



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY PERDUE  
GOVERNOR

EUGENE CONTI  
SECRETARY

October 1, 2012

MEMORANDUM TO: Mr. Jerry Jennings, PE  
Division 1 Engineer

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

SUBJECT: Hertford and Gates Counties, Widening of US 13-158 from US 158/NC 45  
near Winton to US 158 at Tarheel; WBS Element 35488.1.1.;  
**TIP R-2507A**

*E. L. Fush*

Attached are the U.S. Army Corps of Engineers Section 404 Individual Permit, the NC Division of Water Quality Section 401 Water Quality Certification, and the NC Division of Coastal Management CAMA permit.

The US Coast Guard permit is pending. However, the USCG has approved for *non-bridge* construction to begin outside of the Chowan River, prior to permit issuance. The USCG permit will be distributed under separate cover as soon as it is received.

A copy of this permit package will be posted on the NCDOT website at:  
<http://www.ncdot.gov/doh/preconstruct/pe/neu/permit.html>

Cc:

Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Jay Bennett, P.E., Roadway Design Unit  
Mr. Dewayne Sykes, P.E. Utilities Unit  
Mr. Art McMillan, P.E., Hydraulics Unit  
Mr. Greg Perfetti, P.E., Structure Design Unit  
Mr. Ron Hancock, P.E., State Roadway Construction Engineer  
Mr. Mike Robinson, P.E., State Bridge Construction Engineer  
Mr. Rob Hanson, P.E., PDEA Eastern Section Head  
Mr. Rodger Rochelle, P.E., Transportation Program Management  
Mr. Clay Willis, Division Environmental Officer  
Mr. Clarence Coleman, P.E., FHWA  
Ms. Beth Harmon, EEP  
Mr. Phillip Ayscue, Office of Inspector General



# PROJECT COMMITMENTS

TIP Project R-2507A  
Widening of US 13-158 from  
US 158/NC 45 near Winton to US 158 at Tarheel  
Hertford and Gates Counties  
State Project 35488.1.1

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### **Hydraulics Unit**

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine whether the Memorandum of Agreement between NCDOT and the FMP is applicable or if approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR) will be required for this project.

### **Division One Construction**

No in-water work will be performed in the Chowan River between February 15<sup>th</sup> and June 30<sup>th</sup>, due to the presence of anadromous fish.

NCDOT's Stream Crossing Guidelines for Anadromous Fish Passage will apply to the Chowan River crossing.

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Temporary barrier and erosion control fencing, signage and any other pertinent means will be used within the boundaries of the Story's Crossroads Historic District in order to protect historic district resources during construction.

### **Roadway Design Unit/Structure Design Unit/Transportation Program Management Unit**

Fifty-four inch rails will be provided on the outside of proposed bridges in order to accommodate bicycles. The rails on the east side of the existing bridge over the Chowan River will be retrofitted to accommodate bicycles. An eight-foot outside shoulder will be provided on the proposed new bridges in order to accommodate bicycles. A six-foot paved outside shoulder is proposed for the portion of US 13-158 signed as NC Bike Routes 3A and 4 (US 158 near Winton to NC 137).



### **Roadway Design Unit/Transportation Program Management Unit**

The width of the proposed right-of-way will be reduced from 200' to 150' and expressway gutters will be used on both sides of the roadway in the vicinity of the Story's Crossroads Historic District.

All construction easements within the Story's Crossroads Historic District will be temporary.

Within the Story's Crossroads Historic District, the Transportation Program Management Unit will consult with NCDOT Historic Architecture, SHPO, and the property owners to determine the location and appearance of above-ground features like fire hydrants and utilities, as well as the relocation and realignment, where necessary, of driveways.

Steeper side slopes (3:1) will be used in jurisdictional areas.

The median width in Section 1 will be reduced from 46' to 30' at the Chowan River structure.

### **Utilities Unit/Division One Construction**

Fire hydrants will be added on the opposite side of US 13-158 from existing fire hydrants as part of this project. These hydrants are being added in order to prevent the fire department from having to cross the median to fill water trucks.

### **Human Environment Unit**

Prior to the initiation of construction, NCDOT shall record the Story's Crossroads Historic District and its surroundings in accordance with the "Historic Structures and Landscape Recordation Plan" prepared for the included with the Memorandum of Agreement (MOA) prepared regarding the historic district.

Copies of the documentation will be deposited with the SHPO, NCDOT Historic Architecture Group and the property owner prior to the letting of the contract for the project or no later than one year of the execution of the MOA.

NCDOT Historic Architecture shall provide fencing design assistance. NCDOT Historic Architecture and SHPO shall review and comment on the resultant plan.

### **Roadside Environmental Unit**

A landscape plan for those parts of the Story's Crossroads Historic District directly impacted by the project will be developed and implemented, in consultation with the SHPO and the property owners in the historic district. The plan will utilize materials from native plant communities and replace existing fencing as necessary to reestablish a natural appearance and composition, as well as help screen properties from the widened roadway.



Existing features within the historic district will be inventoried and the property owners will be coordinated with during development of the plan. NCDOT Historic Architecture and SHPO will review and comment on the landscape plan. The landscape mitigation plan will be incorporated into the final design plan.

## **COMMITMENTS FROM PERMITTING**

### **Division One Construction**

The permittee understands and agrees that, if future operations by the United States require removal, relocation, or alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the U.S. Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal, relocation, or alteration. The permittee shall notify NOAA/NATIONAL OCEAN SERVICE Chief Source Data Unit N CS261, 1315 E West HWY-RM 7316, Silver Spring, MD 20901-3282 at least two weeks prior to beginning work and upon completion of work.

If submerged cultural resources are encountered during the operation, the Wilmington District U.S. Army Corps of Engineers, District Engineer will be immediately notified so that coordination can be initiated with the Underwater Archeology Unit (UAU) of the Department of Cultural Resources. In emergency situations, the permittee should immediately contact Mr. Richard Lawrence at 910-458-9042, Fort Fisher, so that a full assessment of the artifacts can be made.

Unless specifically altered [by the CAMA Major Permit], any mitigative measures or environmental commitments specifically made by the permittee in the CAMA permit application and/or Finding of No Significant Impact (FONSI) document dated 4/27/11 shall be implemented, regardless of whether or not such commitments are addressed by individual conditions of this permit.

### **Division One Construction/Roadside Environmental Unit**

Turbidity curtains shall be used to isolate all in-water work areas, including pile installation, from the adjacent waters of the Chowan River. The turbidity curtains shall be of sufficient length and effectiveness to prevent a visible increase in the amount of suspended sediments in adjacent waters. The turbidity curtains shall encircle the immediate work area, but, shall not impede navigation. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and shall only be removed when turbidity within the curtains reaches ambient levels.



At the temporary crossing of Buckhorn Creek (Site 23) all pipes, rock, fill material, etc. shall be placed on barrier fabric placed in the natural channel profile of the stream. The fabric shall be installed in such a way that, as best as practicable, no temporary fill material will contact the natural stream channel. No culverts associated with the temporary crossing shall be buried. When the culvert pipes and other fill material used for the temporary crossing are removed, all pipes, rock, fill dirt, etc. used as temporary fill shall be completely removed and the stream channel shall be restored to the original, natural profile. Any modifications to the stream channel shall be kept to a minimum.

### **Natural Environment Section**

As of September 10, 2012, the U.S. Coast Guard permit for construction of the bridge over the Chowan River has not been obtained. The permit application is expected to go off public notice on September 20, 2012. When the permit is received, it will be distributed and the greensheet revised, if necessary.

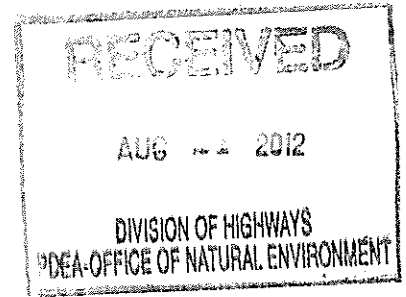




REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
69 DARLINGTON AVENUE  
WILMINGTON, NORTH CAROLINA 28403-1343

August 17, 2012



Regulatory Division

Action ID: SAW-2006-101391

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

Dear Dr. Thorpe:

In accordance with your written request of March 23, 2012, and the ensuing administrative record, enclosed is a copy of a Department of the Army (DA) Permit to permanently impact 20.22 acres of wetlands and 175 linear feet of stream channel associated with TIP No. R-2507A, the widening of US Highway 158 from the intersection of US Highway 13/158 just west of Winton to the split of US Highway 13/158 in Tarheel in Hertford and Gates Counties, North Carolina.

Any deviation in the authorized work will likely require modification of this permit. If a change in the authorized work is necessary, you should promptly submit revised plans to the Corps showing the proposed changes. You may not undertake the proposed changes until the Corps notifies you that your permit has been modified.

Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant general conditions require that:

- a. You must complete construction before December 31, 2017.
- b. You must notify this office in advance as to when you intend to commence and complete work.
- c. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

You should address all questions regarding this authorization to Mr. Bill Biddlecome in the Washington Regulatory Field Office, telephone number (910) 251-4558.



Thank you in advance for completing our Customer Survey Form. This can be accomplished by visiting our web-site at <http://per2.nwp.usace.army.mil.survey.html> and completing the survey on-line. We value your comments and appreciate your taking the time to complete a survey each time you interact with our office.

Sincerely,



For Steven A. Baker  
Colonel, U. S. Army  
District Commander

Enclosures

Copies Furnished (with enclosures):

Chief, Source Data Unit  
NOAA/National Ocean Service  
1315 East-west Hwy., Rm 7316  
Silver Spring, MC 20910-3282

Copies Furnished with special conditions  
and plans:

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

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

Ms. Jennifer Derby, Chief  
Wetlands Protection Section – Region IV  
Water Management Division  
U. S. Environmental Protection Agency  
61 Forsyth Street  
Atlanta, Georgia 30303

Mr. Jeffrey Garnett  
Wetlands and Marine Regulatory Section  
Water Protection Division - Region IV  
U. S. Environmental Protection Agency  
61 Forsyth St. SW  
Atlanta, GA 30303-8931

Mr. Doug Huggett  
Division of Coastal Management  
N.C. Department of Environment  
and Natural Resources  
400 Commerce Avenue  
Morehead City, North Carolina 28557

Mr. Pace Wilber  
National Marine Fisheries Service  
219 Fort Johnson Road  
Charleston, South Carolina 29412-9110



## DEPARTMENT OF THE ARMY PERMIT

Permittee      **North Carolina Department of Transportation, Dr. Gregory Thorpe.**

Permit No.      **SAW 2006-10391**

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: The proposed TIP project R-2507A involves the widening of an existing two lane road facility to a multi-lane facility for approximately 7.7 miles. The project would permanently impact 20.22 acres of wetlands and 175 linear feet of stream. The project would temporarily impact 1.55 acres of wetlands (temporary fill of 0.04 acres and 1.51 acres of hand clearing for utility relocations) and 103 linear feet of stream.

Project Location: This project is located along US Highway 158 from the intersection of US Highway 13/158 just west of Winton to the US Highway 13/158 split in Tarheel, adjacent to jurisdictional wetlands connected to the Chowan River, Buckhorn Creek, and two unnamed tributaries that drain to Jady Branch and Folly Branch in Hertford and Gates Counties, North Carolina.

### Permit Conditions:

#### General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2017**. 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.

E.L. Luske for Gregory J. Thape, PhD Aug 16, 2012  
(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.

for [Signature] 17 Aug 2012  
(DISTRICT ENGINEER) STEVEN A. BAKER, 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. SAW- 2006-10391): NCDOT**

**COMPLIANCE WITH PLANS**

**Work Limits**

- a) All work authorized by this permit must be performed in strict compliance with the attached plans, which are a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.
- b) 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. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.
- c) To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, except as authorized by this permit, the permittee shall require its contractors and/or agents to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. The permittee shall provide the USACE with appropriate maps indicating the locations of proposed borrow or waste sites as soon as the permittee has that information. The permittee will coordinate with the USACE before approving any borrow or waste sites that are within 400 feet of any streams or wetlands to ensure that all such areas comply with the preceding condition (b) of this permit. 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.
- d) 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 waters or wetlands or to reduce the reach of waters or wetlands.
- e) The permittee shall schedule and attend a preconstruction meeting between its representatives, the contractors representatives, and the Corps of Engineers, Washington 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 the terms and conditions contained with this Department of Army Permit. The permittee shall provide the USACE, Washington Field Office, NCDOT Project Manager, with a copy of the final permit 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 frame when the USACE, NCDCM, and NCDWQ Project Managers can attend. The permittee shall invite the Corps, NCDCM, 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 schedules and participate in the required meeting.

f) To avoid adverse impacts to spawning populations of fish species at this project site, no in-water work will be conducted between February 15 and June 30 in Buckhorn Creek and the Chowan River. For the purpose of this moratorium, in water is defined as those waters within Buckhorn Creek and the Chowan River and its adjacent wetlands that during periods of inundation have an active connection to these tributaries. The permittee will follow NCDOT adopted anadromous fish stream crossing guidelines.

g) Unless otherwise requested in the applicant's application and depicted on the approved work plans, culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain existing channel slope. The bottom of the culvert must be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert.

#### **Related Laws**

h) The North Carolina Division of Water Quality has issued a conditioned Water Quality Certification for your project. The conditions of that certification are hereby incorporated as special conditions of this permit. For your convenience, a copy of the certification is attached as Exhibit A. These referenced conditions are hereby incorporated as special conditions of this permit.

i) 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. 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, Ext. 526 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

#### **Project Maintenance**

j) The permittee shall advise the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

k) 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.



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

m) The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. 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).

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

o) 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 non-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

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

q) The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

### **Enforcement**

r) Violations of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District U.S. Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.

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

### **Mitigation**

t) In order to compensate for impacts to 163 linear feet of stream / 20.22 acres of wetlands the permittee shall make payment to the North Carolina Ecosystem Enhancement Program (NCEEP) in the amount determined by the NCEEP, sufficient to perform the restoration or restoration



equivalent of 326 linear feet of warm water stream / 29.08 acres of riparian riverine / 11.36 acres non-riparian wetlands in the Chowan River Basin, Cataloging Unit 0301203. Construction within jurisdictional areas on the property may begin upon permit issuance, however within 30 days of permit issuance, NCDOT shall provide written confirmation to the Corps that NCEEP agrees to accept responsibility for the mitigation work required, in compliance with the NCEEP In-Lieu Fee Instrument, approved by the United States Army Corps of Engineers, Wilmington District on July, 28, 2010. Until the Corps receives this confirmation letter from NCEEP, NCDOT remains responsible for this mitigation requirement. If the Corps has not received a confirmation from NCEEP within 150 days of the date of this verification, NCDOT shall provide plans to accomplish the required mitigation to the Corps of Engineers within 210 days of the date of this verification.

## **Section 10**

u) The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the waterway to its former conditions. If the permittee fails to comply with this direction, the Secretary or his representative may restore the waterway, by contract or otherwise, and recover the cost from the permittee.

v) The authorized structure and associated activity must not interfere with the public's right to free navigation on all navigable waters of the United States. No attempt will be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work for reason other than safety.

w) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the U.S. Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal, relocation, or alteration. The permittee shall notify NOAA/NATIONAL OCEAN SERVICE Chief Source Data Unit N CS261, 1315 E West HWY- RM 7316, Silver Spring, MD 20910-3282 at least two weeks prior to beginning work and upon completion of work.

x) The permittee must install and maintain, at his expense, any signal lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on authorized facilities. For further information, the permittee should contact the U.S. Coast Guard Marine Safety Office at (910) 772-2191.

y) If submerged cultural resources are encountered during the operation, the Wilmington District U.S. Army Corps of Engineer, District Engineer will be immediately notified so that coordination can be initiated with the Underwater Archeology Unit (UAU) of the Department of Cultural Resources. In emergency situations, the permittee should immediately contact Mr.

Richard Lawrence at 910-458-9042, Fort Fisher, so that a full assessment of the artifacts can be made.

z) NCDOT shall abide by all stipulations identified in the Memorandum of Agreement between the United States Army Corps of Engineers and the North Carolina State Historic Preservation Officer, executed 27 April, 2011, copy attached and identified as Exhibit B.



**MEMORANDUM OF AGREEMENT  
BETWEEN THE  
UNITED STATES ARMY CORPS OF ENGINEERS  
AND THE  
NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE  
FOR  
US 13/158 WIDENING  
BETWEEN US 158/NC 45 NEAR WINTON, HERTFORD  
COUNTY AND US 158 IN TARHEEL, GATES COUNTY  
HERTFORD AND GATES COUNTIES, NORTH CAROLINA  
TIP PROJECT NO. R-2507A  
STATE PROJECT NO. 35488.1.1**

RECEIVED

MAY 20 2011

REG. WILM. FLD. OFC.

**WHEREAS**, the United States Army Corps of Engineers (USACE) has determined that the widening of US 13/158 between US 158/NC 45 near Winton in Hertford County and US 158 in Tarheel in Gates County (the Undertaking) will have an adverse effect upon the Story's Crossroads Historic District, a property determined eligible for listing on the National Register of Historic Places (NRHP); and

**WHEREAS**, the Undertaking will compromise the historic integrity of the Story's Crossroads Historic District by 1) requiring the acquisition of right-of-way and construction easements from contributing properties; 2) necessitating the removal of planted tree lines and other landscape features; and 3) intruding into the viewshed and introducing materials that do not harmonize with the rural landscape; and

**WHEREAS**, the USACE has consulted with the North Carolina State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

**WHEREAS**, the North Carolina Department of Transportation (NCDOT), Edward S. Story, Dorothy Lawrence Bauerle, Gates County Planning and Development Services, and the Albemarle Rural Planning Organization have participated in the consultation and been invited by USACE and the SHPO to concur with this Memorandum of Agreement (MOA); and

**WHEREAS**, the USACE has notified the Advisory Council on Historic Preservation (Council) of the adverse effect and the Council has declined to comment or participate in the consultation;

**NOW, THEREFORE**, USACE and the SHPO agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on the historic property.

## **STIPULATIONS**

The USACE shall ensure that the following measures are carried out:

**I. Photodocumentation of the Story's Crossroads Historic District**

Prior to the initiation of construction, NCDOT shall record the Story's Crossroads Historic District and its surroundings in accordance with the attached "Historic Structures and Landscape Recordation Plan" (Appendix A). NCDOT shall deposit copies of the documentation with the SHPO, NCDOT Historic Architecture Group, Edward S. Story, and Dorothy Lawrence Bauerle prior to the letting of the contract or no later than one (1) year of the execution of this MOA.

**II. Preservation and Restoration of Landscape Features**

NCDOT, in consultation with the SHPO, Edward S. Story and Dorothy Lawrence Bauerle, shall develop and implement a landscape plan for those parts of the Story's Crossroads Historic District directly impacted by the undertaking. The plan will utilize materials from native plant communities and replace existing fencing as necessary to reestablish a natural appearance and composition, as well as help screen properties from the proposed, widened roadway. NCDOT Roadside Environmental Unit shall inventory the existing features and coordinate with the property owners; NCDOT Historic Architecture shall provide fencing design assistance if necessary. NCDOT Historic Architecture and SHPO shall review and comment on the resultant plan. NCDOT shall employ temporary barrier and erosion control fencing, signage, and any other pertinent means to protecting historic district resources during construction. The landscape mitigation plan will be incorporated into the final design plan.



### **III. Refinement of Design**

NCDOT Roadway Design shall reduce the width of the proposed right-of-way from 200' to 150' in the vicinity of the historic district buildings and employ expressway gutters to minimize project impacts. All construction easements will be temporary. NCDOT Roadway Design will consult with NCDOT Historic Architecture, SHPO, and the property owners to determine the location and appearance of above-ground features like fire hydrants and utilities, as well as the relocation and realignment, where necessary, of driveway access. The placement and design of any controlled access fencing within the historic district also will be subject to consultation and review by NCDOT Historic Architecture, SHPO, and the property owners.

### **IV. Unanticipated Discovery**

In accordance with 36 CFR 800.11(a), if NCDOT identifies any additional cultural resource(s) during construction and determines it (them) to be eligible for the NRHP, all work will be halted within the limits of the NRHP-eligible resource(s) and the USACE and SHPO contacted. If after consultation with the Signatory and Concurring Party(ies) additional mitigation is determined necessary, the NCDOT, in consultation with the Signatory and Concurring Party(ies), will develop and implement appropriate protection/mitigation measures for the resource(s). Inadvertent or accidental discovery of human remains will be handled in accordance with North Carolina General Statutes 65 and 70.

### **V. Dispute Resolution**

Should any of the Signatory or Concurring Party(ies) object within thirty (30) days to any plans or documentation provided for review pursuant to this MOA, the USACE shall consult with the objecting party(ies) to resolve the objection. If the USACE or objecting party(ies) determines that the objection cannot be resolved, the USACE will forward all documentation relevant to the dispute to the Council. Within thirty (30) days after receipt of all pertinent documentation, the Council will either:

- 1) Provide the USACE with recommendations which the USACE will take into account in reaching a final decision regarding the dispute, or

- 2) Notify the USACE that it will comment pursuant to 36 CFR Section 800.7(c) and proceed to comment. Any Council comment provided in response to such a request will be taken into account by the USACE, in accordance with 36 CFR Section 800.7(c)(4) with reference to the subject of the dispute.

Any recommendations or comment provided by the Council will be understood to pertain only to the subject of the dispute; USACE's responsibility to carry out all of the actions under this agreement that are not the subject of the dispute will remain unchanged.

#### **VI. Amendments**

If any Signatory to this MOA believe that its terms cannot be carried out or that an amendment to the terms must be made, that (those) party(ies) shall immediately consult with the other party(ies) to develop amendments in accordance with 36 CFR 800.6(c)(7). If an amendment cannot be agreed upon, the dispute resolution process set forth in Stipulation V will be followed.

#### **VII. Termination**

Any Signatory to this MOA may terminate the agreement by providing notice to the other parties, provided that the Signatories and Concurring party(ies) will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. Termination of this MOA will require compliance with 36 CFR 800. This MOA may be terminated by the execution of a subsequent MOA that explicitly terminates or supersedes its terms.

#### **VIII. Duration**

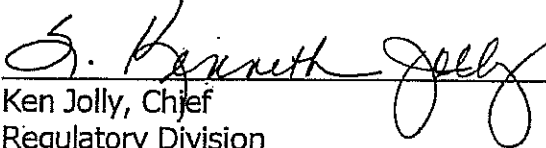
Unless terminated pursuant to Stipulation VII above, this MOA will be in effect until USACE, in consultation with the other Signatory and Concurring Party(ies), determines that all of its terms have satisfactorily been fulfilled or if NCDOT is unable or decides not to construct the Undertaking.



