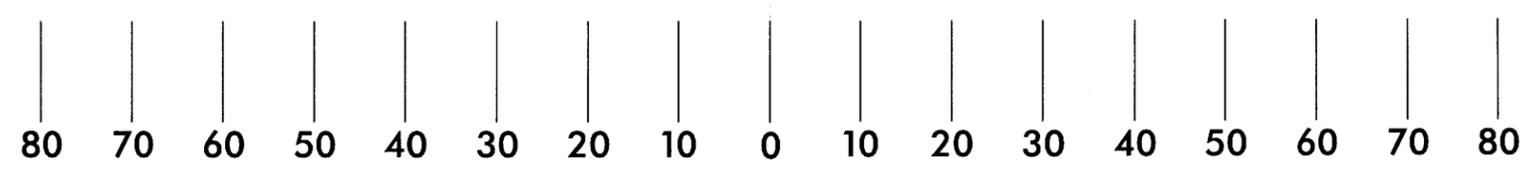
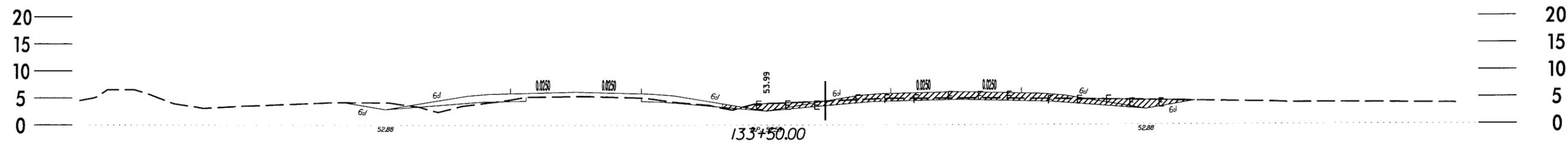
BEAUFORT COUNTY
34440.11 (R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

DATE: APR-05 SHEET 8 OF 14

PROJECT REFERENCE NO. R-2510A	SHEET NO. SITE 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	



LEGEND	
	DENOTES FILL IN WETLANDS
	DENOTES EXCAVATION IN WETLANDS

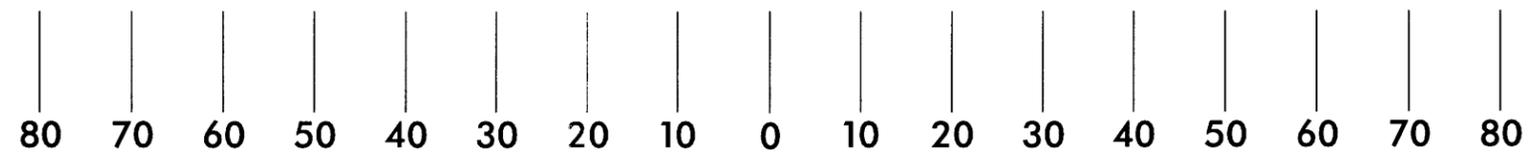
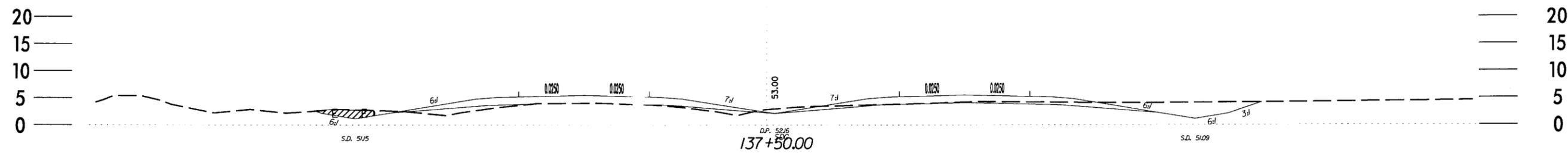
X-SECTION
SITE 10
STA 133 + 50



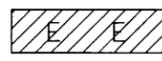
NORTH CAROLINA
DEPARTMENT OF HIGHWAYS
 BEAUFORT COUNTY
 34440.I.I (R-2510A)
 US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
 TO SR 1149 (PRICE ROAD)
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'
 DATE: APR-05

SHEET **9** OF **14**

PROJECT REFERENCE NO. <i>R-2510A</i>	SHEET NO. <i>SITE 11</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND

 DENOTES EXCAVATION IN WETLANDS

X-SECTION
SITE 11
STA 137 + 50



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY
34440.L1 (R-2510A)

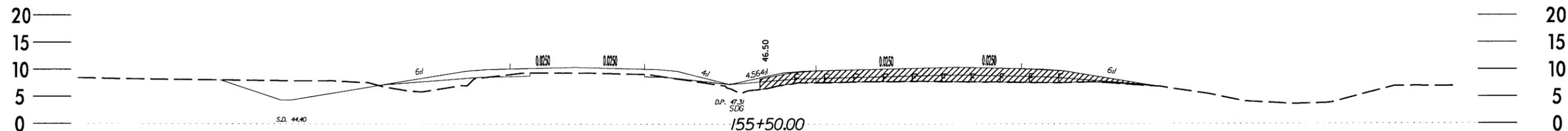
US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
TO SR 1149 (PRICE ROAD)

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

DATE: APR-05

SHEET 10 OF 14

PROJECT REFERENCE NO. <i>R-2510A</i>	SHEET NO. <i>SITE 12</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND

 DENOTES FILL IN WETLANDS

X-SECTION
SITE 12
STA 155 + 50



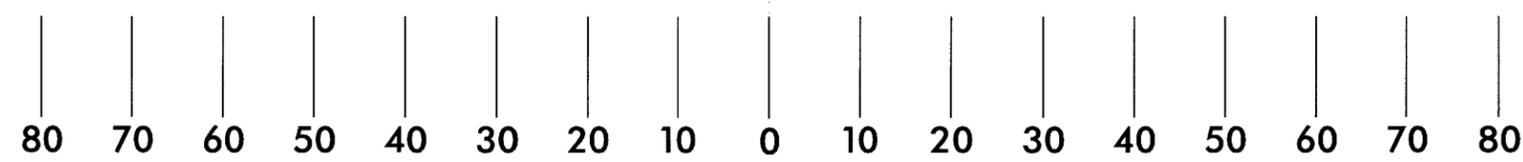
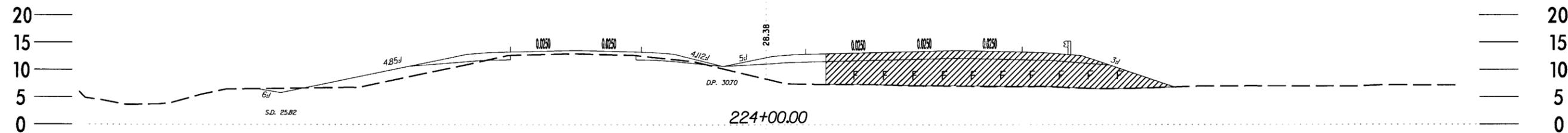
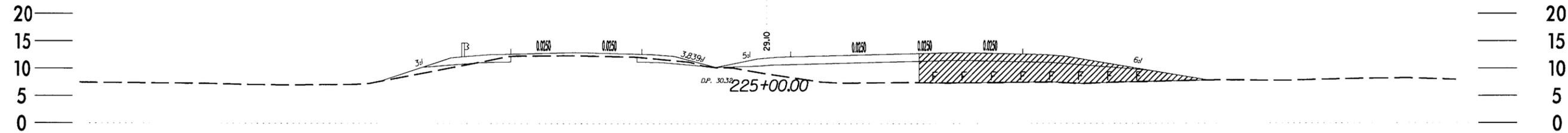
NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY
34440.11 (R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