Execution of this Memorandum of Agreement by USACE and the North Carolina SHPO, its subsequent filing with the Council, and implementation of its terms evidence that USACE has afforded the Council an opportunity to comment on the Undertaking and that USACE has taken into account the effects of the Undertaking on the historic property.

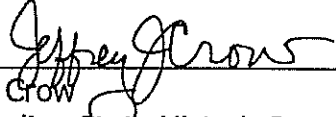
**AGREE:**

**United States Army Corps of Engineers**

  
Ken Jolly, Chief  
Regulatory Division  
Wilmington District Office

6-6-11  
Date

**State Historic Preservation Officer**

  
Jeffrey J. Crow  
North Carolina State Historic Preservation Officer

4/25/11  
Date

FILED:

By: \_\_\_\_\_  
Advisory Council on Historic Preservation

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

**MEMORANDUM OF AGREEMENT  
BETWEEN THE  
UNITED STATES ARMY CORPS OF ENGINEERS  
AND THE  
NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE  
FOR  
US 13/158 WIDENING  
BETWEEN US 158/NC 45 NEAR WINTON, HERTFORD  
COUNTY AND US 158 IN TARHEEL, GATES COUNTY  
HERTFORD AND GATES COUNTIES, NORTH CAROLINA  
TIP PROJECT NO. R-2507A  
STATE PROJECT NO. 35488.1.1**

Execution of this Memorandum of Agreement by USACE and the North Carolina SHPO, its subsequent filing with the Council, and implementation of its terms evidence that USACE has afforded the Council an opportunity to comment on the Undertaking and that USACE has taken into account the effects of the Undertaking on the historic property.

**CONCUR:**

**North Carolina Department of Transportation**



Robert Andrew Joyner, P.E.  
Human Environment Unit Head

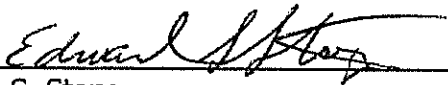
5/3/11  
Date



**MEMORANDUM OF AGREEMENT  
BETWEEN THE  
UNITED STATES ARMY CORPS OF ENGINEERS  
AND THE  
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**CONCUR:**

  
\_\_\_\_\_  
Edward S. Story

5-14-11  
\_\_\_\_\_  
Date



**MEMORANDUM OF AGREEMENT  
BETWEEN THE  
UNITED STATES ARMY CORPS OF ENGINEERS  
AND THE  
NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE  
FOR  
US 13/158 WIDENING  
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**CONCUR:**

*Dorothy Lawrence Bauerle*  
Dorothy Lawrence Bauerle

*May 13, 2011*  
Date

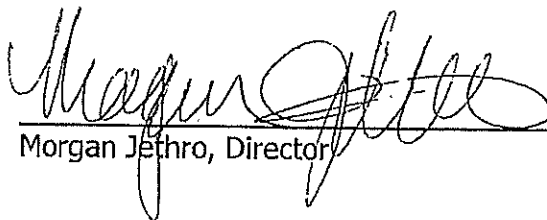



**MEMORANDUM OF AGREEMENT  
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**CONCUR:**

**Gates County Planning and Development Services**

  
Morgan Jethro, Director



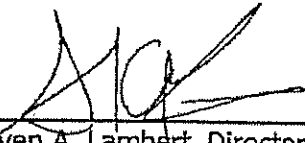
Date

**MEMORANDUM OF AGREEMENT  
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**CONCUR:**

**Albemarle Rural Planning Organization**

  
\_\_\_\_\_  
Steven A. Lambert, Director

APR 13, 2011  
\_\_\_\_\_  
Date

## **APPENDIX A**

### **Historic Structures and Landscape Recordation Plan**

#### **US 13/158 WIDENING BETWEEN US 158/NC 45 NEAR WINTON, HERTFORD COUNTY AND US 158 IN TARHEEL, GATES COUNTY HERTFORD AND GATES COUNTIES, NORTH CAROLINA TIP PROJECT NO. R-2507A STATE PROJECT NO. 35488.1.1**

##### **Photographic Requirements**

- Overall views of the Story's Crossroads Historic District and its immediate surroundings;
- Overall views of the Story Family Farm and Cemetery and the Edward Cross Story House and related fields and woodland;
- Elevations and oblique views of all component buildings, structures, and landscape elements and details of representative structural and ornamental features.

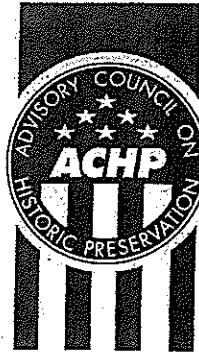
##### **Photographic Format**

- All images will be captured, labeled, and stored according to the North Carolina State Historic Preservation Office's "Policy and Guidelines for Digital Photography for Historic Property Surveys, National Register Nominations and NRAC PowerPoint Presentations, Revised November 2008."

##### **Copies and Curation**

- One (1) set of all photographic documentation will be deposited with the North Carolina Division of Archives and History/State Historic Preservation Office, to be made a permanent part of the statewide survey and iconographic collection.
- One (1) set of all photographic documentation will be deposited in the files of the Historic Architecture Group of NCDOT, and with the property owners or their designated representatives.





*Preserving America's Heritage*

June 27, 2011

S. Kenneth Jolly, Chief  
Regulatory Division  
Wilmington District Office  
Corps of Engineers  
P.O. Box 1890  
Wilmington, NC 28402-1890

Ref: Filing of Executed Memorandum of Agreement regarding the US 13/158 Widening between US 158/NC 45 near Winton, Hertford County and US 158 in Tarheel, Gates County in Hertford and Gates Counties, North Carolina

Dear Mr. Jolly:

The Advisory Council on Historic Preservation (ACHP) has received the Memorandum of Agreement (MOA) for the above referenced project. In accordance with Section 800.6(b)(1)(iv) of the ACHP's regulations, the ACHP acknowledges receipt of the MOA. The filing of the MOA, and execution of its terms, completes the requirements of Section 106 of the National Historic Preservation Act and the ACHP's regulations.

We appreciate your providing us with a copy of the MOA and will retain it for inclusion in our records regarding this project. Should you have any questions or require additional assistance, please contact me at (202) 606-8509 or by e-mail at [ljohnson@achp.gov](mailto:ljohnson@achp.gov).

Sincerely,

LaShavio Johnson  
Historic Preservation Technician  
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

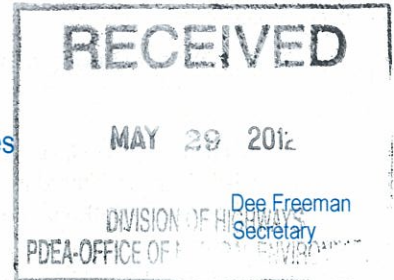
1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004  
Phone: 202-606-8503 • Fax: 202-606-8647 • [achp@achp.gov](mailto:achp@achp.gov) • [www.achp.gov](http://www.achp.gov)



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Charles Wakild, P.E.  
Director

Beverly Eaves Perdue  
Governor



May 24, 2012

Dr. Greg Thorpe, PhD., Manager  
Project Development and Environmental Analysis  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina, 27699-1598

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with  
ADDITIONAL CONDITIONS for the Proposed Widening of U.S. 13/U.S 158 from U.S. 158/N.C. 45  
near Winton to the U.S. 158 Bypass in Tarheel in Hertford and Gates Counties, TIP R-2507A.  
NCDWQ Project No. 20120296.

Dear Dr. Thorpe:

Attached hereto is a copy of Certification No. 003918 issued to The North Carolina Department of Transportation (NCDOT) dated May 24, 2012.

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

Sincerely,

  
Charles Wakild  
Director

Attachments

cc: Bill Biddlecome, US Army Corps of Engineers, Washington Field Office (electronic copy only)  
Jerry Jennings, PE, Division 1 Engineer  
Clay Willis, Division 1 Environmental Officer  
Chris Militscher, Environmental Protection Agency (electronic copy only)  
Gary Jordan, US Fish and Wildlife Service (electronic copy only)  
Travis Wilson, NC Wildlife Resources Commission (electronic copy only)  
Cathy Brittingham, Division of Coastal Management  
Michael Ellis, Ecosystem Enhancement Program  
Garcy Ward, NCDWQ Washington Regional Office  
File Copy

Transportation and Permitting Unit  
1650 Mail Service Center, Raleigh, North Carolina 27699-1617  
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604  
Phone: 919-807-6300 \ FAX: 919-807-6488  
Internet: [www.ncwaterquality.org](http://www.ncwaterquality.org)

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One  
North Carolina  
*Naturally*

# **401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS**

**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 (NCDWQ) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 20.26 acres of jurisdictional wetlands and 278 linear feet of jurisdictional streams in Hertford and Gates Counties. The project shall be constructed pursuant to the application dated received March 23, 2012 along with any additional information received. The authorized impacts are as described below:

## **Stream Impacts in the Chowan River Basin**

Site	Station	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear feet)	Stream Impacts Requiring Mitigation (linear ft)
2	L 42+53 LT/45+00 RT	--	--	12	22	34	0
23	L 193+72/200+00 LT	--	--	--	46	46	0
34	L 286+82/288+95 RT	--	--	163	35	198	163
<b>TOTAL:</b>		<b>0</b>	<b>0</b>	<b>175</b>	<b>103</b>	<b>278</b>	<b>163</b>

**Total Stream Impact for Project: 278 linear feet**

## **Wetland Impacts in the Chowan River Basin**

Site	Station	Wetland Type	Perm. Fill (acres)	Temp. Fill (acres)	Excavation (acres)	Mechanized Clearing (acres)	Hand Clearing (acres)	Total Wetland Impact (acres)	Mitigation Required (acres)
1	Y 39+13/47+58 RT	Non-riparian	0.56	--	--	0.18	--	0.74	0.74
3	L 50+07 RT	Riparian	<0.01	--	--	<0.01	--	0	0
5	L 78+40/105+70 RT	Riparian	2.01	--	--	0.3	--	2.31	2.31
6	L 106+75/130+10 RT	Riparian	2.08	--	--	0.24	--	2.32	2.32
7	L 114+66 LT	Riparian	--	--	--	<0.01	--	0.01	0.01
8	L 133+54/135+15 RT	Non-riparian	0.02	--	--	0.02	--	0.04	0.04
9	L 136+42/138+20 RT	Non-riparian	0.16	--	--	0.02	--	0.18	0.18
10	L 140+38/146+64 RT	Riparian	1.16	--	--	0.07	--	1.23	1.23
11	L 140+85/148+32 LT	Riparian	0.25	--	--	0.09	--	0.34	0.34
12	L 148+52/164+75 RT	Riparian	3.11	--	--	0.19	--	3.3	3.3
13	L 150+29/161+68 LT	Riparian	0.24	--	--	0.13	--	0.37	0.37
14	L 163+11/164+34 LT	Riparian	0.02	--	--	0.01	--	0.03	0.03
15	L 166+16 RT	Non-riparian	0.02	--	--	--	--	0.02	0.02
16	L 170+33/174+46 LT	Non-riparian	0.11	--	--	0.05	--	0.16	0.16
17	L 170+37/174+21 RT	Non-riparian	0.69	--	--	0.04	--	0.73	0.73
18	L 177+53/178+71 RT	Non-riparian	0.13	--	--	0.01	--	0.14	0.14
19	L 179+46/186+38 RT	Non-riparian	1.18	--	--	0.08	--	1.26	1.26
20	L 179+82/184+41 LT	Non-riparian	0.09	--	--	0.04	--	0.13	0.13
21	L 186+73/189+24 RT	Non-riparian	0.46	--	--	0.03	--	0.49	0.49
22	L 187+74/188+97 LT	Non-riparian	0.04	--	--	0.01	--	0.05	0.05
23	L 193+72/200+00 LT	Riparian	0.69	0.04	--	0.11	--	0.84	0.8
24	L 197+26/198+65 RT	Non-riparian	0.11	--	--	--	--	0.11	0.11
25	L 206+37/209+41 LT	Riparian	0.41	--	--	0.03	--	0.44	0.44
26	L 207+11/209+10 RT	Riparian	0.06	--	--	0.02	--	0.08	0.08
27	L 211+55/218+79 RT	Riparian	1.00	--	0.11	0.08	--	1.19	1.19
28	L 215+63/217+36 RT	Non-riparian	0.01	--	--	0.02	--	0.03	0.03
29	L 221+70/226+54 RT	Non-riparian	0.09	--	--	0.05	--	0.14	0.14
30	L 223+64/237+13 LT	Riparian	1.89	--	--	0.16	--	2.05	2.05
31	L 231+19/233+95 RT	Non-riparian	0.05	--	--	0.03	--	0.08	0.08
32	L 239+36/244+31 RT	Non-riparian	1.08	--	--	0.06	--	1.14	1.14
33	L 255+35 LT	Riparian	<0.01	--	--	<0.01	--	0.01	0.01
34	L 286+82/288+95 RT	Non-riparian	0.19	--	--	0.02	--	0.21	0.21
35	L 342+13/344+99 LT	Riparian	0.04	--	--	0.03	--	0.07	0.07
36	Y 41+62/41+95 LT	Non-riparian	0.02	--	--	--	--	0.02	0.02
<b>TOTAL:</b>			<b>17.98</b>	<b>0.04</b>	<b>0.11</b>	<b>2.13</b>	<b>0</b>	<b>20.26</b>	<b>20.22</b>

**Total Wetland Impact for Project: 20.26 acres.**



The application provides adequate assurance that the discharge of fill material into the waters of the Chowan 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 March 23, 2012. Should your project change, you are required to notify the NCDWQ 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 on the same day as the expiration date of the corresponding Corps of Engineers Permit.

**Conditions of Certification:**

**Project Specific Conditions:**

1. The NCDOT Division Environmental Officer or Environmental Assistant will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the potential issues with stream and pipe alignment at the permitted site. NCDWQ staff shall be invited to the pre-construction meeting.
2. Mitigation:
  - a. Compensatory mitigation for 163 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated May 22, 2012 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the EEP Mitigation Banking Instrument signed July 28, 2010.
  - b. Compensatory mitigation for impacts to 20.22 acres wetlands (5.68 acres non-riparian and 14.54 acres riparian) is required. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated May 22, 2012 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed July 28, 2010.
3. At the temporary crossing of Buckhorn Creek (Site 23) all pipes, rock, fill material, etc. shall be placed on barrier fabric placed in the natural channel profile of the stream. The fabric shall be installed in such a way that, as best as practicable, no temporary fill material will contact the natural stream channel. No culverts associated with the temporary crossing shall be buried. When the culvert pipes and other fill material used for the temporary crossing are removed, all pipes, rock, fill dirt, etc. used as temporary fill shall be completely removed and the stream channel shall be restored to the original, natural profile. Any modifications to the stream channel shall be kept to a minimum.
4. In accordance with commitments made in your application, all clearing of vegetation for purpose of relocating overhead power lines within jurisdictional wetlands shall be performed without the use of mechanized equipment.

5. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species.
6. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.
7. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from NCDWQ first.
8. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly.
9. All pile driving or drilling activities shall be enclosed in turbidity curtains unless otherwise approved by NCDWQ in this certification.
10. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water.
11. Turbidity curtains shall be used to isolate all work areas from the stream at the Chowan River, including pile or casement installation, placement of riprap, excavation or filling. Strict adherence to the Construction and Maintenance Best Management Practices will be required.
12. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
13. The stream channel shall be excavated no deeper than the natural bed material of the stream, to the maximum extent practicable. Efforts must be made to minimize impacts to the stream banks, as well as to vegetation responsible for maintaining the stream bank stability. Any applicable riparian buffer impact for access to stream channel shall be temporary and be revegetated with native riparian species.
14. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.
15. The permittee will need to adhere to all appropriate in-water work moratoria (including the use of pile driving or vibration techniques) prescribed by the NC Wildlife Resources Commission. No in-water work is permitted between February 15<sup>th</sup> and June 30<sup>th</sup> of any year, without prior approval from the NC Division of Water Quality and the NC Wildlife Resources Commission. In addition, the permittee shall conform to the NCDOT policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997) at all times.
16. Pipes and culverts used exclusively to maintain equilibrium in wetlands, where aquatic life passage is not a concern, shall not be buried. These pipes shall be installed at natural ground elevation.
17. Tall fescue shall not be used in the establishment of temporary or permanent groundcover within riparian areas. For the establishment of permanent herbaceous cover, erosion control matting shall be used in conjunction with an appropriate native seed mix on disturbed soils within the riparian area and on disturbed steep slopes with the following exception. Erosion control matting is not necessary if the area is contained by perimeter erosion control devices such as silt fence, temporary sediment ditches, basins, etc. Matting should be secured in place with staples, stakes, or wherever possible, live stakes of native trees. Erosion control matting placed in riparian areas shall not contain a nylon mesh grid, which can impinge and entrap small animals. For the establishment of temporary groundcover within riparian areas, hydroseeding along with wood or cellulose based hydro mulch applied from a fertilizer- and limestone-free tank is allowable at

the appropriate rate in conjunction with the erosion control measures. Discharging hydroseed mixtures and wood or cellulose mulch into surface waters is prohibited. Riparian areas are defined as a distance 25 feet landward from top of stream bank.

**General Conditions:**

18. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
19. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
20. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
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. 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.
23. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
24. 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.
25. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
26. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
27. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
28. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.
29. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.
30. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.



31. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If NCDWQ 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, NCDWQ may reevaluate and modify this certification.
32. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification.
33. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction.
34. 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.
35. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
36. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
37. The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery.
38. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify NCDWQ when all work included in the 401 Certification has been completed.
39. A copy of this Water Quality Certification shall be maintained 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.

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 you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered

filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission.  
The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings  
6714 Mail Service Center  
Raleigh, NC 27699-6714  
Telephone: (919)-431-3000, Facsimile: (919)-431-3100

A copy of the petition must also be served on DENR as follows:

Mr. William Cary, General Counsel  
Department of Environment and Natural Resources  
1601 Mail Service Center  
Raleigh, NC 27699-1601

This the 24th day of May 2012

DIVISION OF WATER QUALITY



*for* Charles Wakild  
Director

WQC No. 003918



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Charles Wakild, P.E.  
Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

NCDWQ Project No.: \_\_\_\_\_ County: \_\_\_\_\_

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

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

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

**Certificate of Completion**

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

***Applicant's Certification***

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

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

***Agent's Certification***

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

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

***Engineer's Certification***

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

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

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

Date \_\_\_\_\_

Transportation and Permitting Unit  
1650 Mail Service Center, Raleigh, North Carolina 27699-1617  
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604  
Phone: 919-807-6300 \ FAX: 919-807-6488  
Internet: [www.ncwaterquality.org](http://www.ncwaterquality.org)

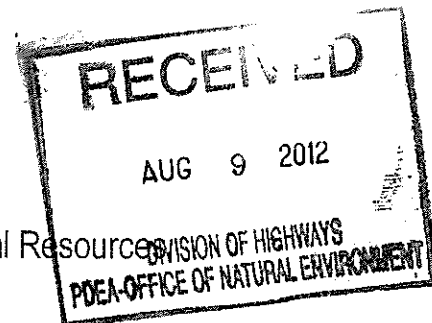
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One  
North Carolina  
*Naturally*





North Carolina Department of Environment and Natural Resources  
Division of Coastal Management



Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

August 6, 2012

N.C. Department of Transportation  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Sir or Madam:

The enclosed permit constitutes authorization under the Coastal Area Management Act, and where applicable, the State Dredge and Fill Law, for you to proceed with your project proposal. The original (buff-colored form) is retained by you and it must be available on site when the project is inspected for compliance. Please sign both the original and the copy and return the copy to this office in the enclosed envelope. Signing the permit and proceeding means you have waived your right of appeal described below.

If you object to the permit or any of the conditions, you may request a hearing pursuant to NCGS 113A-121.1 or 113-229. Your petition for a hearing must be filed in accordance with NCGS Chapter 150B with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27611-6714, (919) 733-2698 within twenty (20) days of this decision on your permit. You should also be aware that if another qualified party submits a valid objection to the issuance of this permit within twenty (20) days, the matter must be resolved prior to work initiation. The Coastal Resources Commission makes the final decision on any appeal.

The project plan is subject to those conditions appearing on the permit form. Otherwise, all work must be carried out in accordance with your application. Modifications, time extensions, and future maintenance requires additional approval. Please read your permit carefully prior to starting work and review all project plans, as approved. If you are having the work done by a contractor, it would be to your benefit to be sure that he fully understands all permit requirements.

From time to time, Department personnel will visit the project site. To facilitate this review, we request that you complete and mail the enclosed Notice Card just prior to work initiation. However, if questions arise concerning permit conditions, environmental safeguards, or problem areas, you may contact Department personnel at any time for assistance. By working in accordance with the permit, you will be helping to protect our vitally important coastal resources.

Sincerely,

Douglas V. Huggett  
Major Permits and Consistency Manager

Enclosure



Permit Class  
**NEW**

Permit Number  
**92-12**

STATE OF NORTH CAROLINA  
Department of Environment and Natural Resources  
and  
Coastal Resources Commission

# Permit

for

☒ Major Development in an Area of Environmental Concern  
pursuant to NCGS 113A-118

☐ Excavation and/or filling pursuant to NCGS 113-229

Issued to **N.C. Department of Transportation, 1548 Mail Service Center, Raleigh, NC 27699-1548**

Authorizing development in Hertford and Gates County at Chowan River, US 13/US 158 between Winton and Tarheel, as requested in the permittee's application dated 5/11/12, including the attached workplan drawings (203) as described in Condition No. 1 below.

This permit, issued on 8/3/12, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

**TIP No. R-2507A, Roadway Widening including New Bridge over the Chowan River**

- 1) All work authorized by this permit shall be carried out in accordance with the following attached workplan drawings, except as modified herein:

Wetlands and Streams Impacts Drawings: 78 dated 3/2/12; 4 dated 3/5/12 and 6 dated 6/29/12

Roadway Design Drawings: 79 dated 1/24/12.

Utility Impacts Drawings: 36 dated 5/1/12.

**(See attached sheets for Additional Conditions)**

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date. An appeal requires resolution prior to work initiation or continuance as the case may be.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

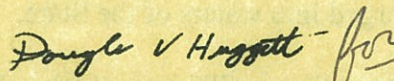
Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

**No expiration date, pursuant to GS 136-44.7B**

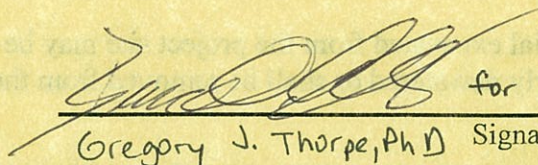
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.