PROJECT REFERENCE NO. <i>R-2510A</i>	SHEET NO. <i>SITE 15</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND

 DENOTES FILL IN WETLANDS

X-SECTION
SITE 15
STA 224+00 &
STA 225+00



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

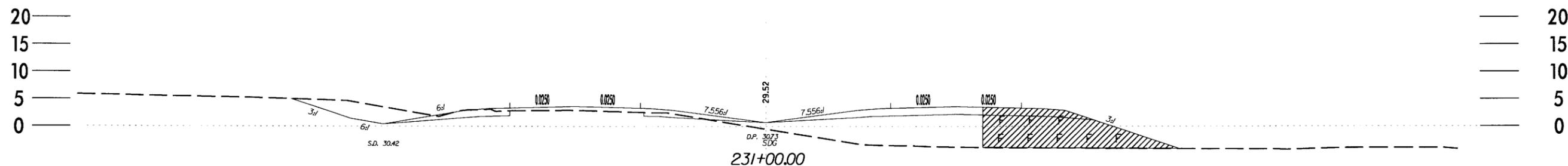
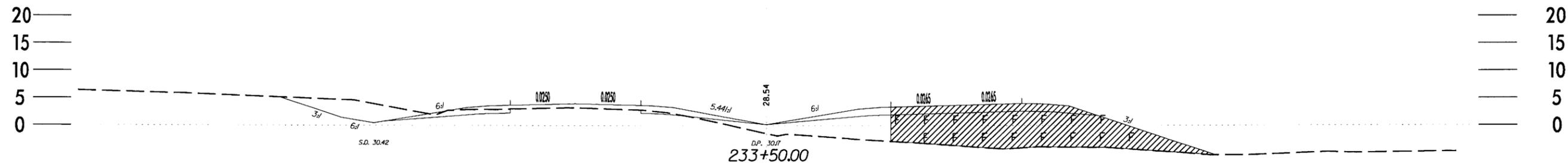
BEAUFORT COUNTY
34440.11 (R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

DATE: APR-05 SHEET **12** OF **14**

PROJECT REFERENCE NO. R-2510A	SHEET NO. SITE 16
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	



LEGEND

DENOTES FILL IN WETLANDS

X-SECTION
SITE 16
STA 231+00 &
STA 233+50



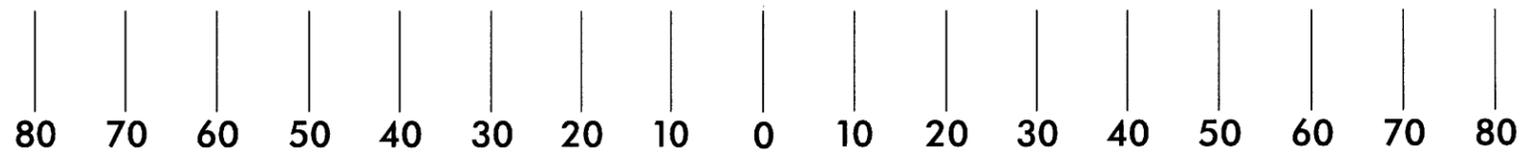
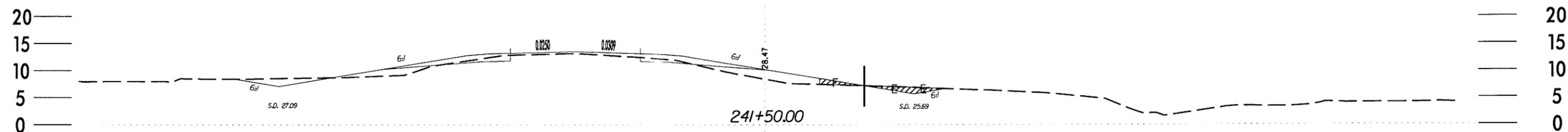
NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY
 34440.11(R-2510A)

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

HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'

PROJECT REFERENCE NO. R-2510A	SHEET NO. SITE 17
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND	
	DENOTES FILL IN WETLANDS
	DENOTES EXCAVATION IN WETLANDS

X-SECTION
SITE 17
STA 241 + 50



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

 BEAUFORT COUNTY
 34440.JJ (R-2510A)

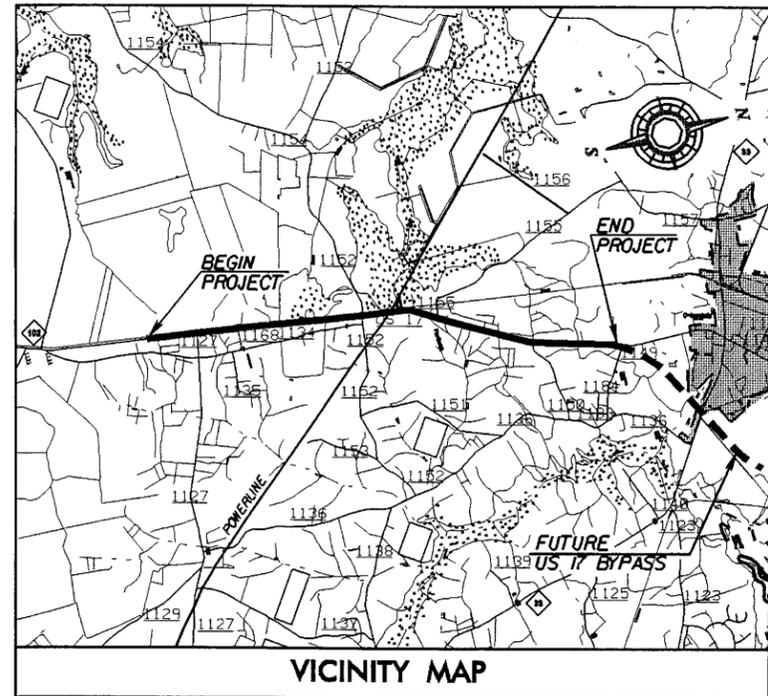
 US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
 TO SR 1149 (PRICE ROAD)

 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'