Braxton C. Davis, Director  
Division of Coastal Management

This permit and its conditions are hereby accepted.



for  
Gregory J. Thorpe, PhD Signature of Permittee



**ADDITIONAL CONDITIONS**

- 2) In accordance with commitments made within the permit application, and in order to protect anadromous fisheries resources during spawning periods, no in-water work shall be conducted in the Chowan River and the adjacent floodplain (when flooded) between February 15 to June 30 of any year without prior approval of the N.C. Division of Coastal Management (DCM), in consultation with the N.C. Wildlife Resources Commission.
- 3) The permittee shall implement the N.C. Department of Transportation's (NCDOT's) Stream Crossing Guidelines for Anadromous Fish Passage, except as modified in Condition No. 2 of this permit.
- 4) Unless specifically altered herein, any mitigative measures or environmental commitments specifically made by the permittee in the CAMA permit application and/or the Finding of No Significant Impact (FONSI) document dated 4/27/11 shall be implemented, regardless of whether or not such commitments are addressed by individual conditions of this permit.
- 5) All construction access for the permanent bridge over the Chowan River shall be through the use of floating barges, the partially constructed new bridge, and existing high ground areas.
- 6) Barges used for construction access shall be removed immediately when they are no longer needed.
- 7) The installation of the piles for the permanent bridge over the Chowan River shall be accomplished by pile driving and/or the use of a vibratory hammer. Should the permittee and/or its contractor propose to utilize another type of pile installation, such as jetting or drilled shaft construction, additional authorization from DCM shall be required.
- 8) In accordance with commitments made by the permittee in the permit application, there shall not be any direct discharge from the new bridge over the Chowan River into wetlands or Waters of the State.
- 9) The retaining walls shall be solid and constructed of treated wood, concrete slabs, metal or vinyl sheet piles or other suitable materials approved by DCM.
- 10) The retaining walls shall be structurally tight so as to prevent seepage of fill materials through the structure.
- 11) The retaining walls shall be in place prior to any backfilling activities.
- 12) All backfill material shall be obtained from a high ground source. No unconfined backfill shall be discharged into waters of the State.
- 13) No excavation or filling shall take place at any time in any vegetated wetlands or surrounding waters outside of the alignment of the areas indicated on the attached workplan drawings, without permit modification.
- 14) All fill material shall be clean and free of any pollutants except in trace quantities.
- 15) Material excavated from the project site may be used in fill areas associated with the project once properly dewatered or shall be removed from the site and taken to a high ground location.



**ADDITIONAL CONDITIONS**

- 16) All excavated materials shall be confined above normal water level and landward of regularly or irregularly flooded wetlands behind adequate dikes or other retaining structures to prevent spillover of solids into any wetlands or surrounding waters.
- 17) The temporary placement and double handling of any excavated or fill material within wetlands or Waters of the State is not authorized, with the exception of that fill necessary for the temporary crossing of Buckhorn Creek.
- 18) Live concrete shall not be allowed to contact the water in or entering into Waters of the State, or the adjacent wetlands.
- 19) Waste materials and debris generated during construction of the new bridge over the Chowan River and associated roadway as authorized by this permit shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations from any relevant state, federal, or local authorities are obtained.
- 20) The placement of riprap shall be limited to the areas as depicted on the attached workplan drawings. The riprap material shall be clean and free from loose dirt or any pollutant except in trace quantities. The riprap material shall consist of clean rock or masonry materials such as, but not limited to, granite, marl or broken concrete.

**Utility Impacts**

**NOTE:** Construction of the project will also require the relocation of electric, gas, cable, sewer, internet, telephone and water utility lines with associated hand and mechanized clearing. Wetland and stream impacts resulting from the utility relocations have been included in the total wetland and stream impacts for this project.

- 21) Any utility work associated with this project that is not specifically depicted on the attached workplan drawings, or described within the attached permit application, shall require approval from the DCM, either under the authority of this permit, or by the utility company obtaining separate authorization.

**NOTE:** Plans and specifications for the relocation and/or replacement of potable water supply lines must be submitted to the N.C. Division of Environmental Health, Public Water Supply Plan Review Section for approval prior to construction. Final approval must be issued before water lines are placed into service.

**NOTE:** Engineers and contractors should be aware of utility locations during entrance and egress from the project area. The permittee is advised to contact the Hertford County Water Department, Gates County Water Department and Town of Winton to assist with the location of existing water mains in the project area.



**ADDITIONAL CONDITIONS****Impacts to Wetlands and Waters of the State and Compensatory Mitigation**

**NOTE:** This project will permanently impact approximately 20.22 acres of 404 wetlands (17.98 acres due to fill, 0.11 acres due to excavation, and 2.13 acres due to mechanized clearing). This project will temporarily impact approximately 0.04 acres of 404 wetlands due to fill and approximately 1.51 acres of 404 wetlands due to hand clearing. This project will permanently impact approximately 175 linear feet of streams and will temporarily impact approximately 103 linear feet of streams.

**NOTE:** In accordance with the Ecosystem Enhancement Program (EEP) letter dated 5/22/12, compensatory mitigation for permanent impacts of 163 linear feet of stream, 5.68 acres of non-riparian 404 wetlands and 14.54 acres of riparian 404 wetlands associated with the authorized project shall be provided by the EEP in accordance with the EEP In-Lieu Fee Instrument dated 7/28/10.

**Sedimentation and Erosion Control**

- 22) Turbidity curtains shall be used to isolate all in-water work areas, including pile installation, from the adjacent waters of the Chowan River. The turbidity curtains shall be of sufficient length and effectiveness to prevent a visible increase in the amount of suspended sediments in adjacent waters. The turbidity curtains shall encircle the immediate work area, but, shall not impede navigation. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and shall only be removed when turbidity within the curtains reaches ambient levels.
- 23) Appropriate sedimentation and erosion control devices, measures or structures shall be implemented to ensure that eroded materials do not enter adjacent wetlands, watercourses and properties (e.g. silt fence, diversion swales or berms, etc.).
- 24) This project shall conform to all requirements of the N.C. Sedimentation Pollution Control Act and the NCDOT's Memorandum of Agreement with the Division of Land Resources.
- 25) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.

**Stormwater Management**

**NOTE:** The N.C. Division of Water Quality (DWQ) confirmed in a letter dated 5/4/12 (SW7120210) that the subject project is excluded from State Stormwater permitting requirements as set forth in Section 2(d)(1) of Session Law 2008-211, effective October 1, 2008, and the stormwater rules under Title 15A NCAC 2H .1000, as amended.



**ADDITIONAL CONDITIONS**

**General**

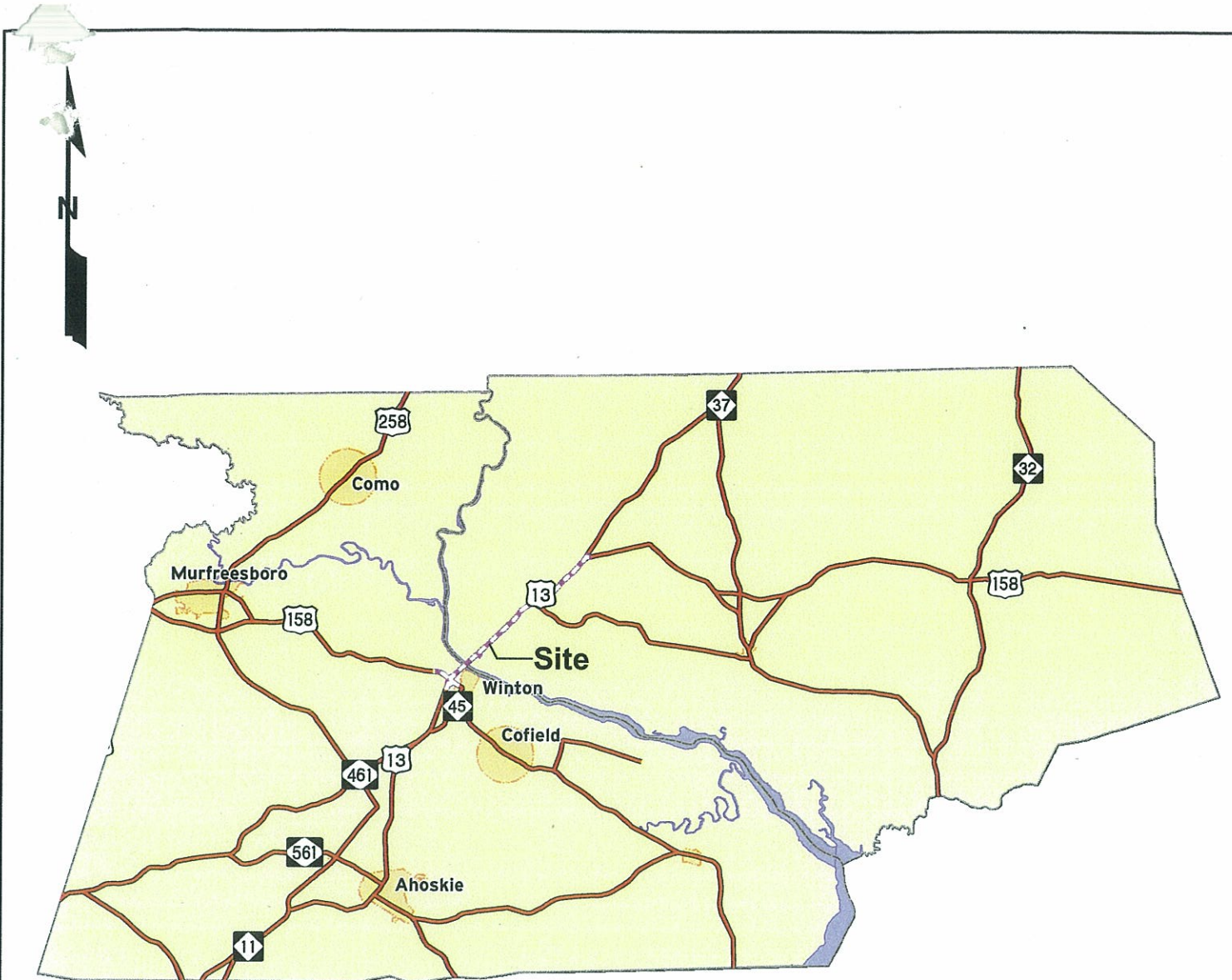
- 26) No attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work following completion of construction activities.
- 27) During bridge construction, the permittee shall make every attempt not to impede navigation in the project vicinity at the Chowan River. If this is not possible, then adequate notice shall be provided to the public that navigation will be limited during construction. The notice shall include an estimate of the amount of time that the limited navigation will occur.
- 28) The permittee shall exercise all available precautions in the day-to-day operation of the facility to prevent waste from entering the adjacent waters and wetlands.
- 29) If it is determined that additional permanent and/or temporary impacts (such as but not limited to temporary access roads, detours, or matting to transport equipment across wetlands) are necessary that are not shown on the attached workplan drawings or described in the authorized permit application, a permit modification and/or additional authorization from DCM shall be required. In addition, any changes in the approved plan may also require a permit modification and/or additional authorization from DCM. The permittee shall contact a representative of DCM prior to commencement of any such activity for this determination and any permit modification.
- 30) The permittee shall install and maintain at his expense any signal lights or signals prescribed by the U.S. Coast Guard, through regulation or otherwise, on the authorized facilities. At a minimum, permanent reflectors shall be attached to the structure in order to make it more visible during hours of darkness or inclement weather.
- 31) Development authorized by this permit shall only be conducted on lands owned by the N.C. Department of Transportation and/or its Right-of-Ways and/or easements.
- 32) The N.C. Division of Water Quality (DWQ) authorized the proposed project on 5/24/12 (DWQ Project No. 20120296) under Water Quality Certification No. 3918. Any violation of the Certification approved by DWQ shall be considered a violation of this CAMA permit.
- 33) The permittee and/or his contractor shall contact the DCM Transportation Project Coordinator in Elizabeth City at (252) 264-3901 to request a preconstruction conference prior to project initiation.

**NOTE:** A Memorandum of Agreement dated 4/27/11 exists between the U.S. Army Corps of Engineers, the N.C. Department of Transportation and the North Carolina Historic Preservation Office for the Story's Crossroads Historic District.

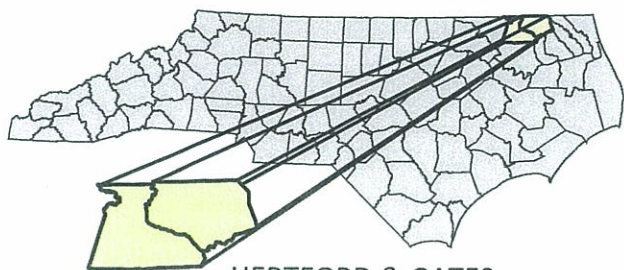
**NOTE:** The U.S. Army Corps of Engineers has assigned the proposed project COE Action ID No. SAW-2006-10391.

**NOTE:** This permit does not eliminate the need to obtain any additional permits, approvals or authorizations that may be required.





## VICINITY MAP



HERTFORD & GATES

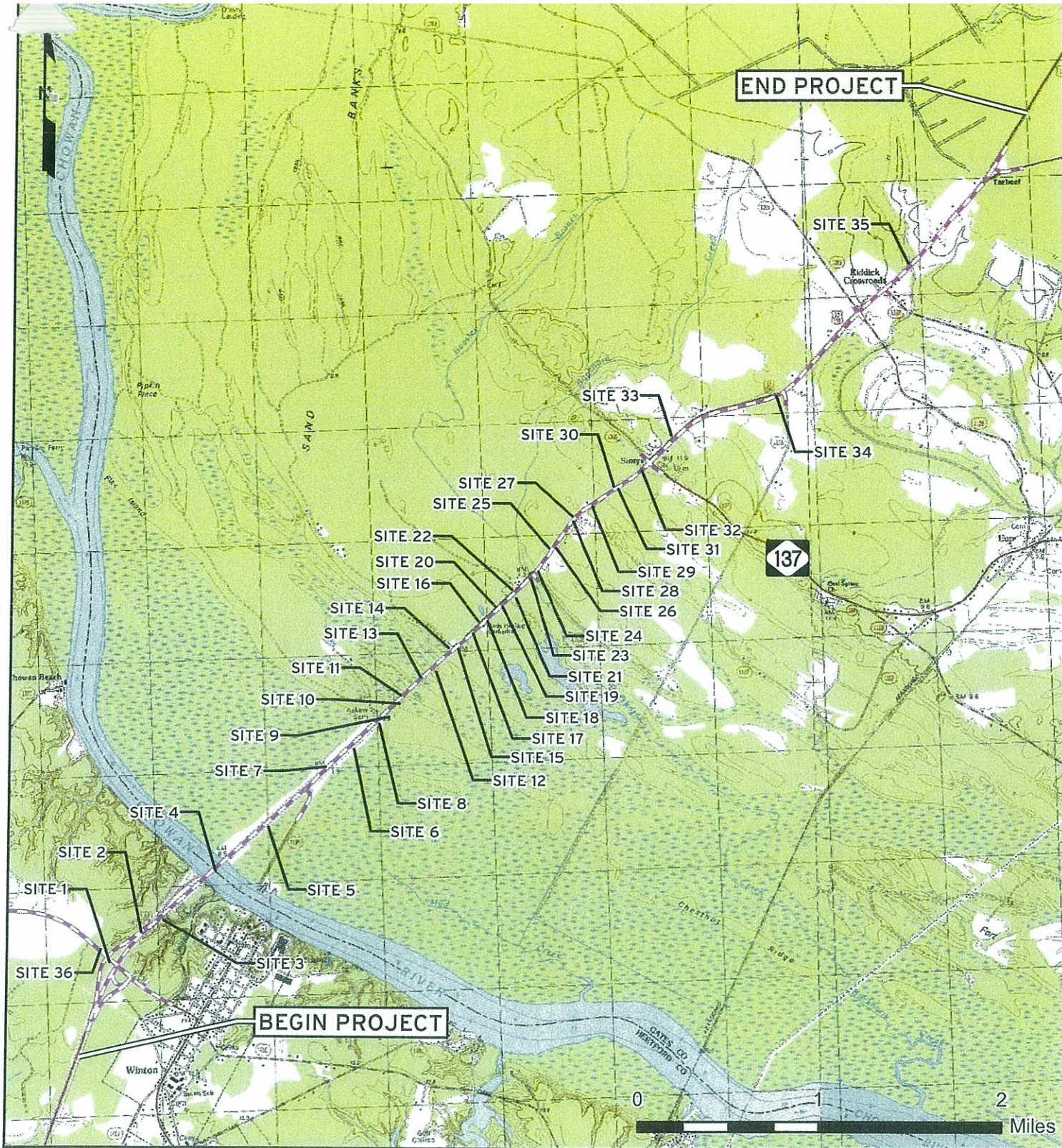
## NCDOT

DIVISION OF HIGHWAYS  
HERTFORD AND GATES COUNTIES

PROJECT: C202616 (R-2507A)  
US 13 / US 158 WIDENING  
WETLAND/ STREAM PERMIT DRAWINGS

SHEET 1





# LOCATION

**NCDOT**  
DIVISION OF HIGHWAYS  
HERTFORD AND GATES COUNTIES

PROJECT: C202616 (R-2507A)  
US 13 / US 158 WIDENING  
WETLAND/ STREAM PERMIT DRAWINGS  
SHEET 2



WETLAND PERMIT IMPACT SUMMARY										
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS			SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW Impacts (ac)	Temp. SW Impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)
1	Y 39+13/47+58 RT	NA	0.56		0.18					
2	L 42+53 LT/45+00 RT	48"							12	22
3	L 50+07 RT	WS	< 0.01		< 0.01		< 0.01	< 0.01		
5	L 78+40/105+70 RT	NA	2.01		0.30					
6	L 106+75/130+10 RT	NA	2.08		0.24					
7	L 114+66 LT	60" RCP			< 0.01					
8	L 133+54/135+15 RT	NA	0.02		0.02					
9	L 136+42/138+20 RT	NA	0.16		0.02					
10	L 140+38/146+64 RT	NA	1.16		0.07					
11	L 140+85/148+32 LT	NA	0.25		0.09					
12	L 148+52/164+75 RT	NA	3.11		0.19					
13	L 150+29/161+68 LT	NA	0.24		0.13					
14	L 163+11/164+34 LT	NA	0.02		0.01					
15	L 166+16 RT	NA	0.02							
16	L 170+33/174+46 LT	24" RCP	0.11		0.05					
17	L 170+37/174+21 RT	24" RCP	0.69		0.04					
18	L 177+53/178+71 RT	NA	0.13		0.01					
19	L 179+46/186+38 RT	NA	1.18		0.08					
20	L 179+62/184+41 LT	NA	0.09		0.03					
21	L 186+73/189+24 RT	NA	0.46		0.04					
22	L 187+74/188+97 LT	NA	0.04		0.01					
23	L 193+72/200+00 LT	NA	0.69	0.04	0.11			0.01		46
24	L 197+26/198+65 RT	NA	0.11							
25	L 206+37/209+41 LT	42" RCP	0.41		0.03					
26	L 207+11/209+10 RT	42" RCP	0.06		0.02					
27	L 211+55/218+79 RT	NA	1.00	0.11	0.08					
28	L 215+63/217+36 RT	NA	0.01		0.02					
29	L 221+70/226+54 RT	NA	0.09		0.05					
30	L 223+64/237+13 LT	NA	1.89		0.16					
31	L 231+19/233+95 RT	NA	0.05		0.03					
32	L 239+36/244+31 RT	36" RCP	1.08		0.06					
33	L 255+35 LT	NA	< 0.01		< 0.01					
34	L 286+82/288+95 RT	2.30" RCP	0.19		0.02					
35	L 342+13/344+99 LT	72" RCP	0.04		0.03		0.02	< 0.01	163	35
36	Y 41+62/41+95 LT	NA	0.02							
TOTALS:			* 17.98	0.04	0.11	* 2.13	* 0.02	* 0.02	175	103

\*: SUMMARY REFLECTIVE OF ACTUAL IMPACTED AREA

\*\*\*: 7 BENTS FOR CHOWAN RIVER BRIDGE WILL RESULT IN <0.01 ACRE OF FILL IN SURFACE WATERS

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

HERTFORD AND GATES COUNTIES  
PROJECT: C202616 (R-2507A)  
WETLAND / STREAM  
PERMIT DRAWING SHEET 3 OF 78

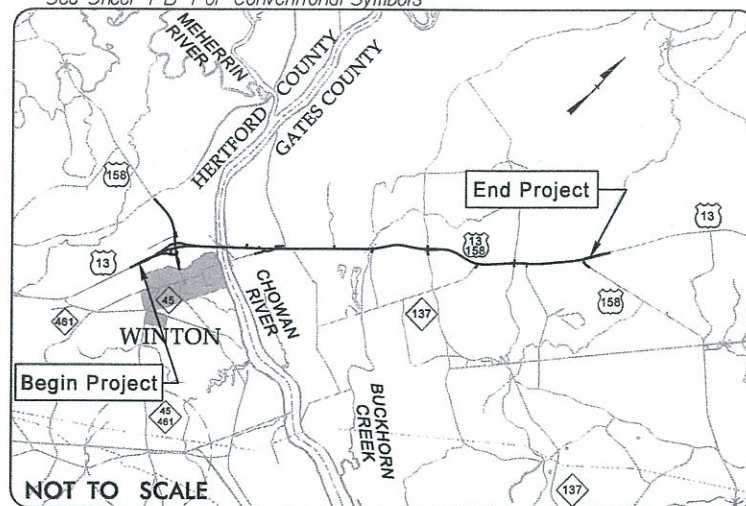


PROP. NO.	PROPERTY OWNER NAME	PROPERTY OWNER ADDRESS
5	HERTFORD COUNTY	PO BOX 116, WINTON, NC 27986
23	STATE OF NORTH CAROLINA	1321 MAIL SERVICE CENTER, RALEIGH, NC 27699
27	SCARBOROUGH, WANDA & ASKEW, THURMAN E. JR	1202 AIRY GROVE CHURCH RD, KINSTON, NC 28501
28,29	ASKEW, WALTER L.	877 US 13 SOUTH, EURE, NC 27935
30	CARTER & SONS FURNITURE CO.,INC.	219 W. WASHINGTON ST, SUFFOLK, VA 23434
31	HALE, MERLE T.	839 HWY 13, EURE, NC 27935
32	COOKSEY, JEAN W. & COOKSEY, CHARLES W.	850 US 13 SOUTH, EURE, NC 27935
33	TILLET, ELEAZER A. SR & TILLET, PHYLLIS J.	4898 ROBIN HOOD RD, NORFOLK, VA 23513
34	STATE OF NORTH CAROLINA	116 W. JONES ST., RALEIGH, NC 27602
38	SPRUILL, DAVID A. & SPRUILL, JUANITA L.	76 LITTLE ISLAND RD, EURE, NC 27935
39	HEDGEPEETH, JEANETTE A.	646 US 13 SOUTH, EURE, NC 27935
43	POPE, VERNON NATHAN & POPE, SANDRA H.	630 US 13 SOUTH, EURE, NC 27935
44	COXE, THOMAS C., IV & COXE, NAN L.	2901 KINGS FORK RD, SUFFOLK, VA 23434
45	HEDGEPEETH, SADIE LIFE ESTATE	610 US 13 SOUTH, EURE, NC 27935
46	PARKER, CLAYTON P. & PARKER, JAMES B.	2393 CAPE ARBOR DR, VIRGINIA, VA 23451
47	HUDGINS, WAYNE A. & HUDGINS, ROSE LONG	208 W. THIRD ST, KILL DEVIL HILLS, NC 27948
48	ASKEW, JOHN W. TRUSTEE/REV LIV TR	203 BEDFORD CT, PORTSMOUTH, VA 23701
49	POPE, RICHARD A. & POPE, JACQUELINE C.	PO BOX 96, EURE, NC 27935
50	STORY, EDWARDS S.	471 US 13 S., EURE, NC 27935
51	SMOAK, MARY STORY	2560 62ND AVE N LOT 310, ST. PETERSBURG, FL 33702
56	JOHNSON, FRANKFORD MILAM IRREV TRUST	1728 QUAL RIDGE RD, RALEIGH, NC 27609
57	N.T. LEWIS, LLC.	PO BOX 147, GATESVILLE, NC 27938
103	ADAMS, RAY	1118 JAY TRL, MURFREESBORO, NC 27855
WETLAND AND STREAM IMPACTS		<p>N.C. DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS</p> <p>HERTFORD AND GATES COUNTIES PROJECT: 35488.3.1 (R-2507A)</p> <p>PERMIT DRAWING SHEET 4 OF 78</p>

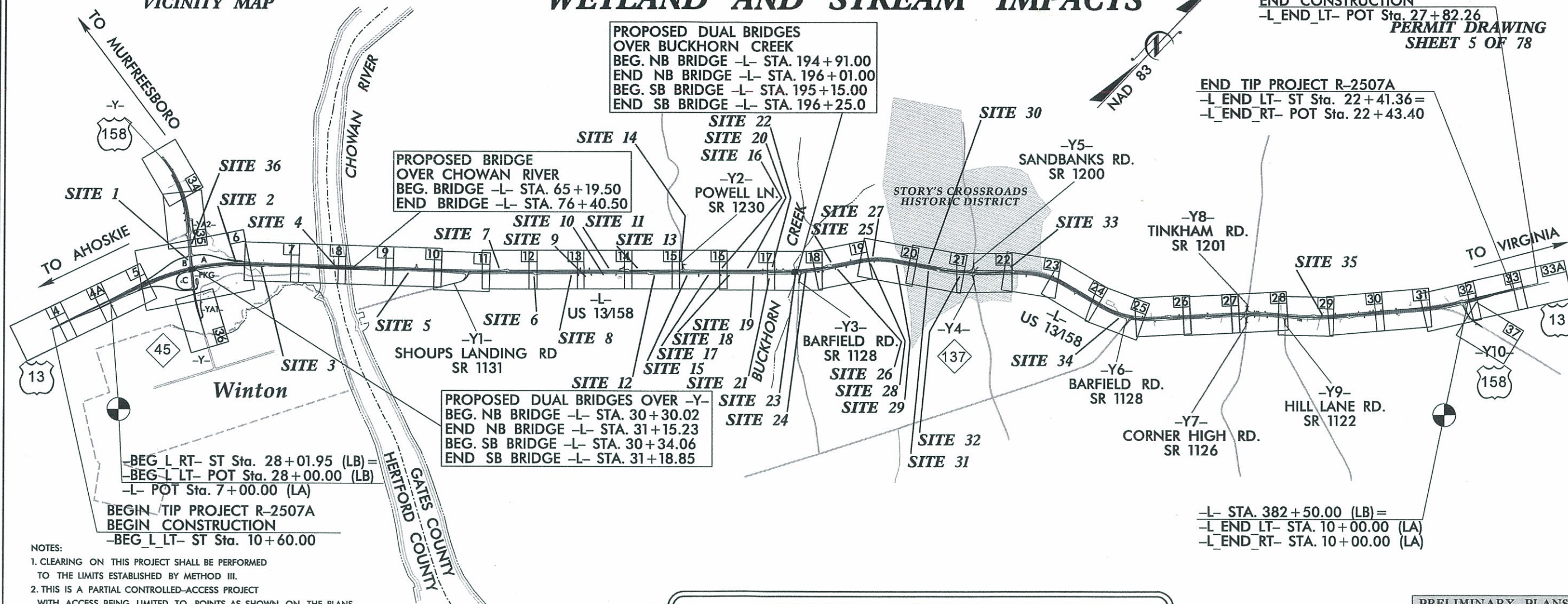


TIP PROJECT: R-2507A

CONTRACT: C202616



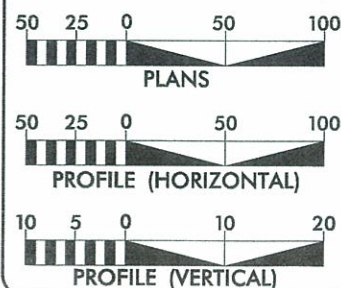
VICINITY MAP



## NOTES:

1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
2. THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
3. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

## GRAPHIC SCALES



## DESIGN DATA

ADT 2015 = 11,200  
ADT 2035 = 16,900  
DHV = 11 %  
D = 55 %  
T = 20 % \*  
V = 60 MPH  
\* TTST 13% DUAL 7%  
FUNC. CLASS =  
RURAL PRINCIPAL ARTERIAL

## PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2507A..... 7.539 mi  
LENGTH STRUCTURE TIP PROJECT R-2507A..... 0.235 mi  
TOTAL LENGTH TIP PROJECT R-2507A..... 7.772 mi

NOTE: LENGTHS BASED ON NORTHBOUND LANES.

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

## HERTFORD / GATES COUNTIES

LOCATION: US 13 /US 158 WIDENING FROM US 158 /NC 45  
NEAR WINTON TO THE US 158 BYPASS IN TARHEEL

TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING,  
RESURFACING, GUARDRAIL, & STRUCTURES  
WETLAND AND STREAM IMPACTS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2507A	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
35488.3.1		CONST.	



END CONSTRUCTION  
-L END LT- POT Sta. 27+82.26  
PERMIT DRAWING  
SHEET 5 OF 78

END TIP PROJECT R-2507A  
-L END LT- ST Sta. 22+41.36 =  
-L END RT- POT Sta. 22+43.40

## DESIGN - BUILD TEAM

RK&amp;K

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE, SUITE 350  
RALEIGH, NORTH CAROLINA 27609  
NC LICENSE NO. F-0112  
1-888-521-4455 OR 919-878-9560

FOR  
DIVISION OF HIGHWAYS

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

JULY 22, 2011

LETTING DATE:

JULY 22, 2011

J. T. Peacock, Jr., P.E.  
PROJECT ENGINEER

Michael T. Merritt, P.E.  
PROJECT DESIGN ENGINEER

CONTRACTOR :

ev.williams  
SITE DEVELOPMENT & HIGHWAY CONSTRUCTION

E.V. WILLIAMS, INC.  
925 S. MILITARY HIGHWAY  
VIRGINIA BEACH, VA 23464

HYDRAULICS ENGINEER

SIGNATURE:

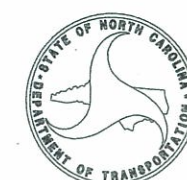
P.E.

ROADWAY DESIGN  
ENGINEER

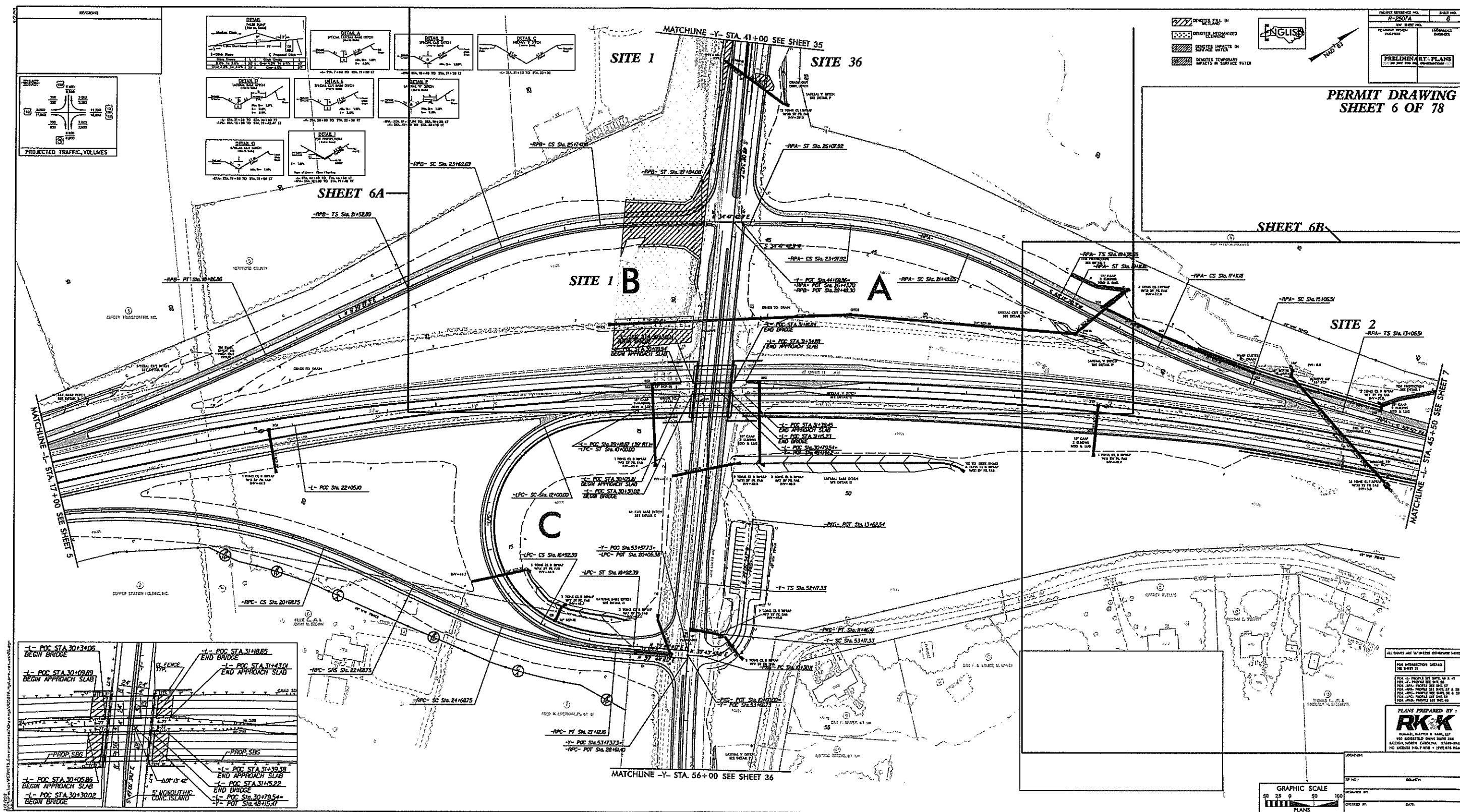
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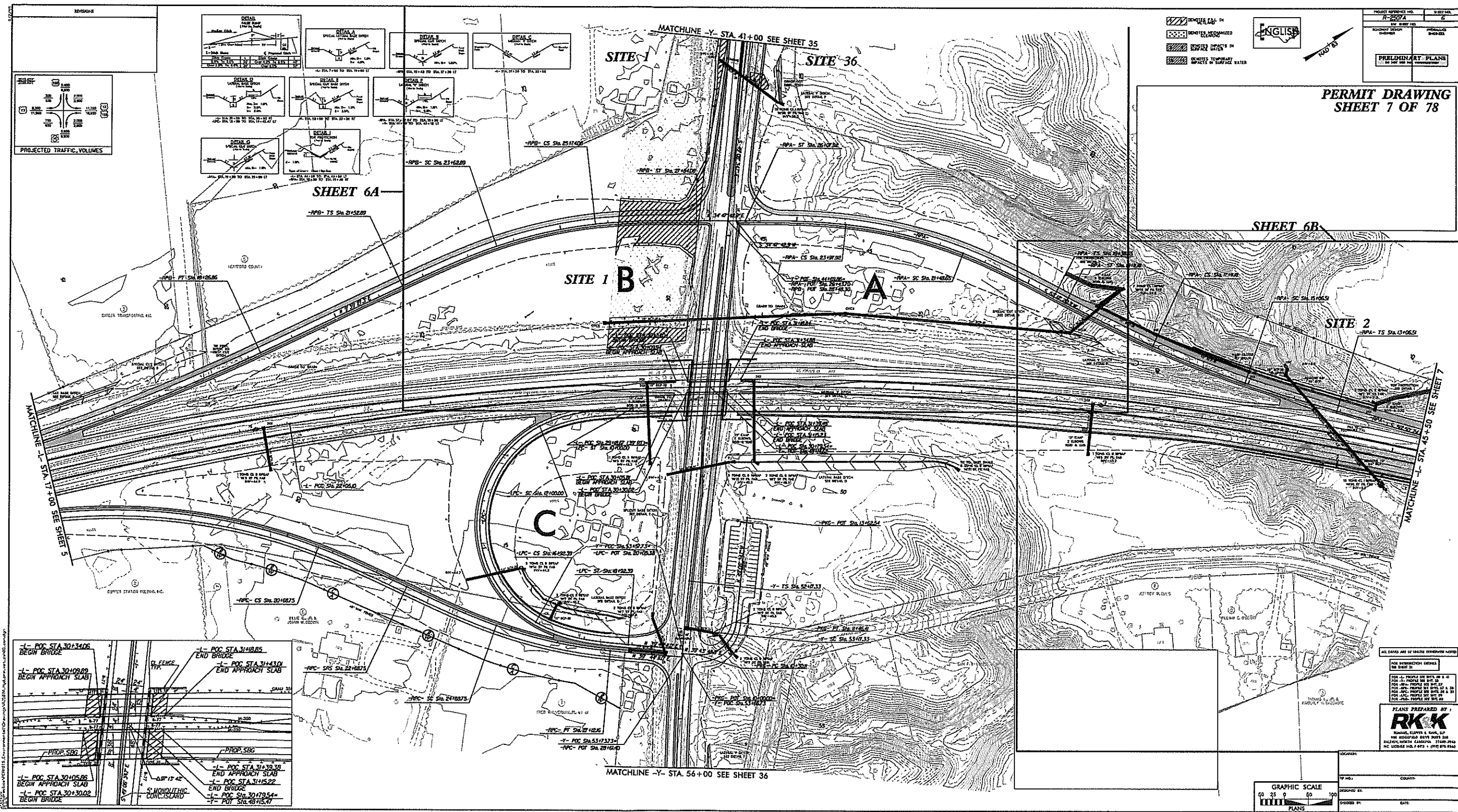
P.E.

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

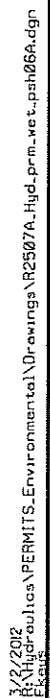






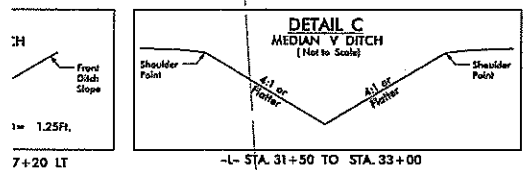
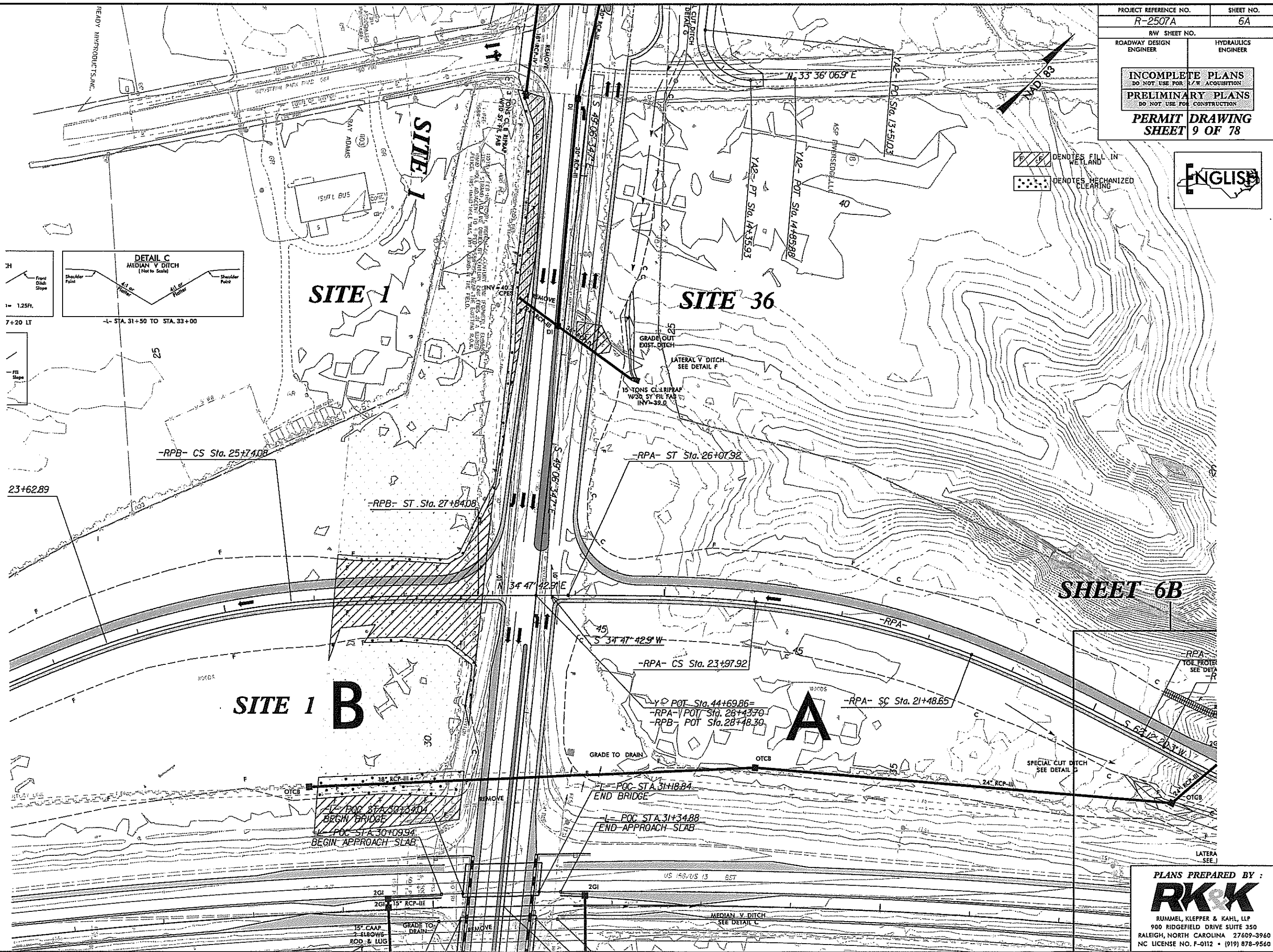






8/17/99

3/2/2002 R:\Hydraulics\PERMITS\Environmental\Drawings\R2507A\_Hyd-prm-wet-psd06A-con.dgn



PROJECT REFERENCE NO.	SHEET NO.
R-2507A	6A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWING SHEET 9 OF 78	

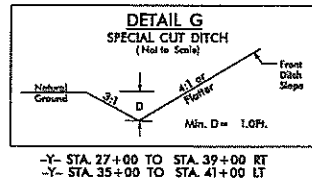
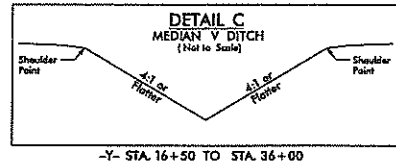


SHEET 6B

PLANS PREPARED BY:  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560



8/17/99



PROJECT REFERENCE NO.	SHEET NO.
R-2507A	35
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWING SHEET 10 OF 78	



8 DENOTES FILL IN WETLAND  
8 DENOTES MECHANIZED CLEARING

ASP RIVERSEDGE, LLC

ASP RIVERSEDGE, LLC

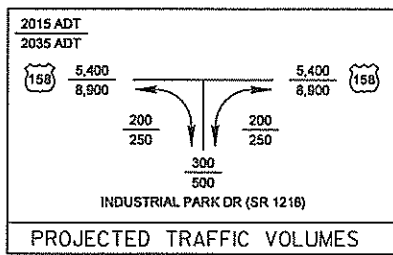
-YA2- POT Sta. 10+00.00=  
-Y- POS Sta. 34+75.0 (122.58' LT)

YA2- POT Sta. 14+85.88

YA2- PT Sta. 14+35.93

MATCHLINE -Y- STA. 28+00 SEE SHEET 34

MATCHLINE -Y- STA. 41+00 SEE SHEET 6



EXISTING RW SHOWN PURCHASED  
UNDER THE R-2583 PROJECT

**SHEET 6A**

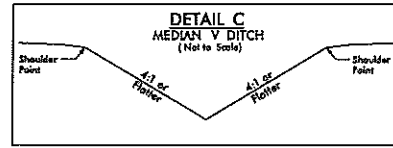
**SITE 1**

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED  
FOR BULB DETAILS SEE SHEET 2H  
FOR -Y- PROFILE SEE SHT. 55  
FOR -YA2- PROFILE SEE SHT. 62

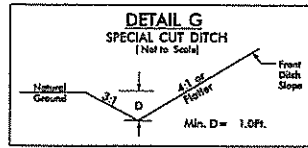
PLANS PREPARED BY :  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