 DATE: APR-05 SHEET 14 OF 14

09/08/99

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
BEAUFORT COUNTY

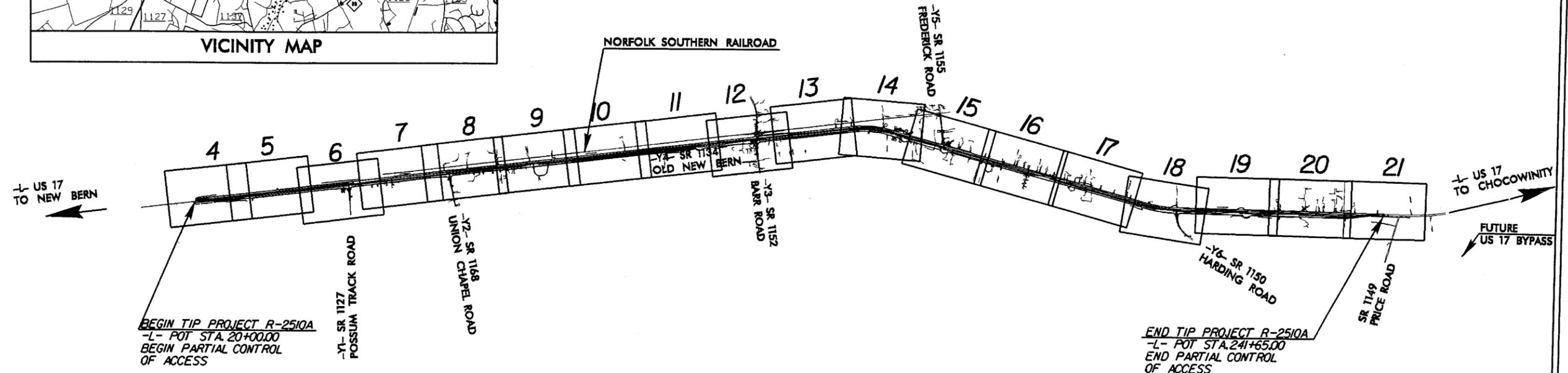
LOCATION: US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
TO SR 1149 (PRICE ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND CULVERT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2510A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34440.1.1	MAF-75-3(26)	PE	

Utility Plans

NAD 8395 NC GRID



BEGIN TIP PROJECT R-2510A
-L- POT STA. 20+00.00
BEGIN PARTIAL CONTROL OF ACCESS

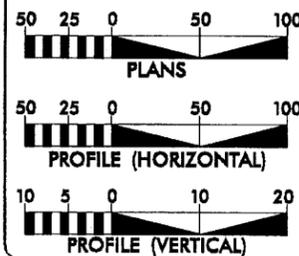
END TIP PROJECT R-2510A
-L- POT STA. 24+65.00
END PARTIAL CONTROL OF ACCESS

NOTES: THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III OR TO R/W WHEN INDICATED ON PLANS.

R-2510A

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2006 = 10200 VPD
ADT 2026 = 17000 VPD
DHV = 12 %
D = 60 %
T = 12 % *
V = 60 MPH
* TTST 7% DUAL 5%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2510A = 4.198 Mi
TOTAL LENGTH OF TIP PROJECT R-2510A = 4.198 Mi

Prepared In The Office Of:

Carter Burgess

Consultants in Planning, Engineering, Architecture,
Construction Management and Related Services
528 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: R. DONALD HURLBUT, PE
ROADWAY GROUP MANAGER

LETTING DATE: MARCH 18, 2005
CARL L. BUSH III, PE
PROJECT DESIGN ENGINEER

DECEMBER 19, 2006

NCDOT CONTACT: CATHY S. HOUSER, PE
ROADWAY DESIGN PROJECT ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SIGNATURE: P.E.
ROADWAY DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

STATE DESIGN ENGINEER P.E.
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR DATE

04-AUG-2005 15:00 P:\Projects\N-2510a-rdy-tsh.dgn
L:\N\Projects\N-2510a-rdy-tsh.dgn

5/14/99

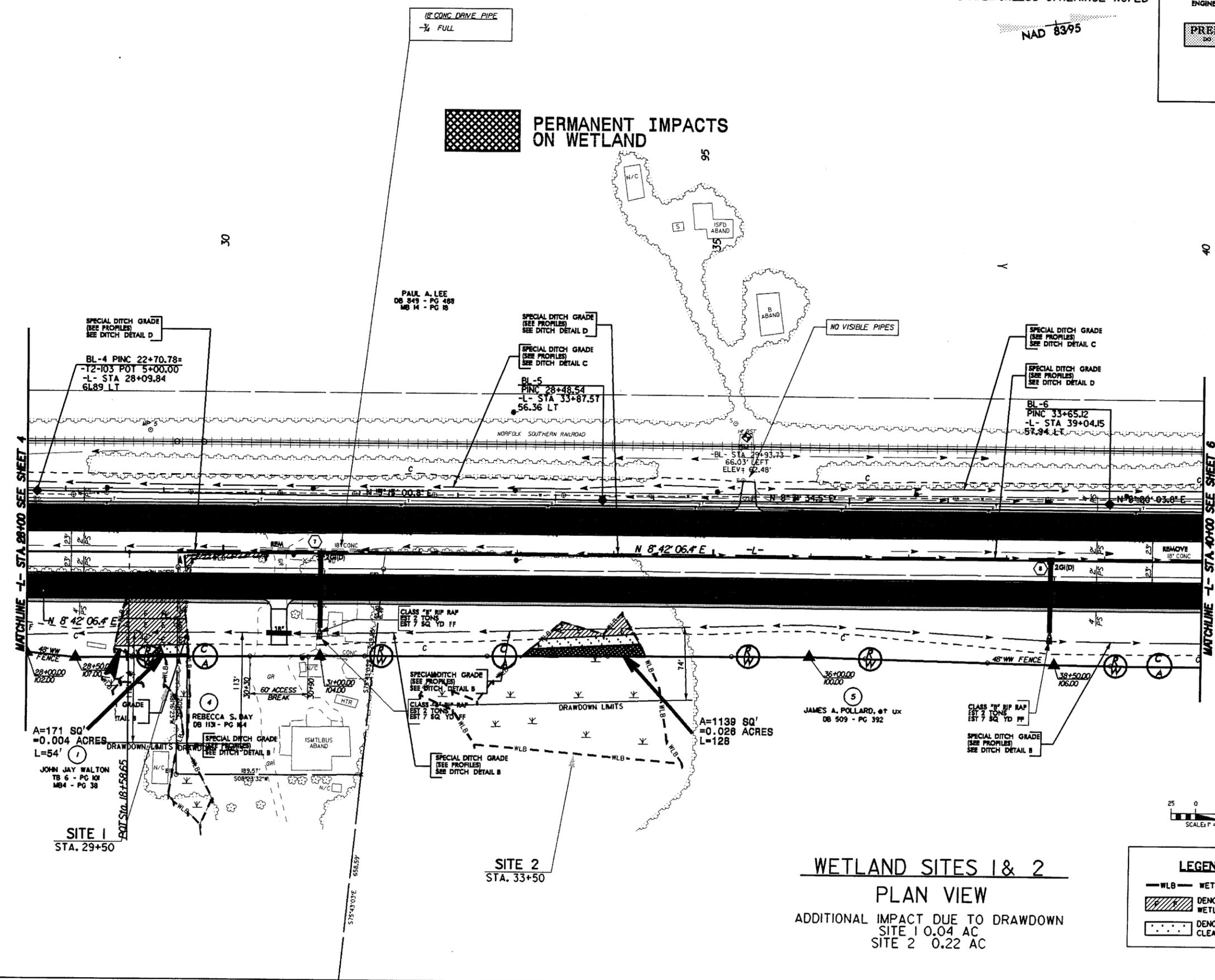
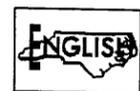
NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 23 FOR -L- PROFILE SEE SHEET 2C FOR DITCH DETAILS ALL DRIVEWAYS ARE 10' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