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8/17/99

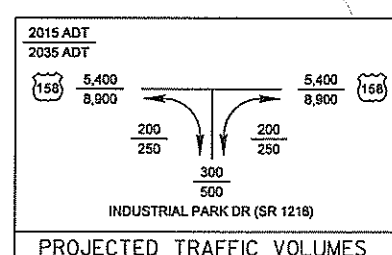
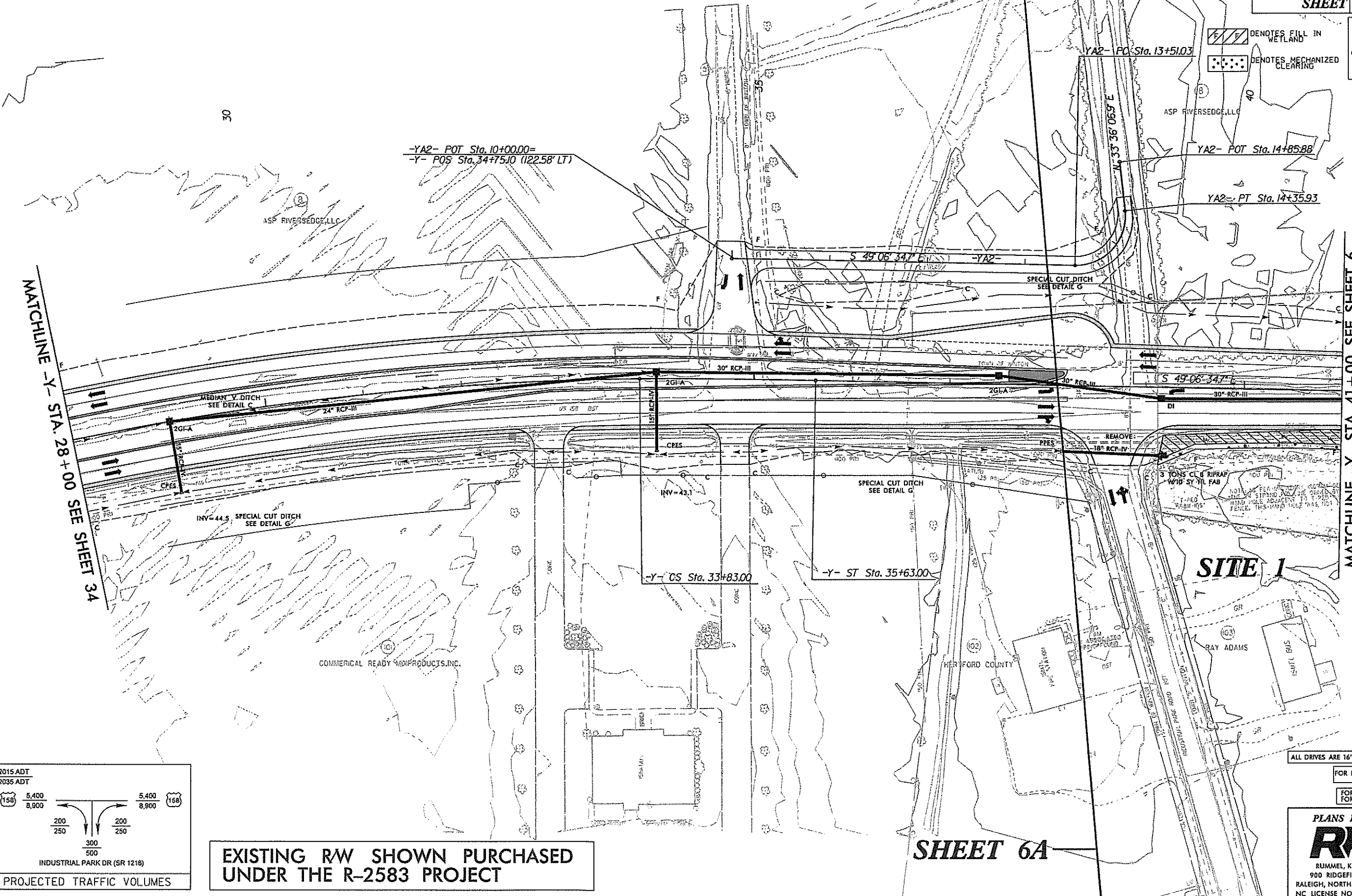


-Y- STA. 16+50 TO STA. 36+00



-Y- STA. 27+00 TO STA. 39+00 RT  
-Y- STA. 35+00 TO STA. 41+00 LT

PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>35</i>
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
<div>PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION</div>		
<div>PERMIT DRAWING SHEET 11 OF 78</div>		



EXISTING RW SHOWN PURCHASED  
UNDER THE R-2583 PROJECT

SHEET 6A

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED  
FOR BULB DETAILS SEE SHEET 2H  
FOR -Y- PROFILE SEE SHT. 55  
FOR -YA2- PROFILE SEE SHT. 62

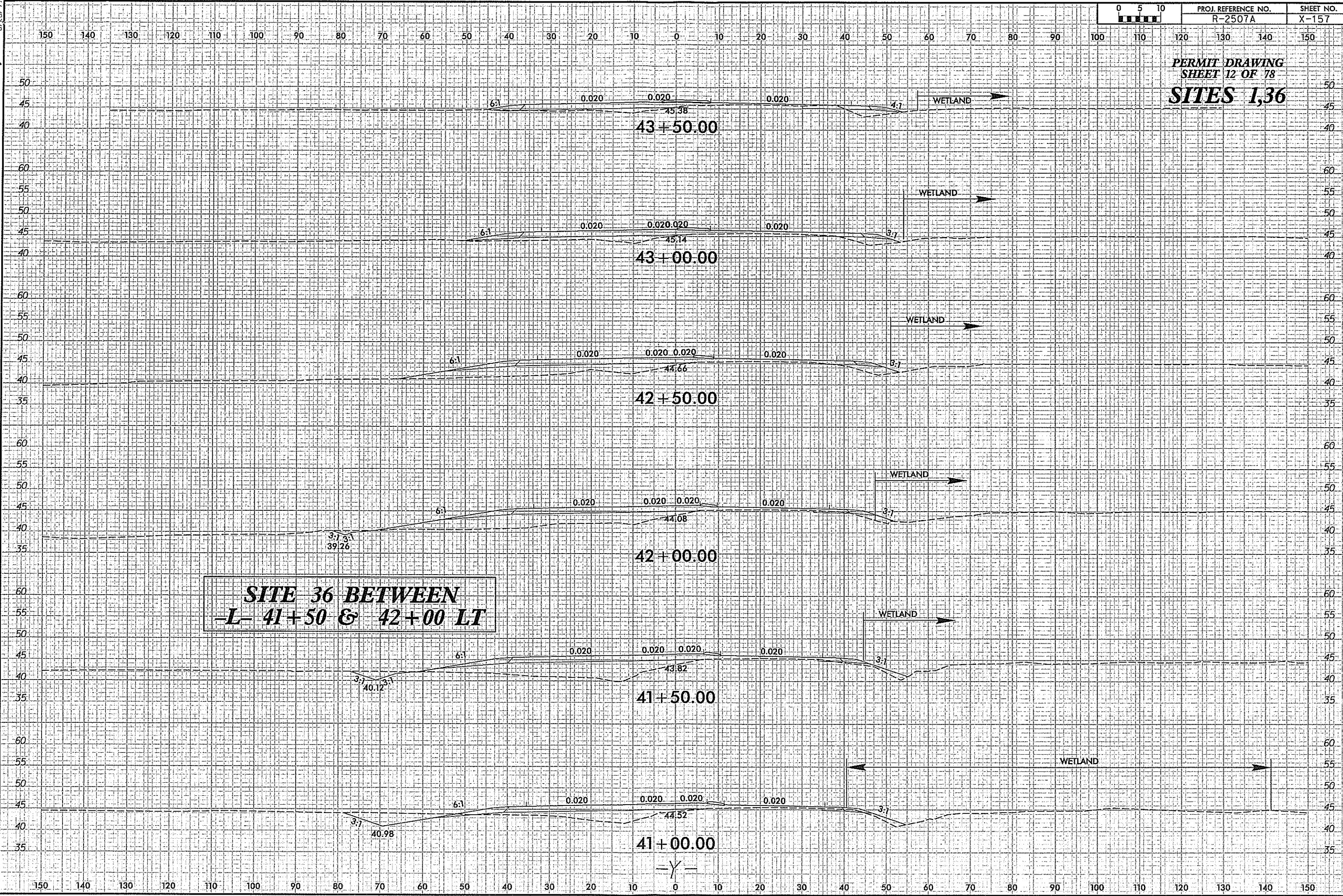
PLANS PREPARED BY :  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. P-0112 • (919) 878-9560

3/2/2002  
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8/23/99

PERMIT DRAWING  
SHEET 12 OF 78  
**SITES 1,36**



**SITE 36 BETWEEN  
-L- 41+50 & 42+00 LT**

3/2/2012  
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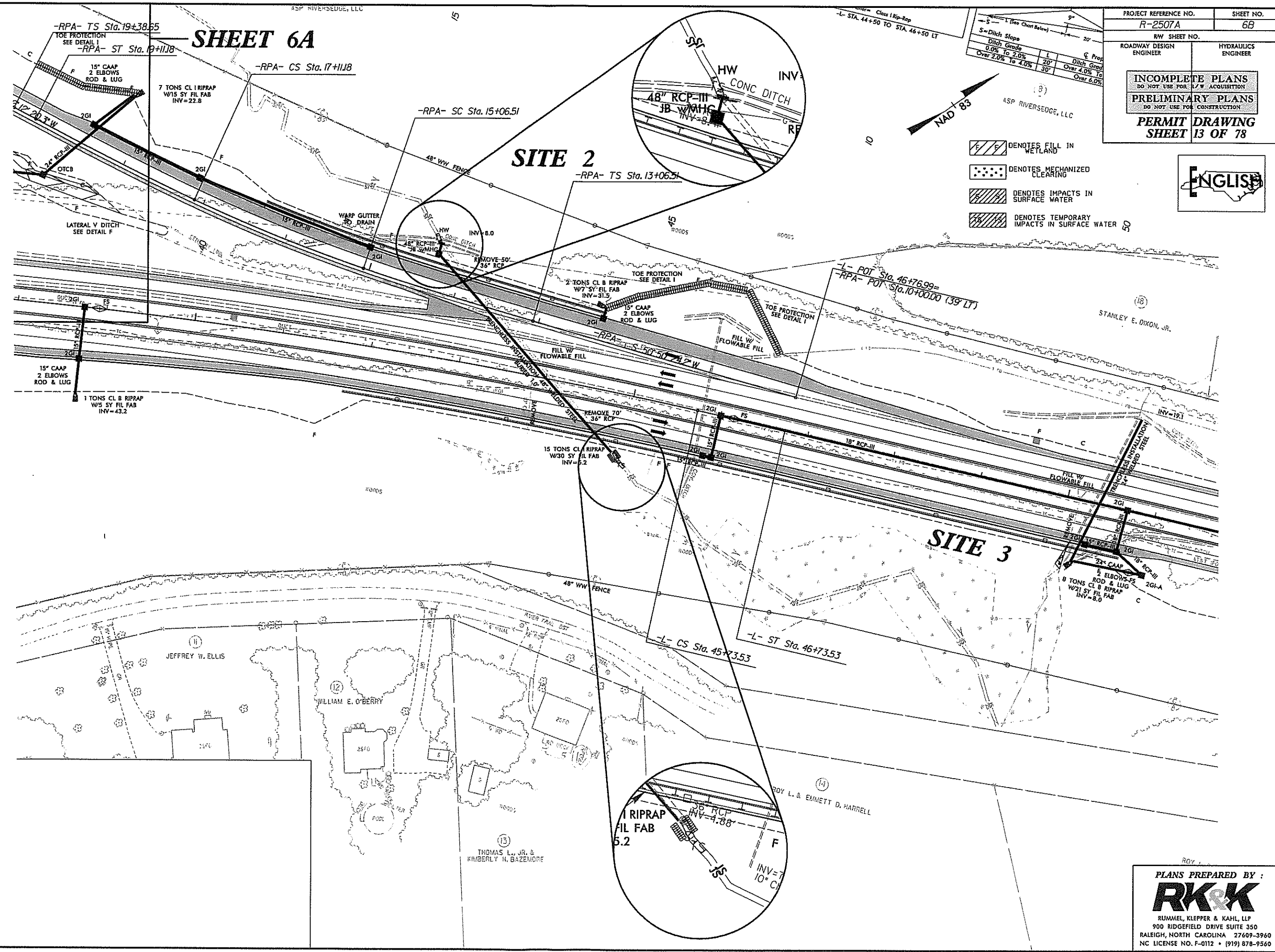
8/17/99

ASP RIVERSIDE, LLC

# SHEET 6A

## SITE 2

## SITE 3



PROJECT REFERENCE NO.	SHEET NO.
R-2507A	6B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT SHEET	DRAWING 13 OF 78



PLANS PREPARED BY :

**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

3/2/2002  
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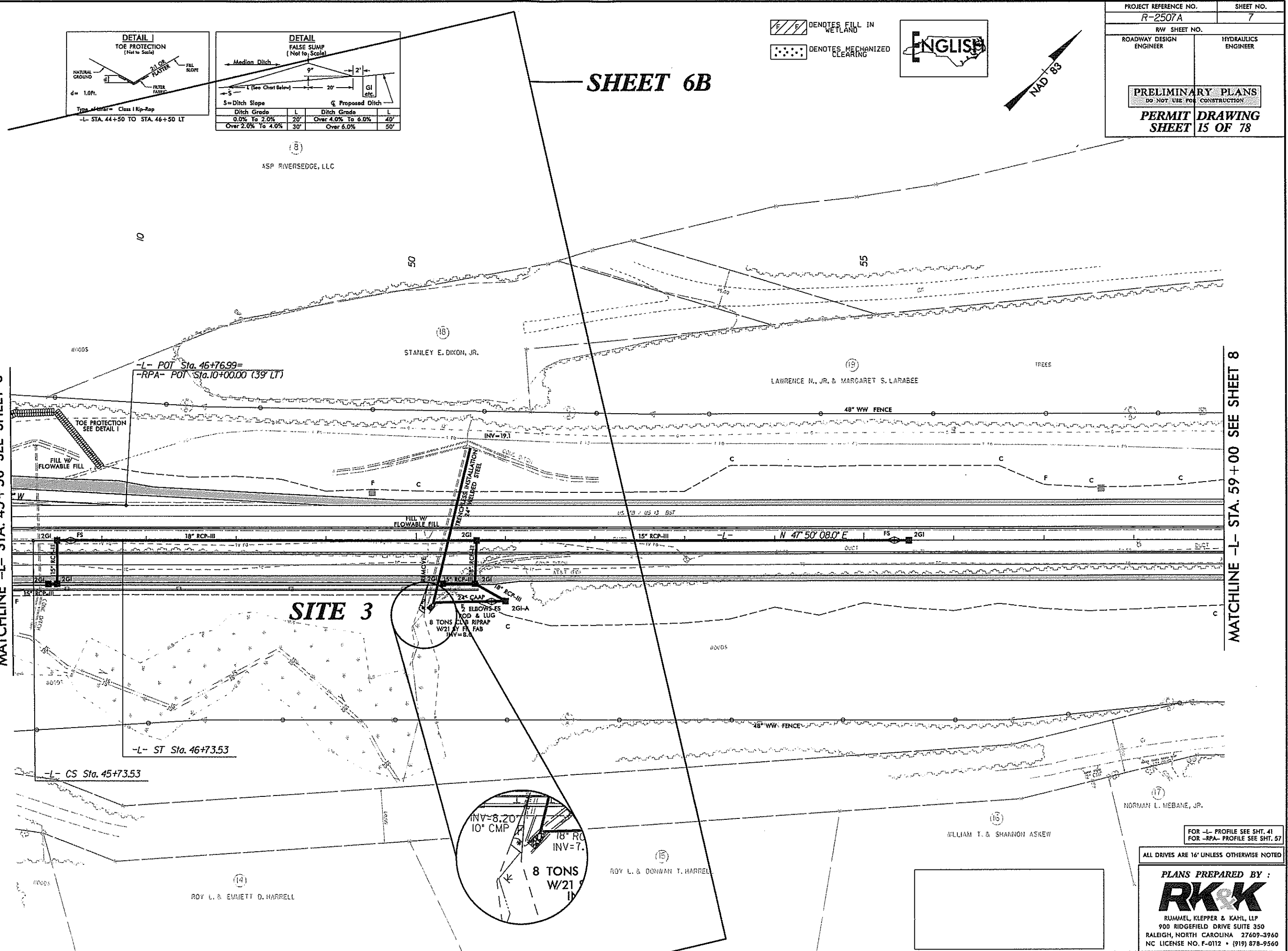




8/17/99

3/2/2012  
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MATCHLINE -L- STA. 45+50 SEE SHEET 6



# SHEET 6B

/// DENOTES FILL IN WETLAND  
... DENOTES MECHANIZED CLEARING



NAD 83

PROJECT REFERENCE NO. R-2507A	SHEET NO. 7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWING SHEET 15 OF 78	

ASP RIVERSIDE, LLC

STANLEY E. DIXON, JR.

LAWRENCE N., JR. & MARGARET S. LARABEE

TREES

(19)

48\"/>

INV=19.1

SITE 3

ROADS

48\"/>

NORMAN L. MEBANE, JR.

WILLIAM T. & SHANNON ASKEW

ROY L. & DONNAN T. HARRELL

ROY L. & EMMETT D. HARRELL

FOR -L- PROFILE SEE SHT. 41  
FOR -RPA- PROFILE SEE SHT. 57

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

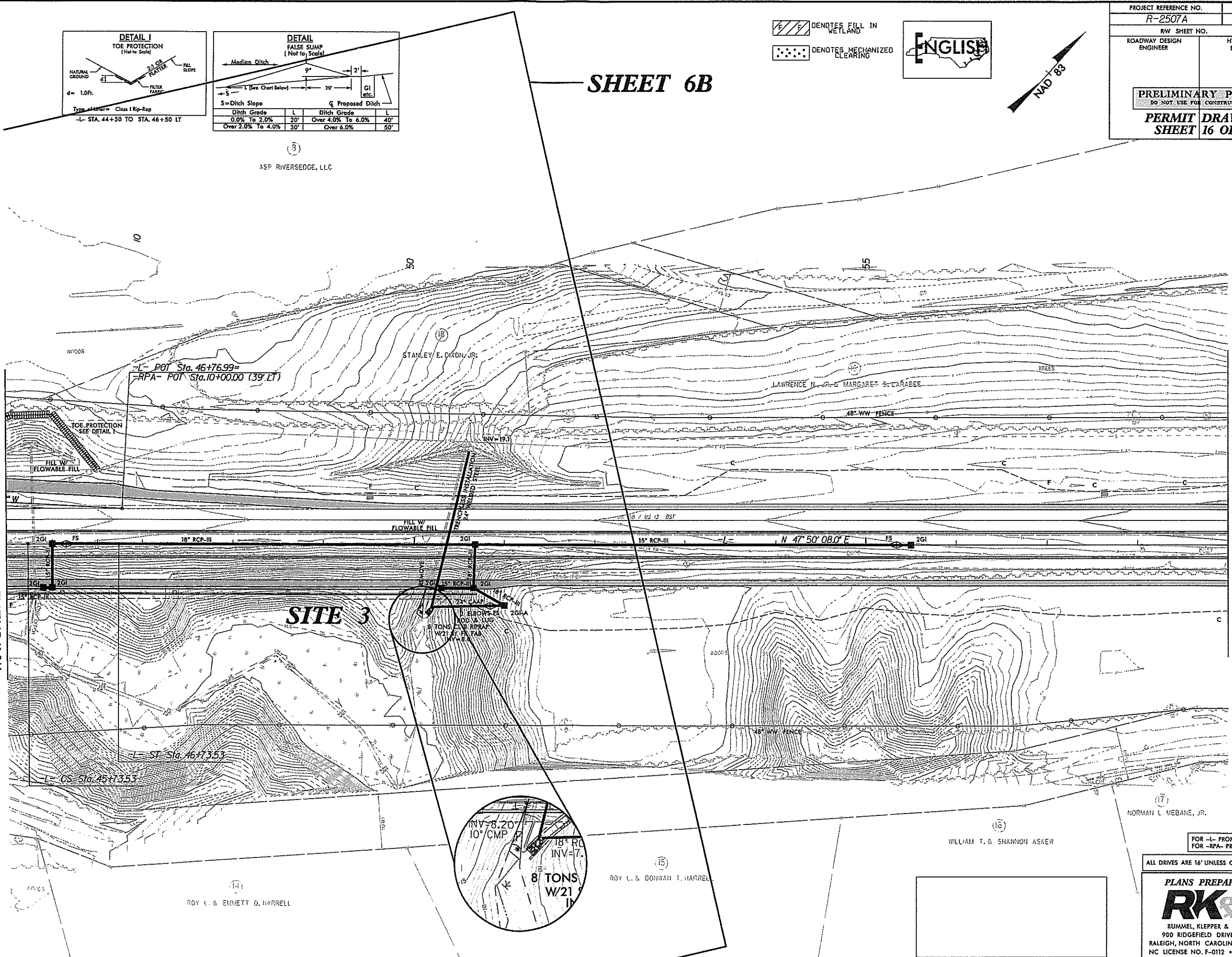
PLANS PREPARED BY :

**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560



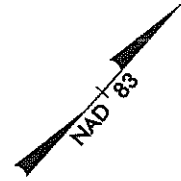
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MATCHLINE -L- STA. 45+50 SEE SHEET 6



# SHEET 6B

/// DENOTES FILL IN WETLAND  
... DENOTES MECHANIZED CLEARING



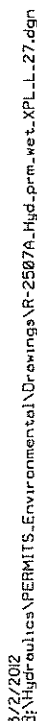
PROJECT REFERENCE NO. R-2507A	SHEET NO. 7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT SHEET	DRAWING 16 OF 78

ASP RIVERSIDE, LLC

MATCHLINE -L- STA. 59+00 SEE SHEET 8

FOR -L- PROFILE SEE SHT. 41  
FOR -RPA- PROFILE SEE SHT. 57  
ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED  
PLANS PREPARED BY :  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

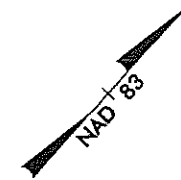
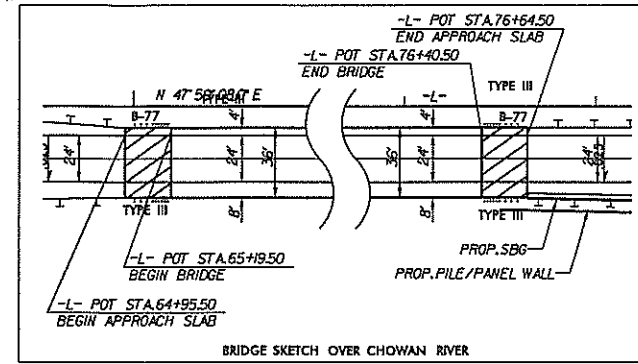
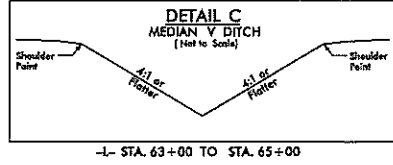
**PERMIT DRAWING**  
**SHEET 17 OF 78**  
**SITE 3**





8/17/99

ASP RIVERSIDE, LLC



CHOWAN RIVER

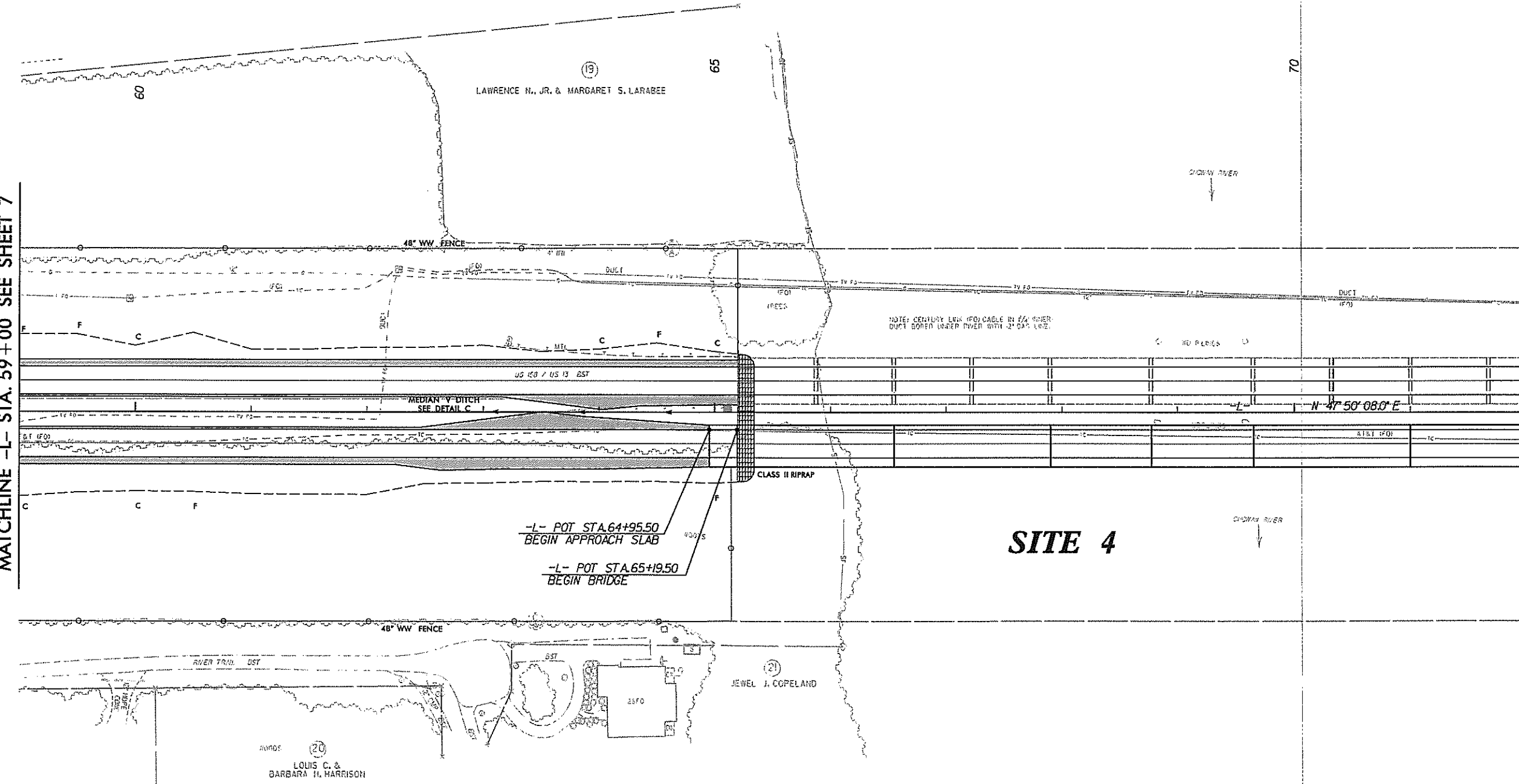
DENOTES IMPACTS IN SURFACE WATER DUE TO BRIDGE PIERS



PROJECT REFERENCE NO.	SHEET NO.
R-2507A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWING SHEET 18 OF 78	

MATCHLINE -L- STA. 59+00 SEE SHEET 7

MATCHLINE -L- STA. 72+00 SEE SHEET 9



**SITE 4**

3/2/2012  
R:\Hydro\lics\PERMITS\Environmental\Drawings\R2507A\_Hyd.prm\_wet.psh08.dgn

FOR -L- PROFILE SEE SHTS. 41 & 42

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

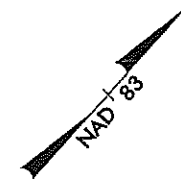
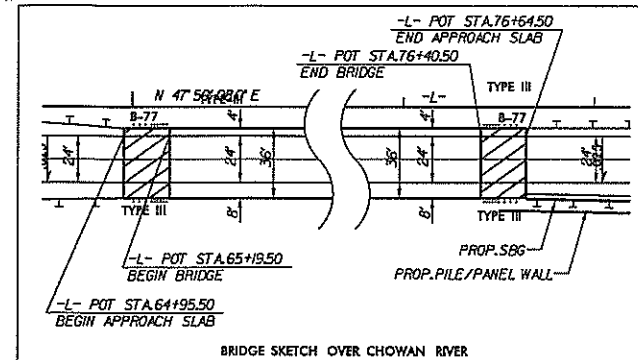
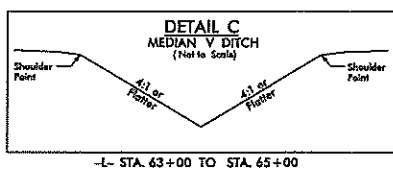
PLANS PREPARED BY :

**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

8/17/99

ASP RIVERSIDE, LLC



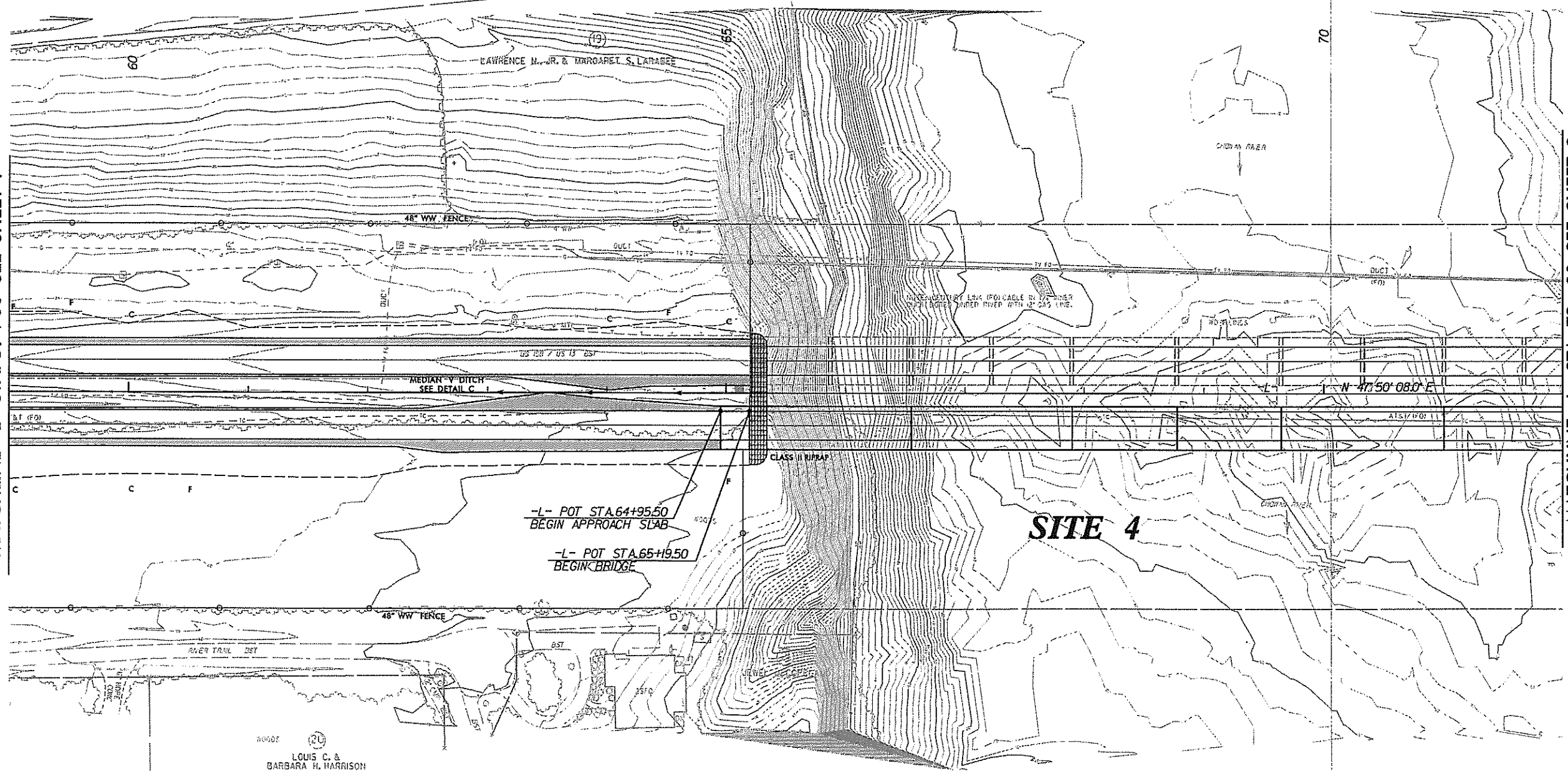
GATES COUNTY  
HARTFORD COUNTY

PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>8</i>	
RWY SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div><b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION</div>			
<b>PERMIT</b>		<b>DRAWING</b>	
<b>SHEET</b>		<b>19 OF 78</b>	

DENOTES IMPACTS IN  
SURFACE WATER  
DUE TO BRIDGE  
PIERS



MATCHLINE -L- STA. 59+00 SEE SHEET 7



MATCHLINE -L- STA. 72+00 SEE SHEET 9

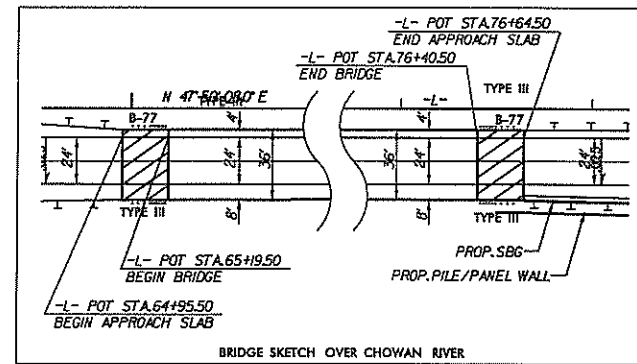
3/2/2012  
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WOODS  
LOUIS C. &  
BARBARA H. HARRISON

FOR -L- PROFILE SEE SHTS. 41 & 42  
ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED  
**PLANS PREPARED BY :**  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560



8/17/99



DETAIL  
FALSE SUMP  
(Not to Scale)

Ditch Grade	Ditch Width
0.0% To 2.0%	20'
Over 2.0% To 4.0%	30'
Over 4.0% To 6.0%	40'
Over 6.0%	50'

■ DENOTES FILL IN WETLAND  
■ DENOTES MECHANIZED CLEARING  
■ DENOTES IMPACTS IN SURFACE WATER DUE TO BRIDGE PIERS



PROJECT REFERENCE NO. R-2507A	SHEET NO. 9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT SHEET	DRAWING 20 OF 78

MATCHLINE -L- STA. 72 + 00 SEE SHEET 8

**SITE 4**

-L- POT STA 76+40.50  
END BRIDGE

-L- POT STA 76+64.50  
END APPROACH SLAB

**SITE 5**

MATCHLINE -L- STA. 85 + 00 SEE SHEET 10

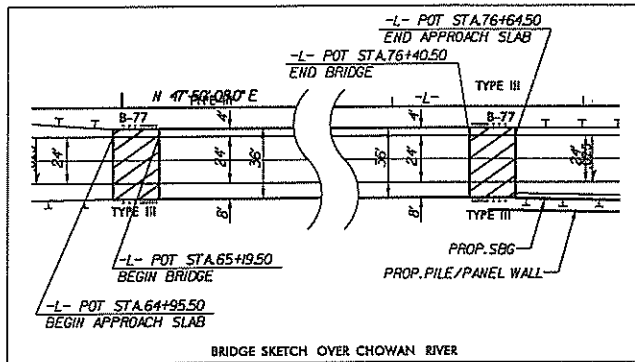
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FOR -L- PROFILE SEE SHT. 42  
ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

PLANS PREPARED BY :  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

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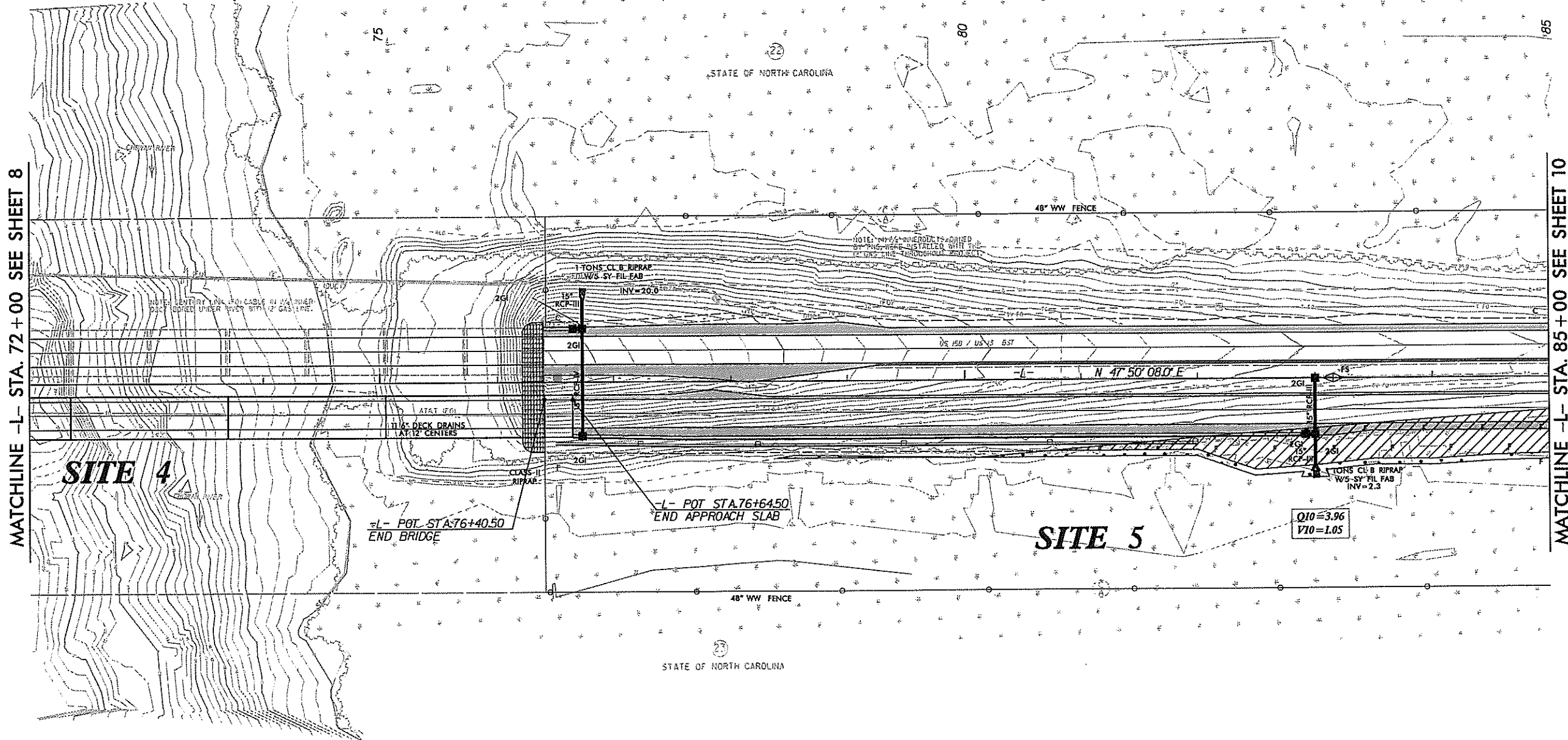
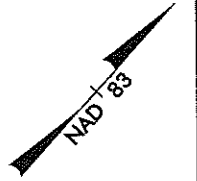
DETAIL  
FALSE SUMP  
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER DUE TO BRIDGE PIERS



PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO. <b>9</b>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			
<b>PERMIT SHEET</b>		<b>DRAWING 21 OF 78</b>	



FOR -L- PROFILE SEE SHT. 42

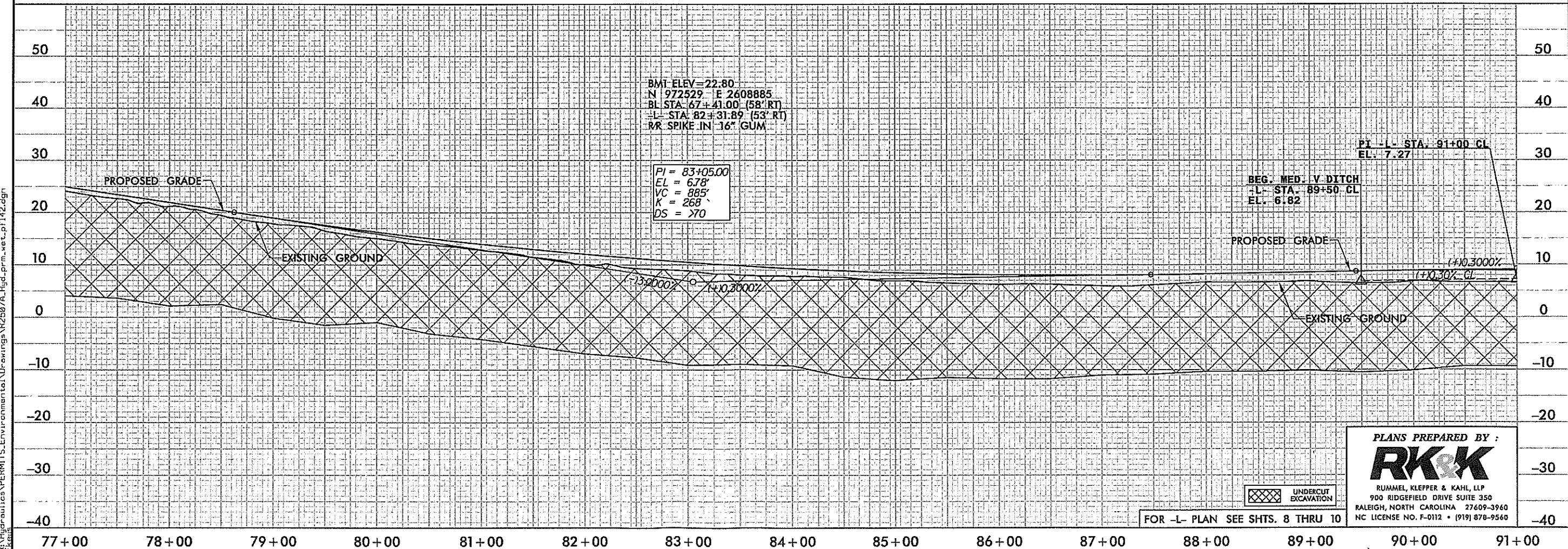
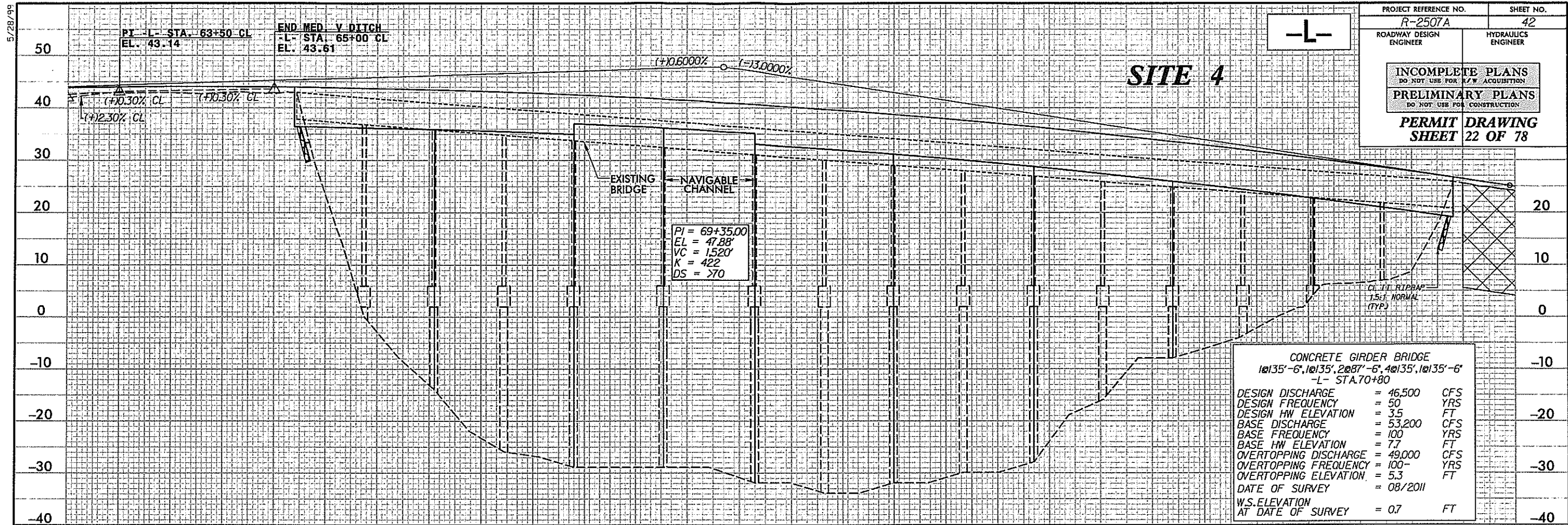
ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

PLANS PREPARED BY :