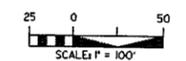
PROJECT REFERENCE NO. R-2510A	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

NAD 8395

 PERMANENT IMPACTS ON WETLAND



WETLAND SITES 1 & 2
PLAN VIEW
 ADDITIONAL IMPACT DUE TO DRAWDOWN
 SITE 1 0.04 AC
 SITE 2 0.22 AC



LEGEND	
	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

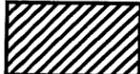
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5/14/99

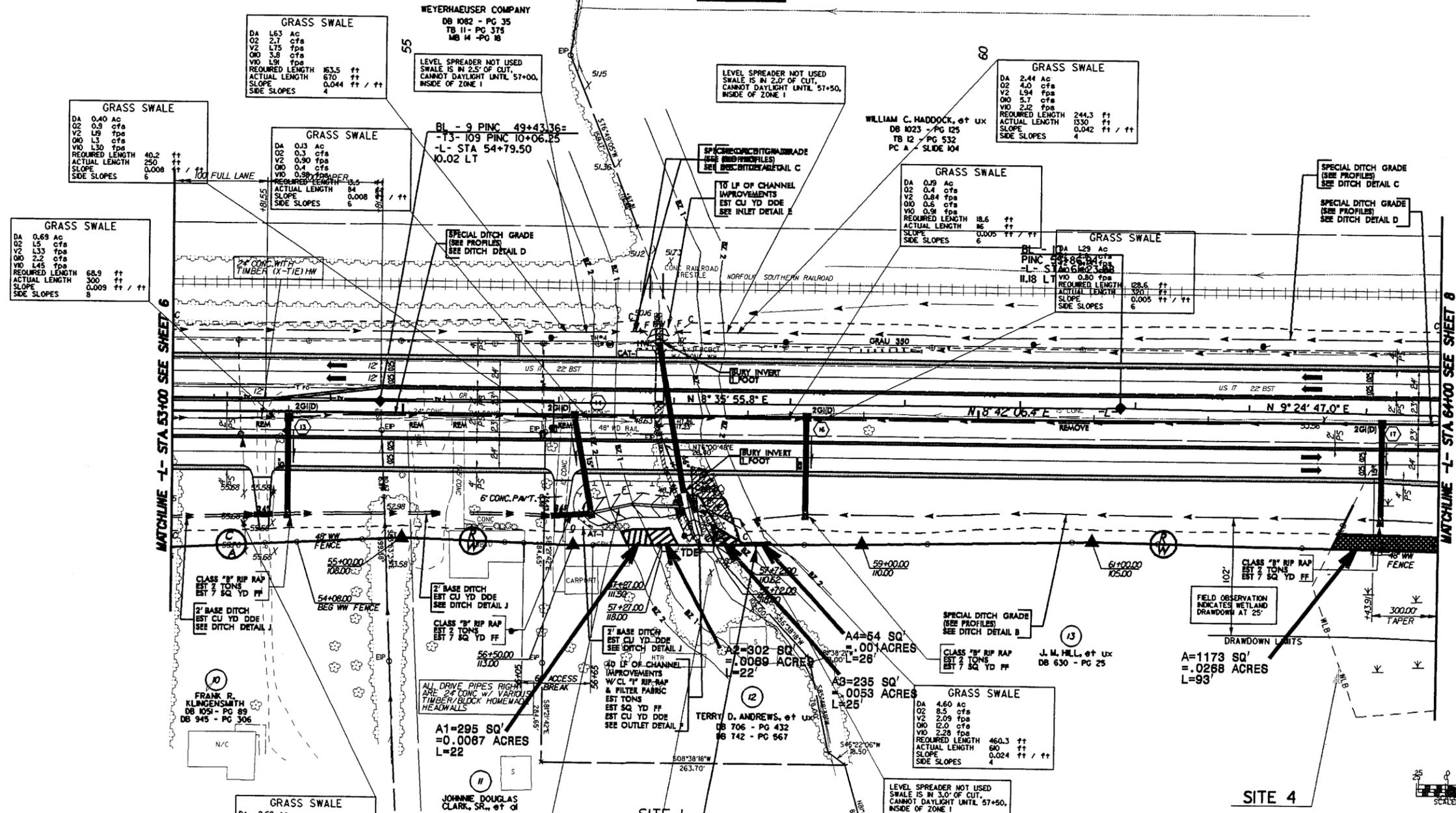
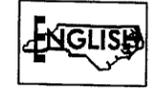
NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 28 FOR L- PROFILE SEE SHEET 2C FOR DITCH DETAILS ALL DRIVEWAYS ARE 18" WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO. R-2510A		SHEET NO. 77	
RWY SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>			

-  PERMANENT IMPACTS ZONE 1
-  PERMANENT IMPACTS ZONE 2
-  PERMANENT IMPACTS ON WETLAND

NAD 8395



WETLANDS SITES 3 & 4

PLAN VIEW

ADDITIONAL IMPACT DUE TO DRAWDOWN SITE 4 0.03 AC

LEGEND	
	RIP-RAP BUFFER ZONE
	WETLAND
	MITIGABLE IMPACTS ZONE
	CLEARING
	MITIGABLE IMPACTS ZONE 2

04-AMC-XUVS 1456
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K:\m\at\2510a07_wt.dgn