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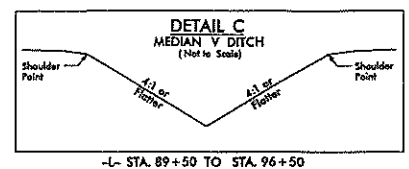
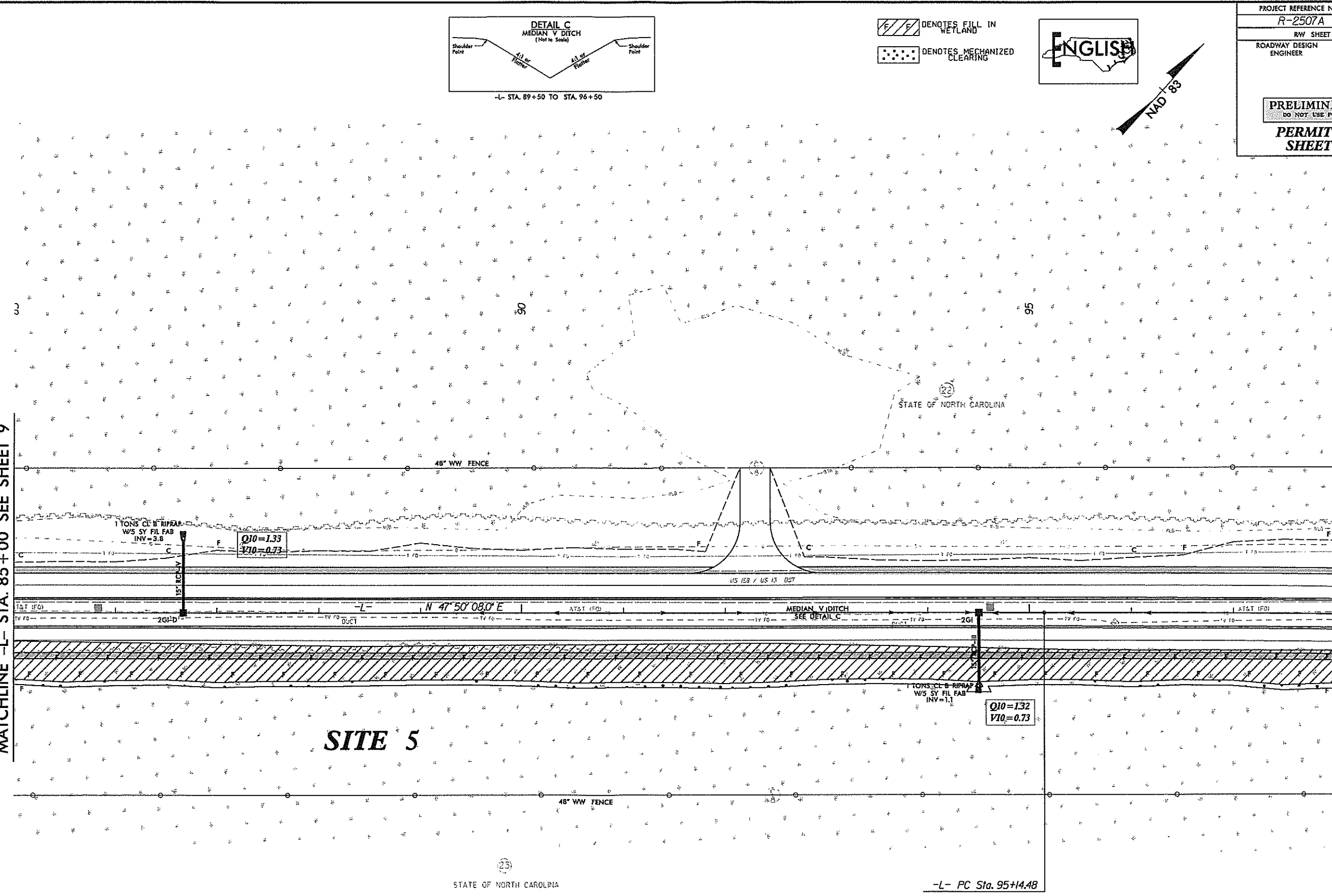
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MATCHLINE -L- STA. 85+00 SEE SHEET 9

MATCHLINE -L- STA. 98+00 SEE SHEET 11



DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING



PROJECT REFERENCE NO. R-2507A	SHEET NO. 10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWING SHEET 23 OF 78	

SITE 5

STATE OF NORTH CAROLINA

-L- PC Sta. 95+14.48

FOR -L- PROFILE SEE SHTS. 42 & 43

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

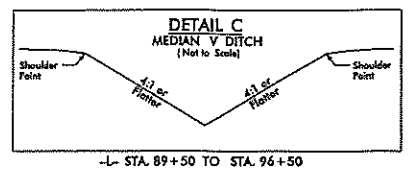
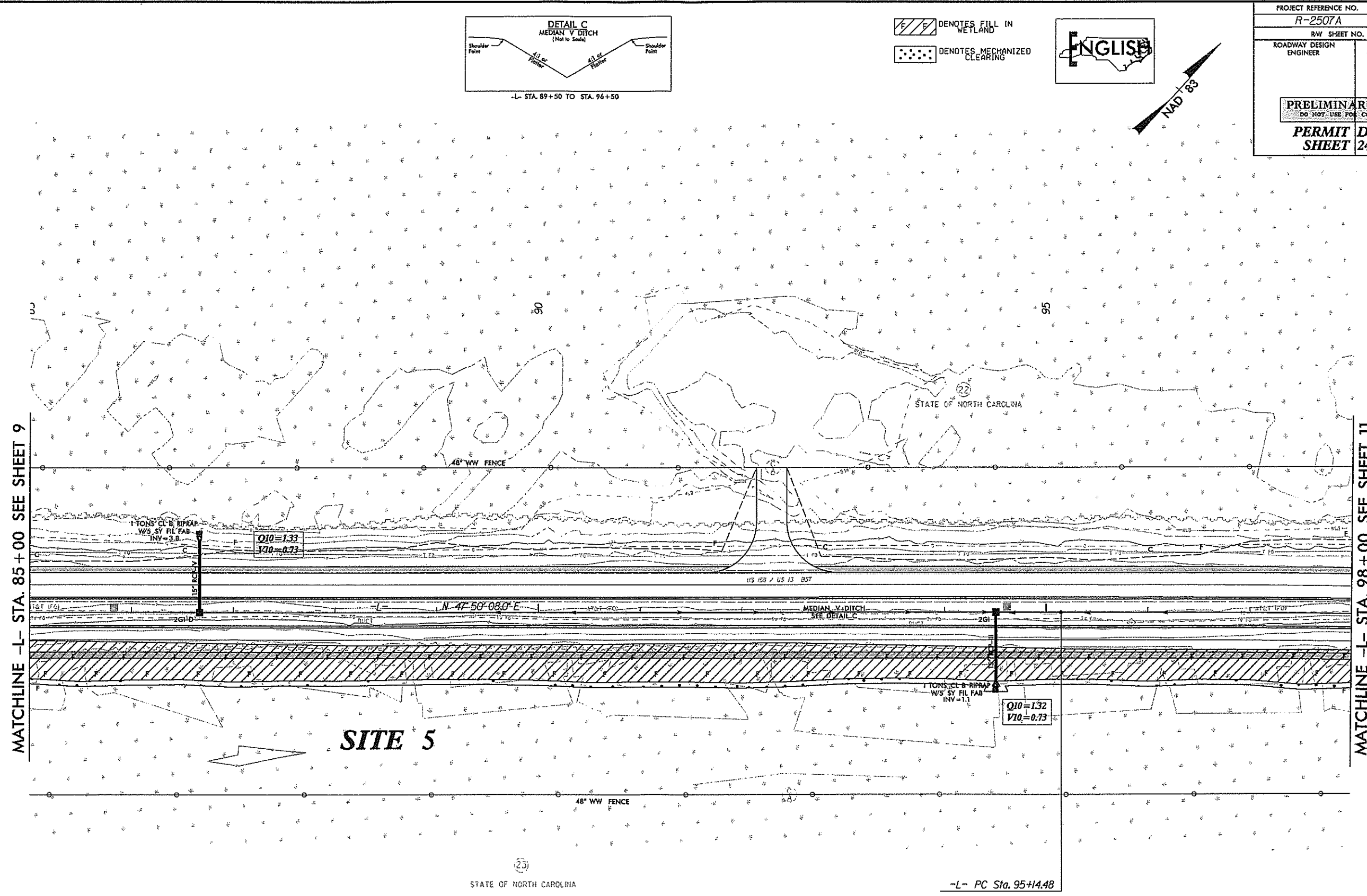
PLANS PREPARED BY :

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3/2/2012  
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DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING



PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>10</i>			
RW SHEET NO.					
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER			
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<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION					
<b>PERMIT SHEET</b>		<b>DRAWING 24 OF 78</b>			

FOR -L- PROFILE SEE SHTS. 42 & 43

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

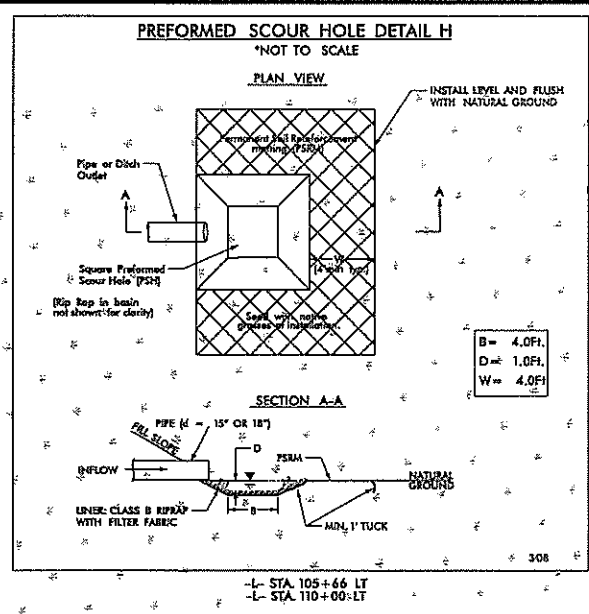
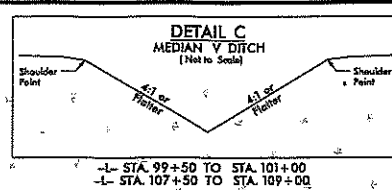
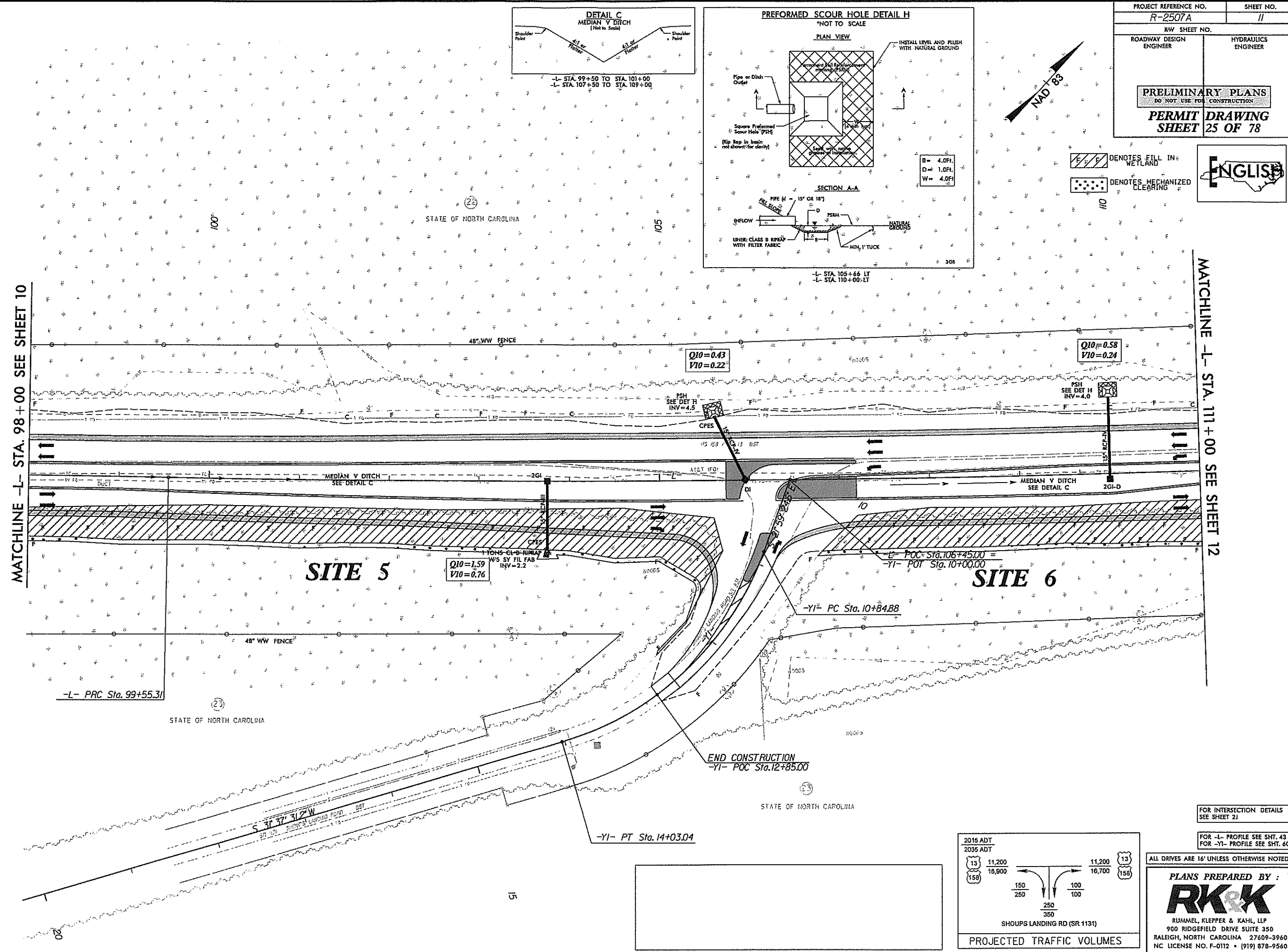
PLANS PREPARED BY :

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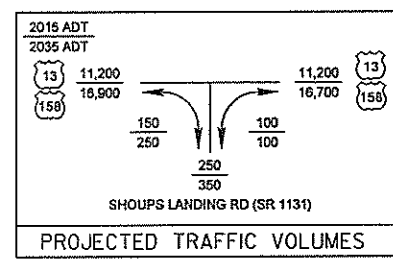


DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

110

PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>11</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>PRELIMINARY PLANS</div> <div>DO NOT USE FOR CONSTRUCTION</div>			
<b>PERMIT SHEET</b>		<b>DRAWING 25 OF 78</b>	



FOR INTERSECTION DETAILS  
SEE SHEET 21

FOR -L- PROFILE SEE SHT. 43  
FOR -YI- PROFILE SEE SHT. 60

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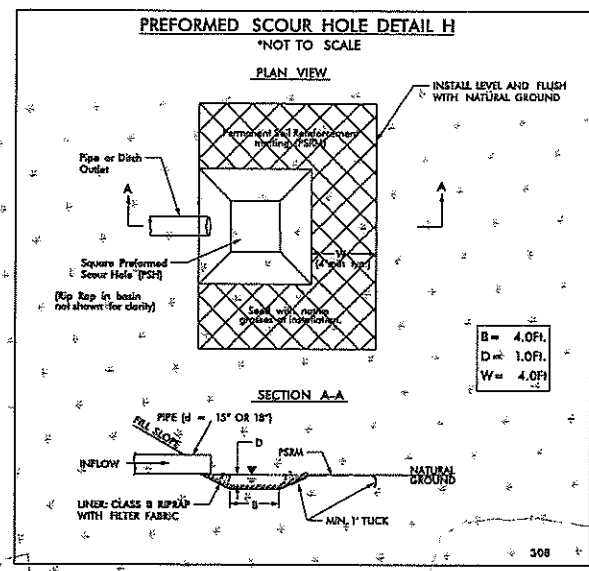
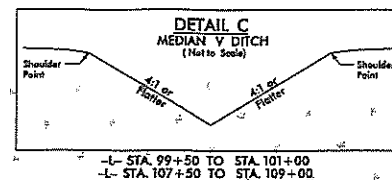
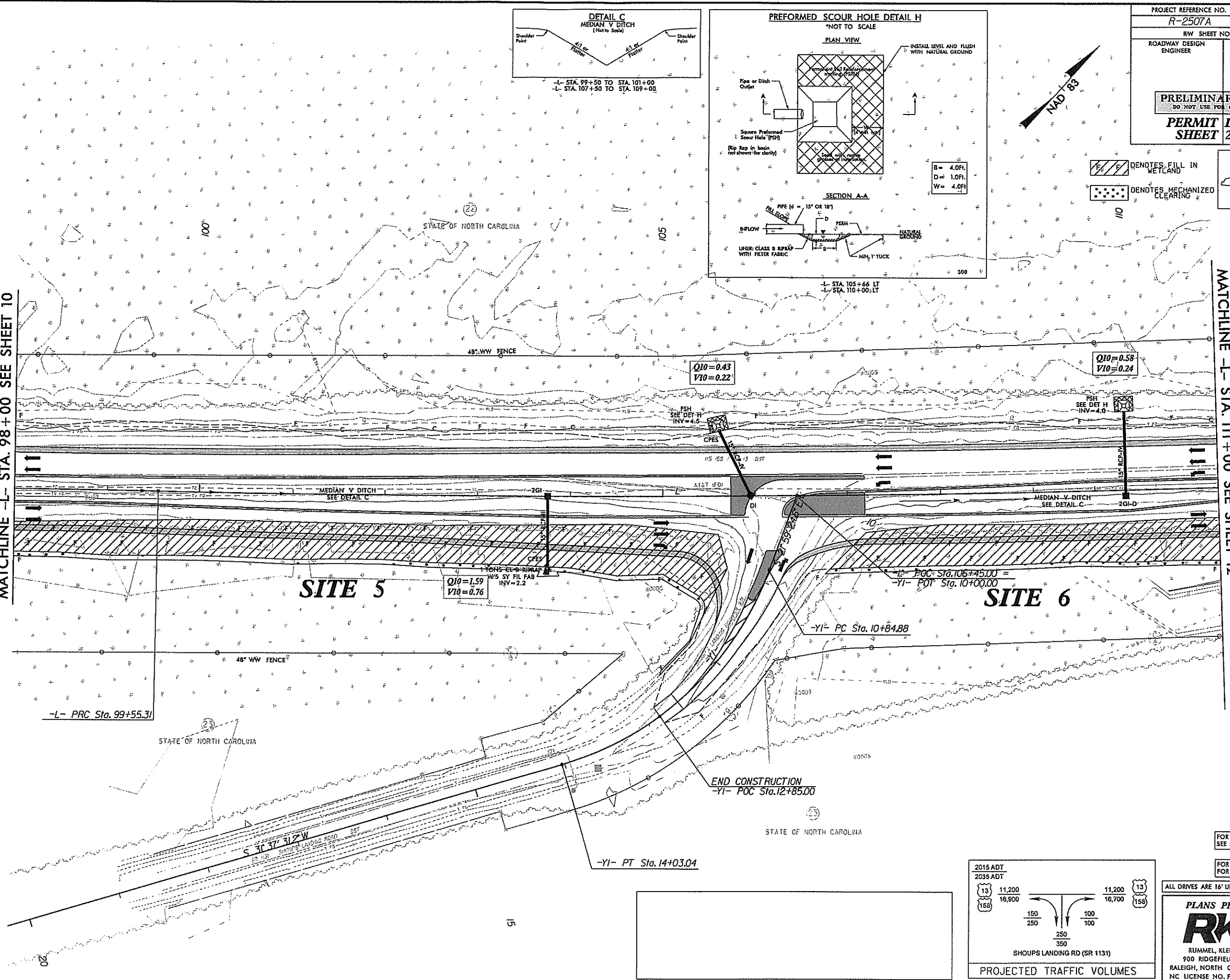


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MATCHLINE -L- STA. 98+00 SEE SHEET 10

MATCHLINE -L- STA. 111+00 SEE SHEET 12



EC DENOTES FILL IN WETLAND  
MC DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO.  
R-2507A

SHEET NO.  
11

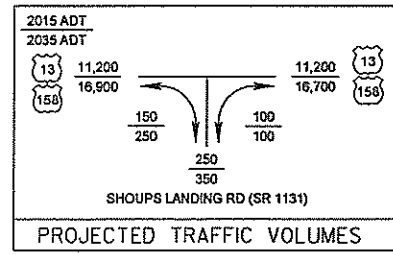
RW SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING**  
SHEET 26 OF 78



FOR INTERSECTION DETAILS  
SEE SHEET 21

FOR -L- PROFILE SEE SHT. 43  
FOR -YI- PROFILE SEE SHT. 60

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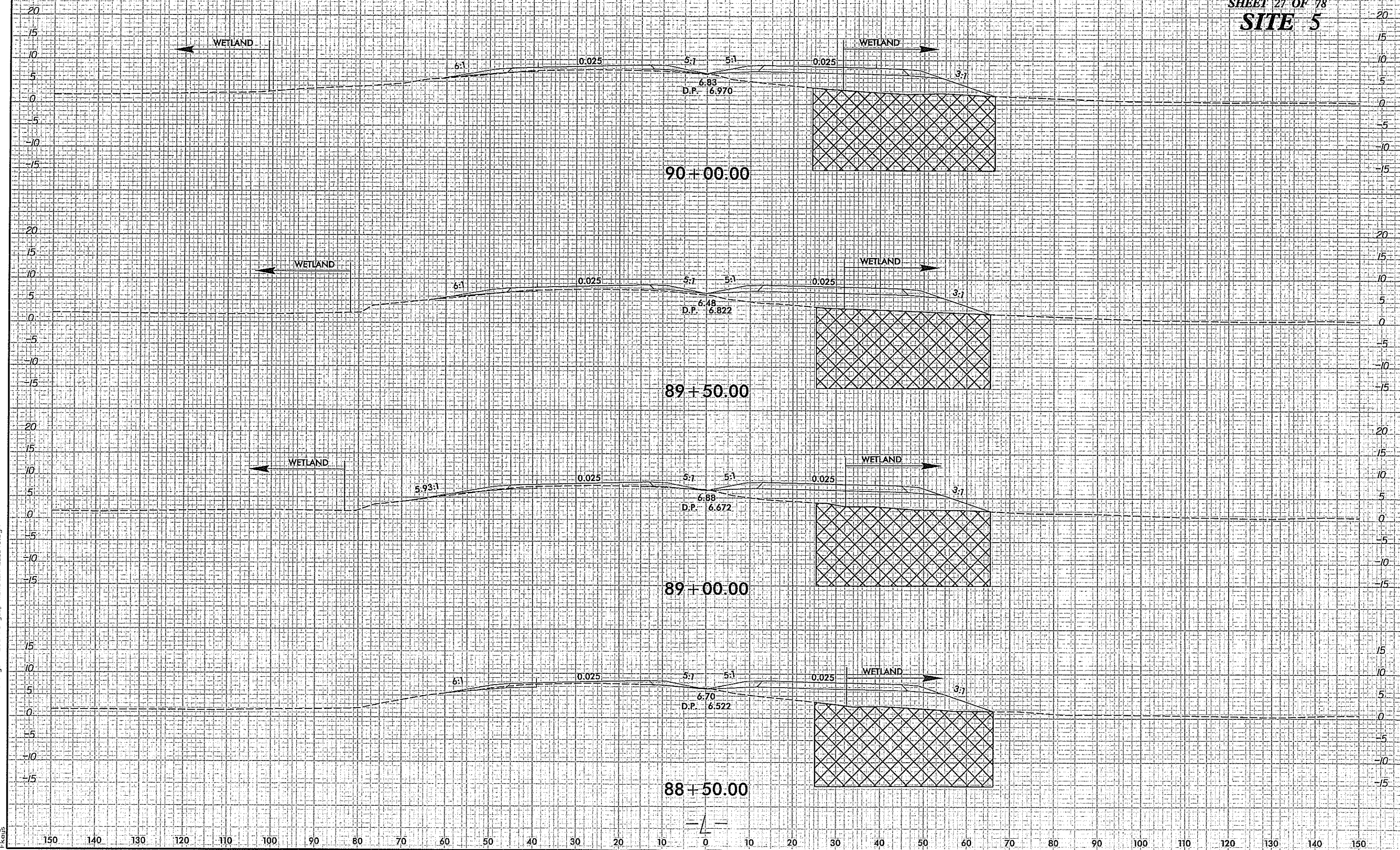
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PROJ. REFERENCE NO.  
R-2507A