5/14/99

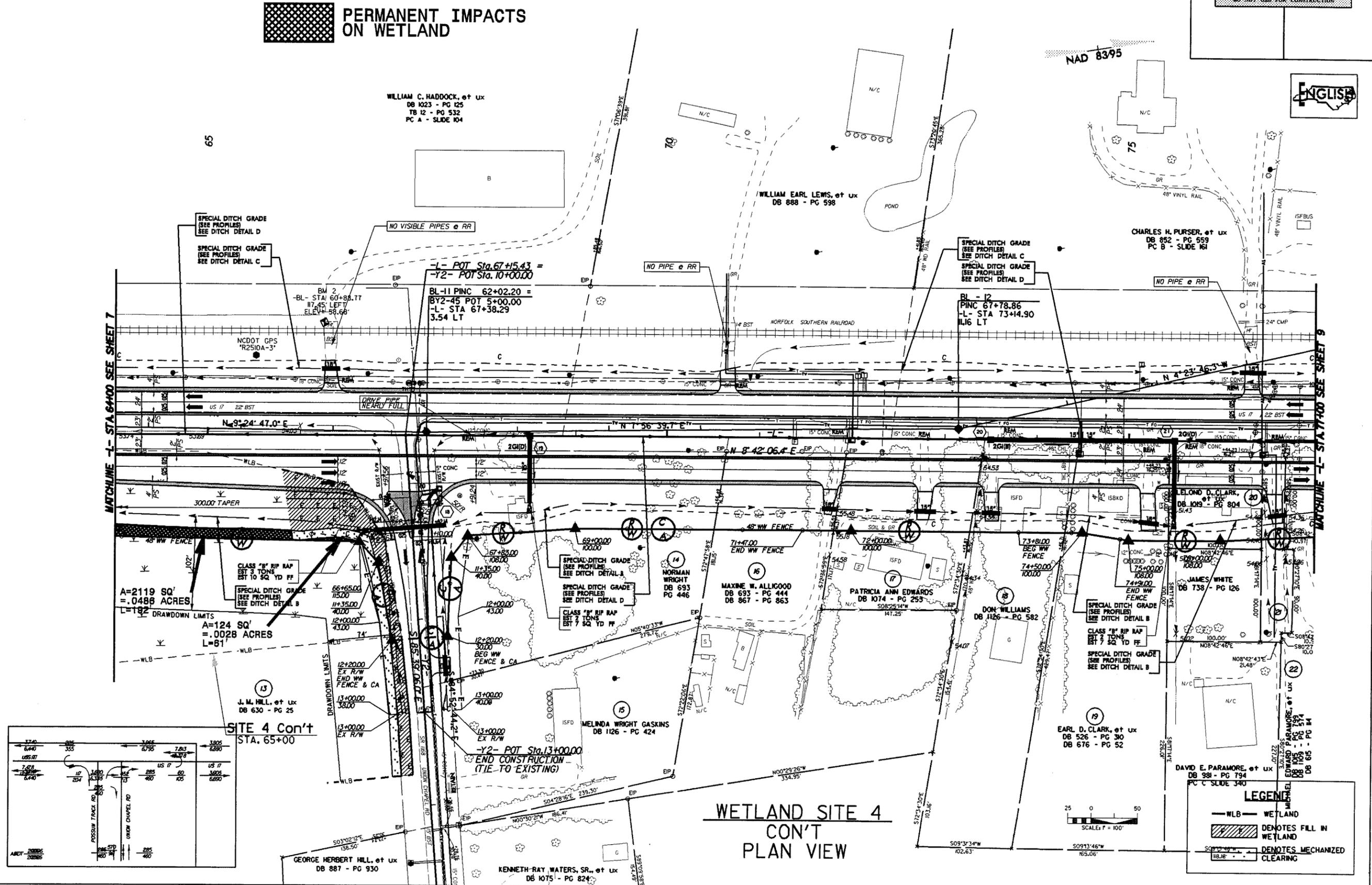
NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 32 FOR -Y2- PROFILE
SEE SHEET 2C FOR DITCH DETAILS
SEE SHEET 2D FOR INTERSECTION DETAILS
ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO. R-2510A		SHEET NO. 8	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



PERMANENT IMPACTS ON WETLAND



**WETLAND SITE 4
CON'T
PLAN VIEW**

LEGEND

	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

04-AUG-2005 14:56 I:\es\rd\at\2510a\we\land\2510a08_w.dgn

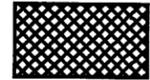
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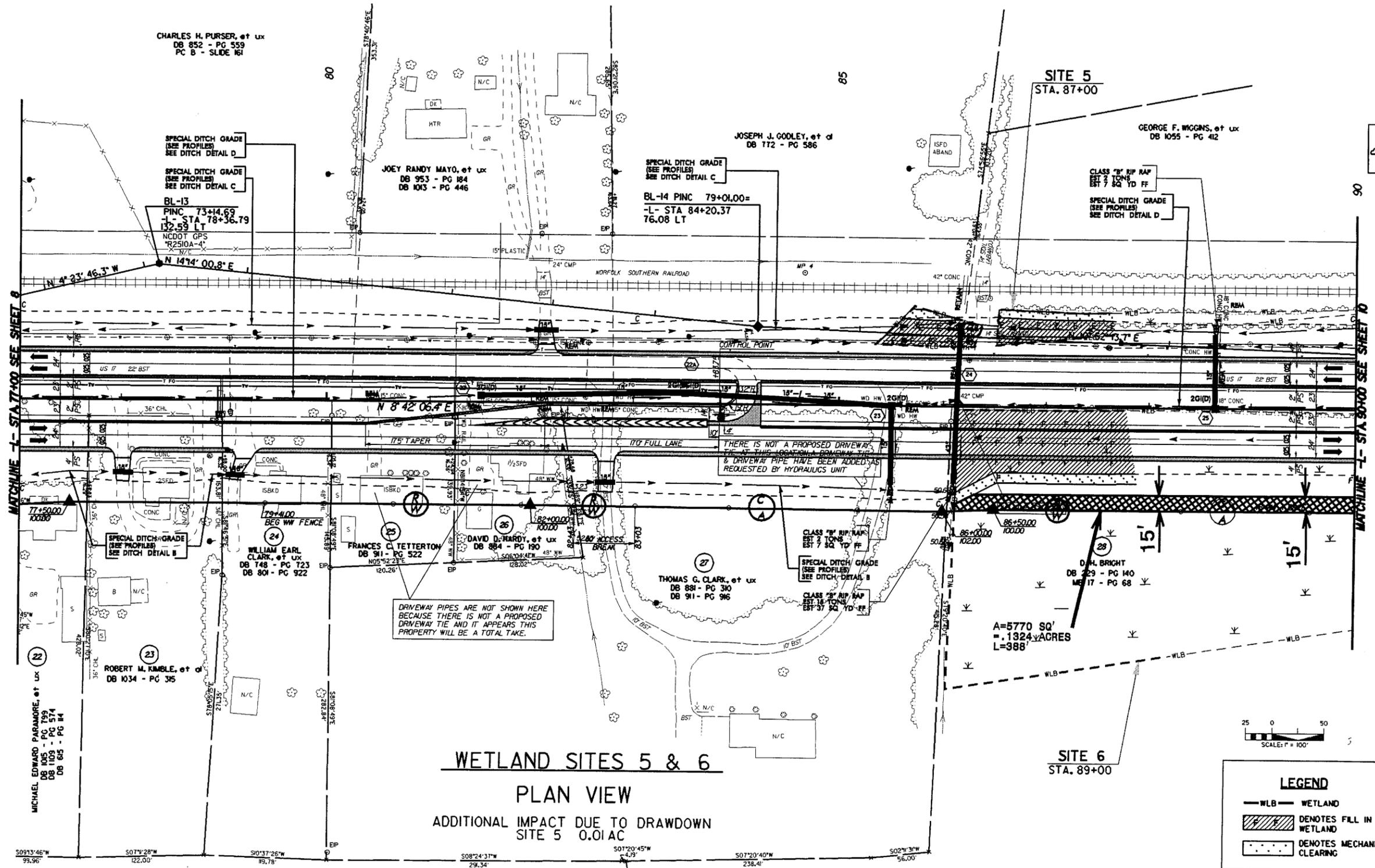
NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 26 FOR -L- PROFILE SEE SHEET 20 FOR DITCH DETAILS ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO. R-2510A	SHEET NO. 9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

NAD 8395

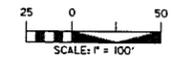
 PERMANENT IMPACTS ON WETLAND



WETLAND SITES 5 & 6

PLAN VIEW

ADDITIONAL IMPACT DUE TO DRAWDOWN SITE 5 0.01AC



 W-L-B	WETLAND
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING



D:\AUG-2005 14:57:21 2510a_wetland\2510a09_w.dgn
11/11/05 11:51:51

5/14/99

NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED

SEE SHEET 26 FOR -L- PROFILE SEE SHEET 2C FOR DITCH DETAILS ALL DRIVEWAYS ARE 10' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO. R-2510A	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

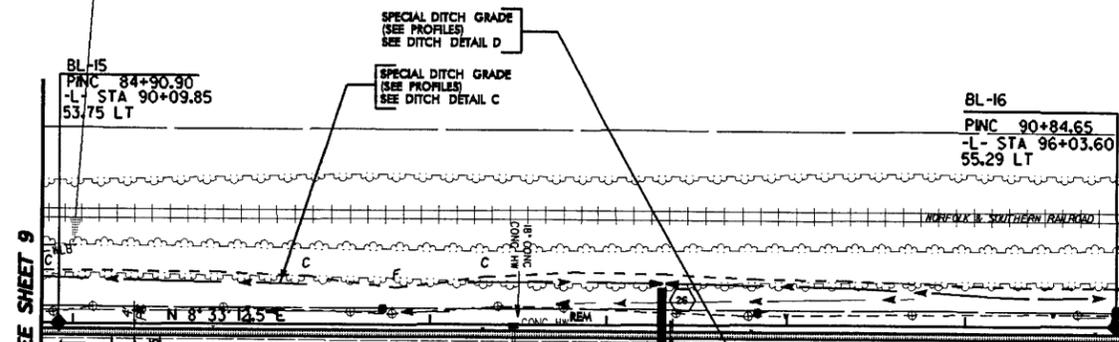
Carter Burgess
 Consultants in Planning, Engineering, Architecture,
 Construction Management and Related Services
 581 Glenwood Avenue, Suite 300
 Raleigh, North Carolina 27602

KO & ASSOCIATES, P.C.
 Consulting Engineers
 1011 SCHAUH DR. SUITE #202
 RALEIGH, N.C. 27606



PERMANENT IMPACTS ON WETLAND

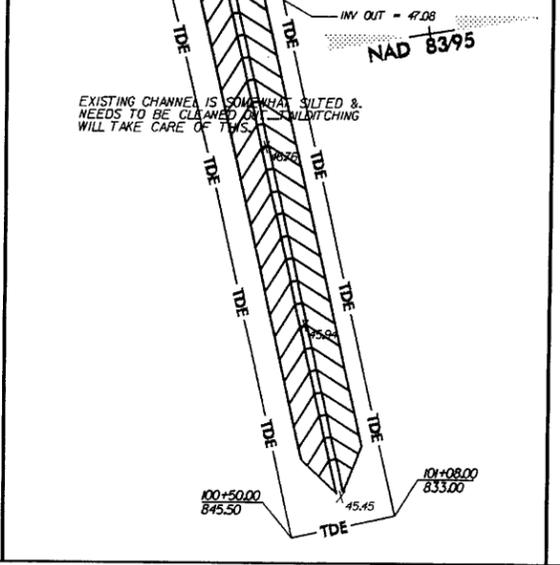
SITE 5
CON'T



MATCHLINE -L- STA 90+00 SEE SHEET 9

MATCHLINE -L- STA 103+00 SEE SHEET 11

MATCHLINE -L- OFFSET 4000' SEE SHEET THIS SHEET

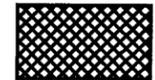


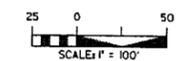
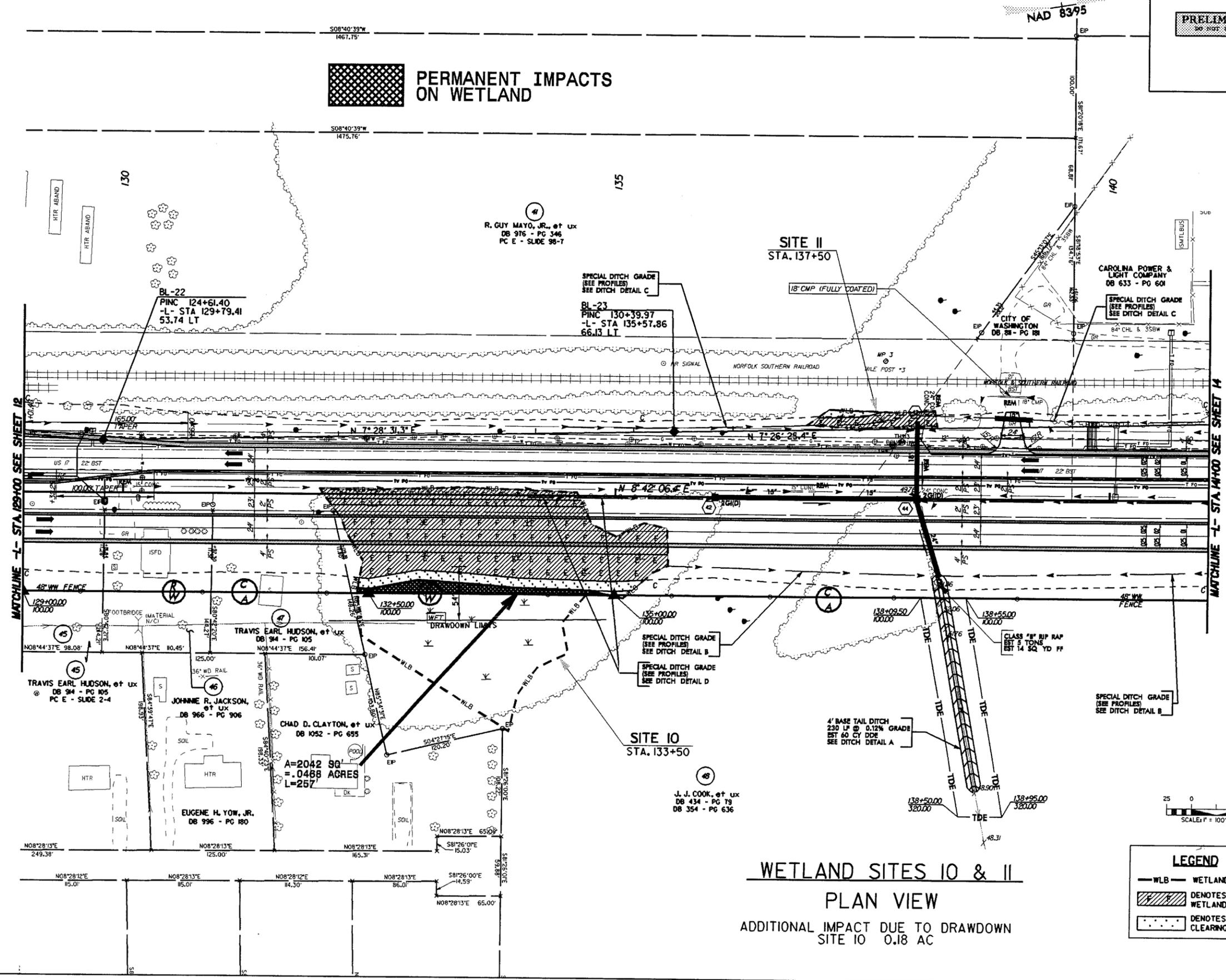
5/14/99

NOTE: ALL DRIVEWAY CONNECTIONS ARE 6' ABC UNLESS OTHERWISE NOTED

SEE SHEET 28 FOR -L- PROFILE SEE SHEET 20 FOR DITCH DETAILS ALL DRIVEWAYS ARE 10' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO. R-2510A	SHEET NO. 13
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

 PERMANENT IMPACTS ON WETLAND



LEGEND

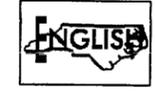
	WLB - WETLAND
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

WETLAND SITES 10 & 11
PLAN VIEW
 ADDITIONAL IMPACT DUE TO DRAWDOWN
 SITE 10 0.18 AC

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1-27-03 DRAINAGE REVISION STRUCTURE 7476 15/14/93

PROJECT REFERENCE NO. R-2510A	SHEET NO. 20
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



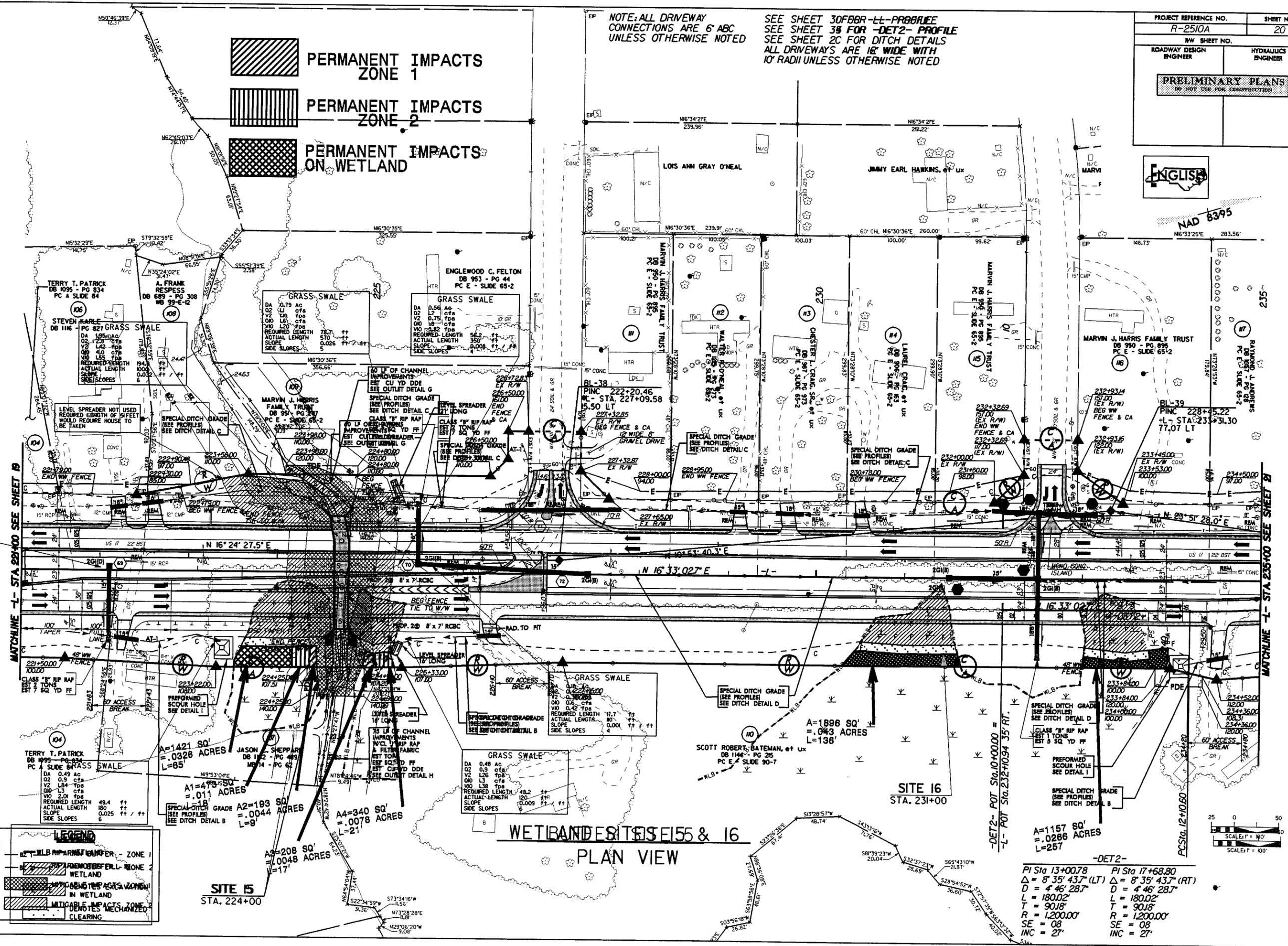
NAD 8395

NOTE: ALL DRIVEWAY CONNECTIONS ARE 6" ABC UNLESS OTHERWISE NOTED
SEE SHEET 30FBBR-LL-PROBRIE
SEE SHEET 38 FOR -DET2- PROFILE
SEE SHEET 2C FOR DITCH DETAILS
ALL DRIVEWAYS ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

PERMANENT IMPACTS ZONE 1

PERMANENT IMPACTS ZONE 2

PERMANENT IMPACTS ON WETLAND



MATCHLINE -L- STA 28+00 SEE SHEET 19

MATCHLINE -L- STA 235+00 SEE SHEET 9

WETLAND SITES 15 & 16
PLAN VIEW

LEGEND

- WLB RIP RAP BUFFER - ZONE 1
- PERMANENT BUFFER - ZONE 2 WETLAND
- PERMANENT BUFFER AREAS ZONE 1 IN WETLAND
- MULTIPLE IMPACTS ZONE 2 CLEARING

SITE 5
STA. 224+00

A1=1421 SQ' = .0328 ACRES
L=85'

A2=193 SQ' = .0044 ACRES
L=9'

A3=208 SQ' = .0048 ACRES
L=17'

A4=340 SQ' = .0078 ACRES
L=21'

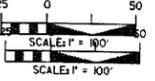
A5=479 SQ' = .011 ACRES
L=18'

SITE 16
STA. 231+00

A=1896 SQ' = .043 ACRES
L=138'

-DET2-

PI Sta 13+00.78	PI Sta 17+68.80
Δ = 8' 35" 43.7" (LT)	Δ = 8' 35" 43.7" (RT)
D = 4' 46" 28.7"	D = 4' 46" 28.7"
L = 180.02'	L = 180.02'
T = 90.18'	T = 90.18'
R = 1,200.00'	R = 1,200.00'
SE = 08	SE = 08
INC = 27'	INC = 27'

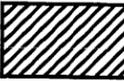
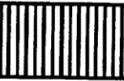


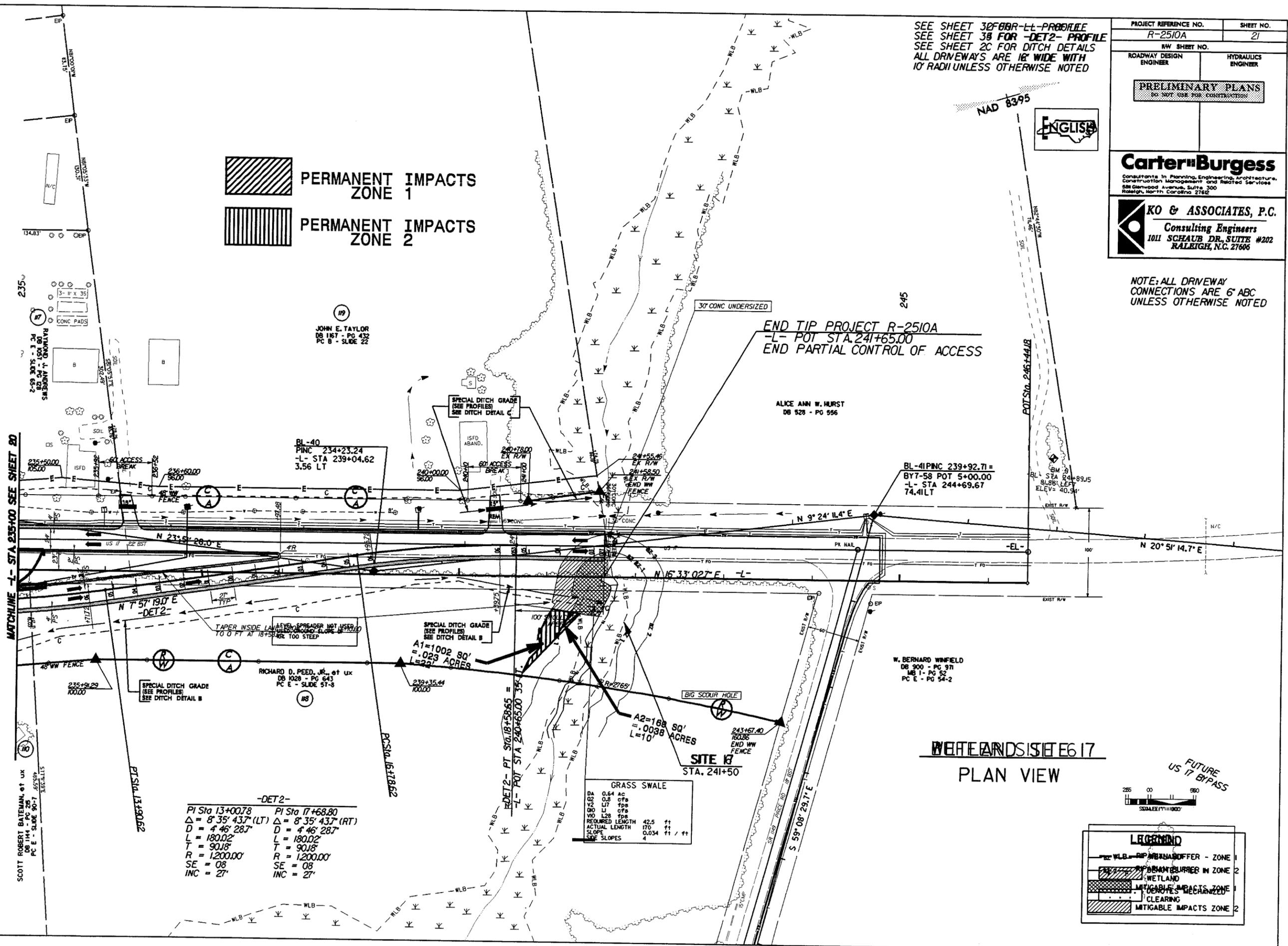
utilities\vdh\d\2510a_wetland\2510a20_w.dgn

SEE SHEET 30260R-LL-PROFILE
 SEE SHEET 38 FOR -DET2- PROFILE
 SEE SHEET 2C FOR DITCH DETAILS
 ALL DRIVEWAYS ARE 16' WIDE WITH
 10' RADII UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO. R-2510A	SHEET NO. 21
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
Carter Burgess Consultants in Planning, Engineering, Architecture, Construction Management and Related Services 818 Glenwood Avenue, Suite 300 Raleigh, North Carolina 27602	
KO & ASSOCIATES, P.C. Consulting Engineers 1011 SCHAUB DR., SUITE #202 RALEIGH, N.C. 27606	

NOTE: ALL DRIVEWAY
 CONNECTIONS ARE 6' ABC
 UNLESS OTHERWISE NOTED

 PERMANENT IMPACTS
 ZONE 1
 PERMANENT IMPACTS
 ZONE 2



-DET2-

PI Sta 13+00.78	PI Sta 17+68.80
$\Delta = 8^{\circ} 35' 43.7" (LT)$	$\Delta = 8^{\circ} 35' 43.7" (RT)$
$D = 4^{\circ} 46' 28.7"$	$D = 4^{\circ} 46' 28.7"$
$L = 180.02'$	$L = 180.02'$
$T = 90.18'$	$T = 90.18'$
$R = 1200.00'$	$R = 1200.00'$
$SE = 08$	$SE = 08$
$INC = 27'$	$INC = 27'$

GRASS SWALE

DA	0.64 AC	
Q2	0.8 CFS	
V2	L7 fps	
Q0	L1 CFS	
V10	L28 fps	
REQUIRED LENGTH	42.5	++
ACTUAL LENGTH	170	++
SLOPE	0.034	+/++
SIDE SLOPES	4	

WETLANDS SITE E617
 PLAN VIEW



LEGEND

-  RIPARIAN BUFFER - ZONE 1
-  RIPARIAN BUFFER IN ZONE 2
-  WETLAND
-  MITIGABLE IMPACTS ZONE 1
-  DENOTES MECHANIZED CLEARING
-  MITIGABLE IMPACTS ZONE 2

5/14/99
 04-AUG-2005 15:00
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