SHEET NO.  
X-48

PERMIT DRAWING  
SHEET 27 OF 78  
**SITE 5**



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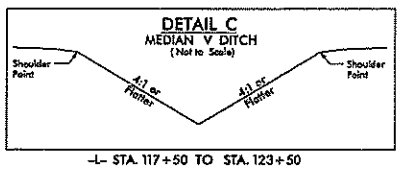
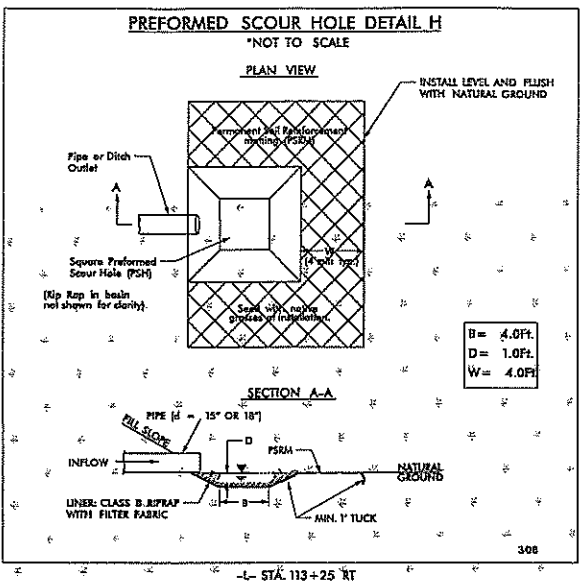
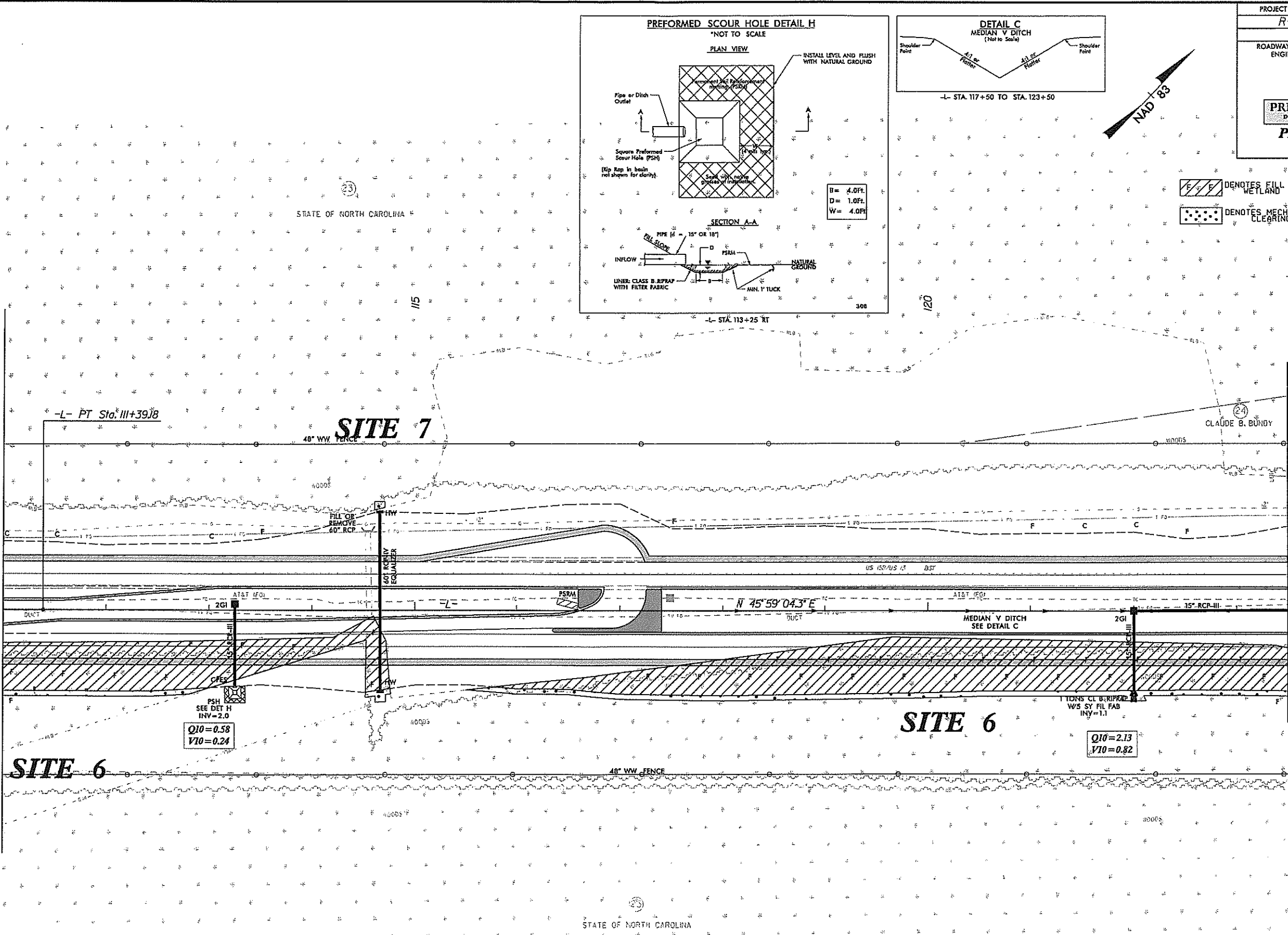


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MATCHLINE -L- STA. 111 + 00 SEE SHEET 11

MATCHLINE -L- STA. 123 + 50 SEE SHEET 13



/// DENOTES FILL IN WETLAND

□ DENOTES MECHANIZED CLEARING



PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>12</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div><div>PRELIMINARY PLANS</div><div>DO NOT USE FOR CONSTRUCTION</div></div>			
<b>PERMIT SHEET</b>		<b>DRAWING 28 OF 78</b>	

FOR BULB DETAIL SEE SHEET 2H

FOR -L- PROFILE SEE SHTS. 43 & 44

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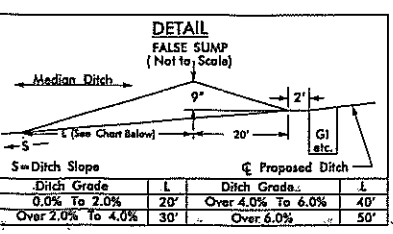
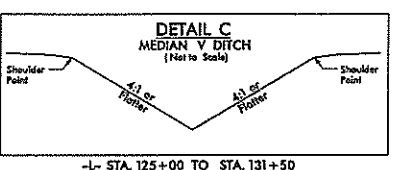
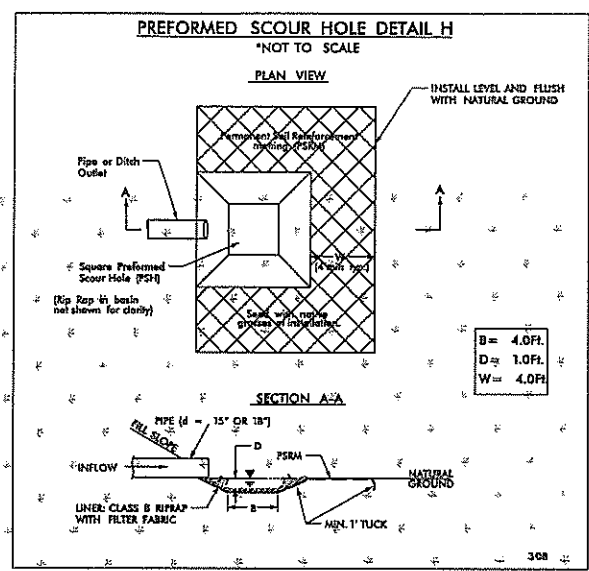
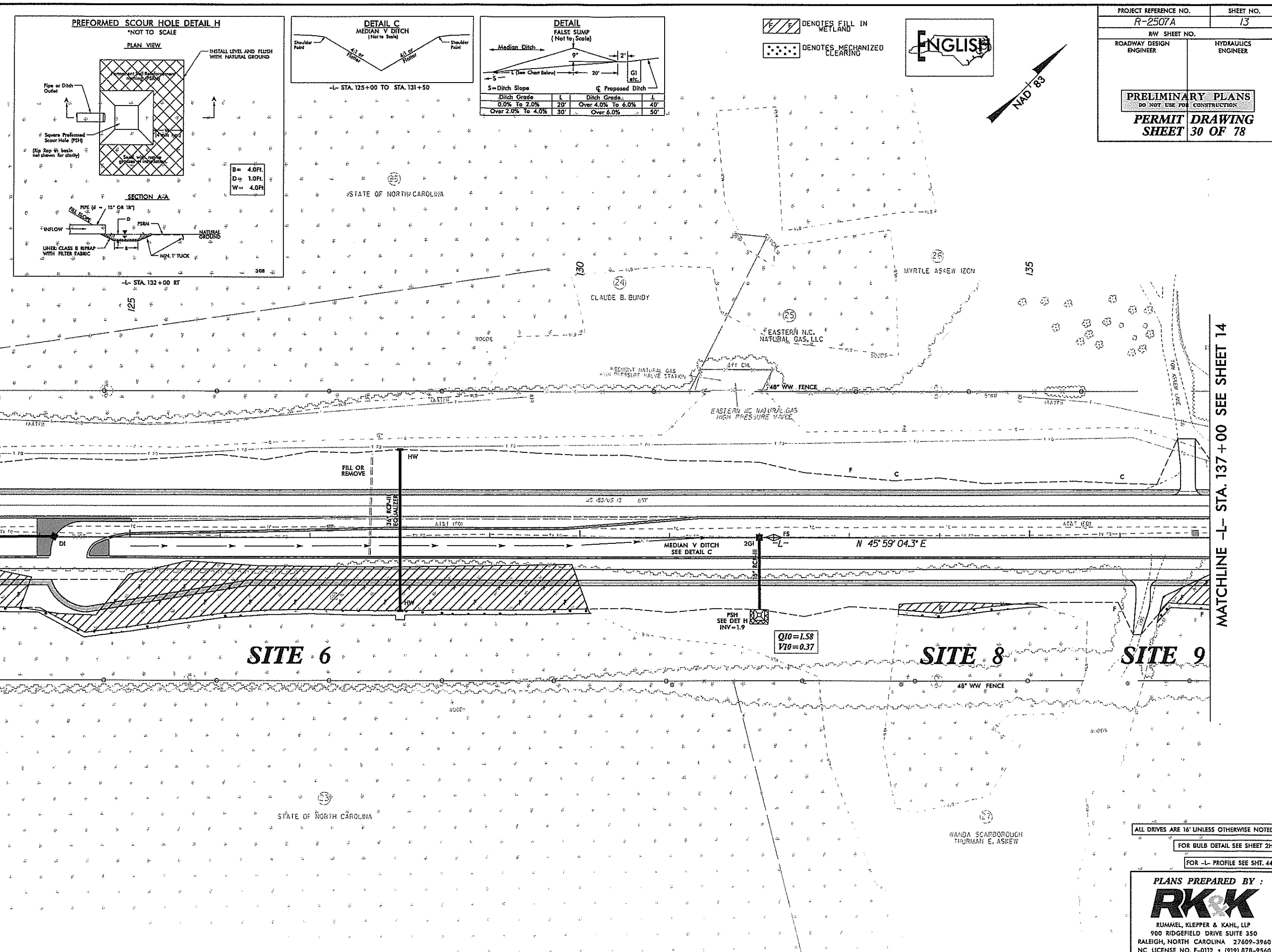


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MATCHLINE -L- STA. 123+50 SEE SHEET 12

MATCHLINE -L- STA. 137+00 SEE SHEET 14



/// DENOTES FILL IN WETLAND

.... DENOTES MECHANIZED CLEARING



PROJECT REFERENCE NO. R-2507A		SHEET NO. 13	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING**  
SHEET 30 OF 78

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULB DETAIL SEE SHEET 2H

FOR -L- PROFILE SEE SHT. 44

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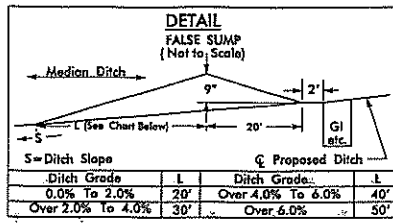
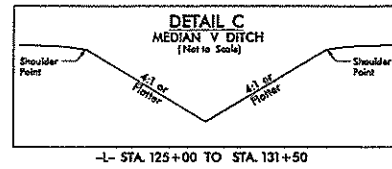
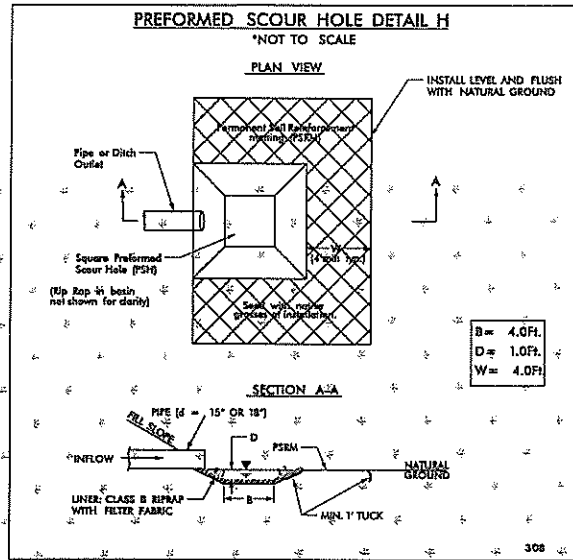
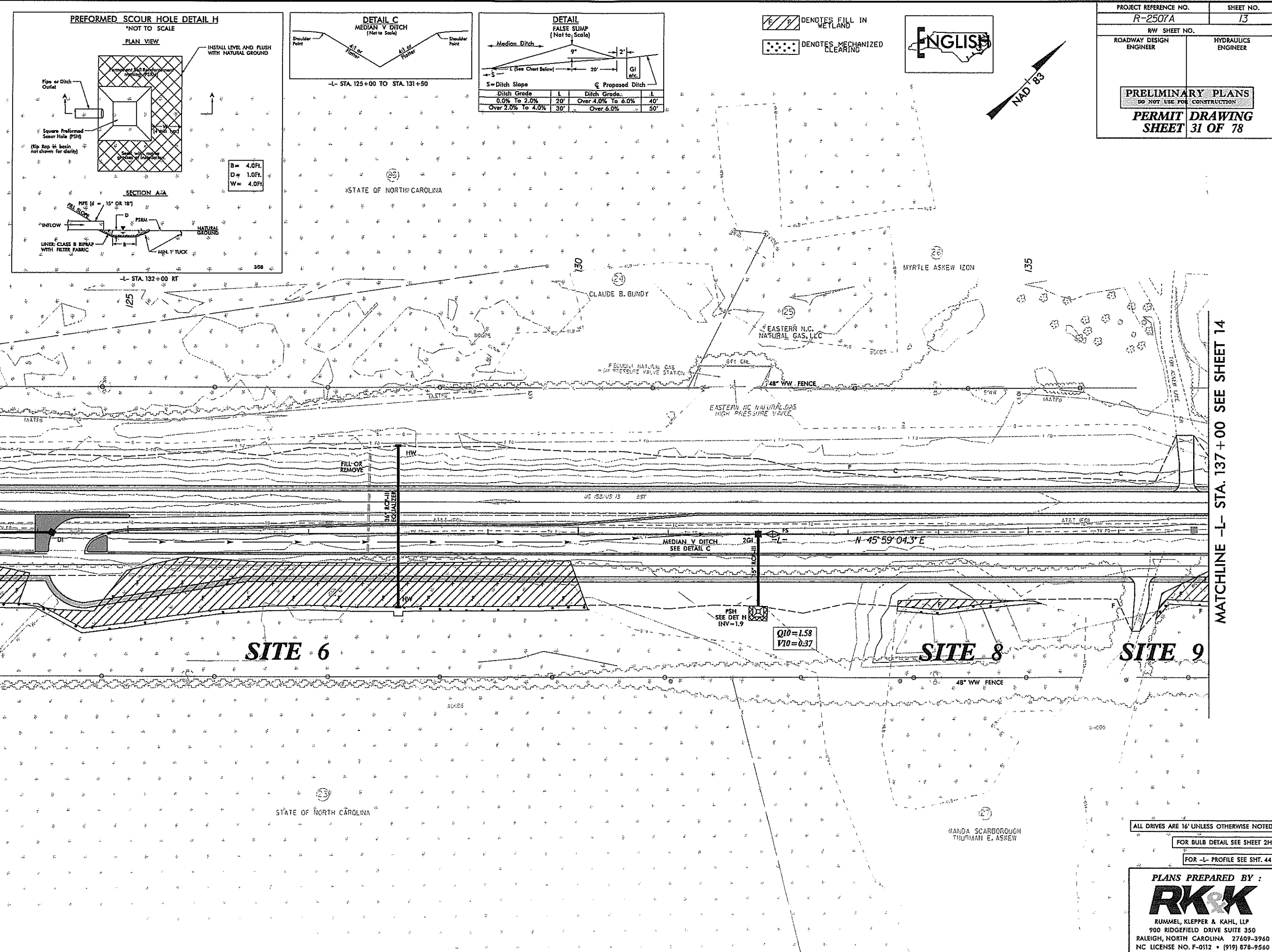
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MATCHLINE -L- STA. 123 + 50 SEE SHEET 12

MATCHLINE -L- STA. 137 + 00 SEE SHEET 14



6/8 DENOTES FILL IN WETLAND

6/8 DENOTES MECHANIZED CLEARING



**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING**  
**SHEET 31 OF 78**

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULB DETAIL SEE SHEET 2H

FOR -L- PROFILE SEE SHT. 44

**PLANS PREPARED BY :**

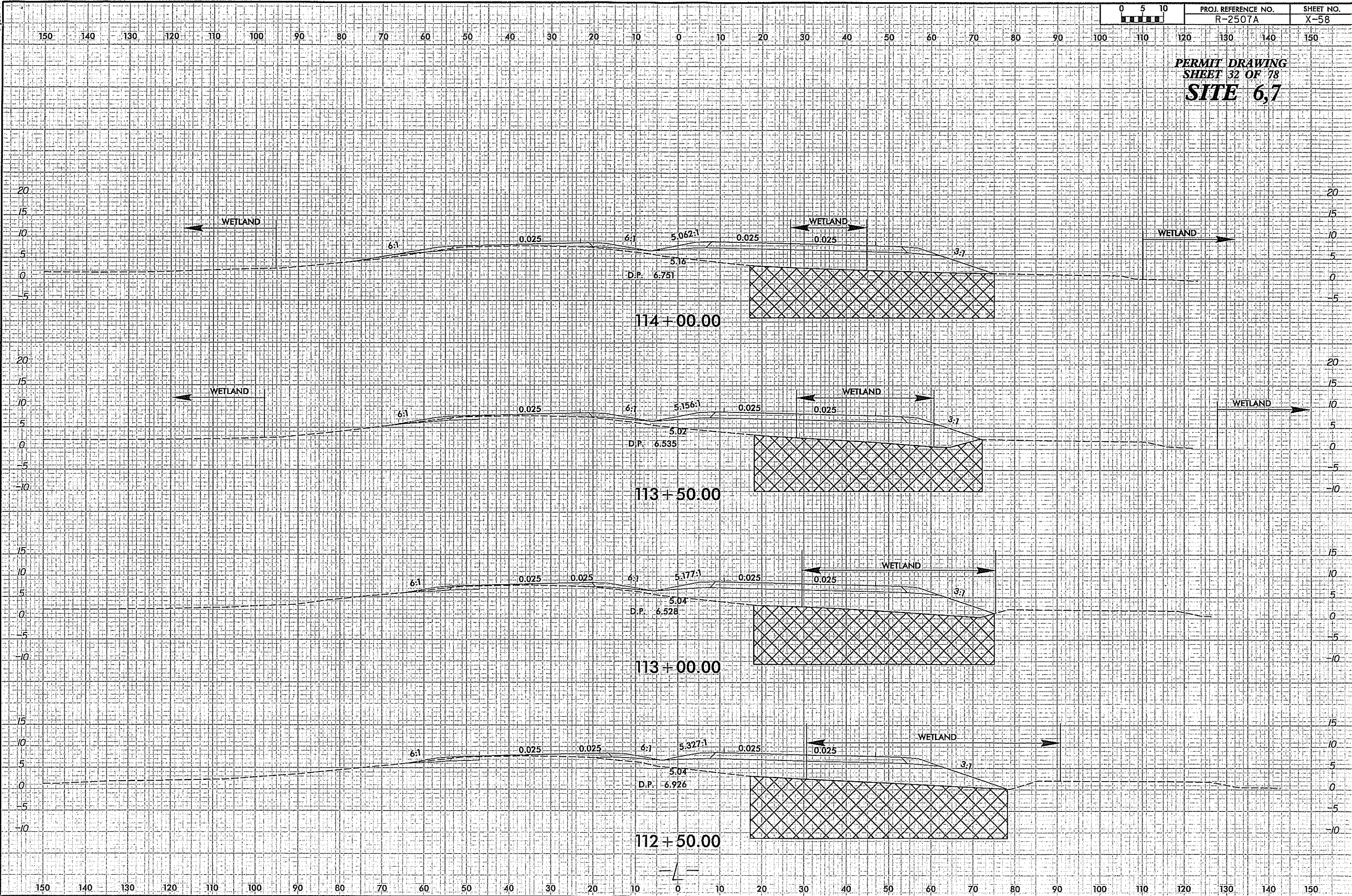
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PERMIT DRAWING  
SHEET 32 OF 78  
**SITE 6,7**

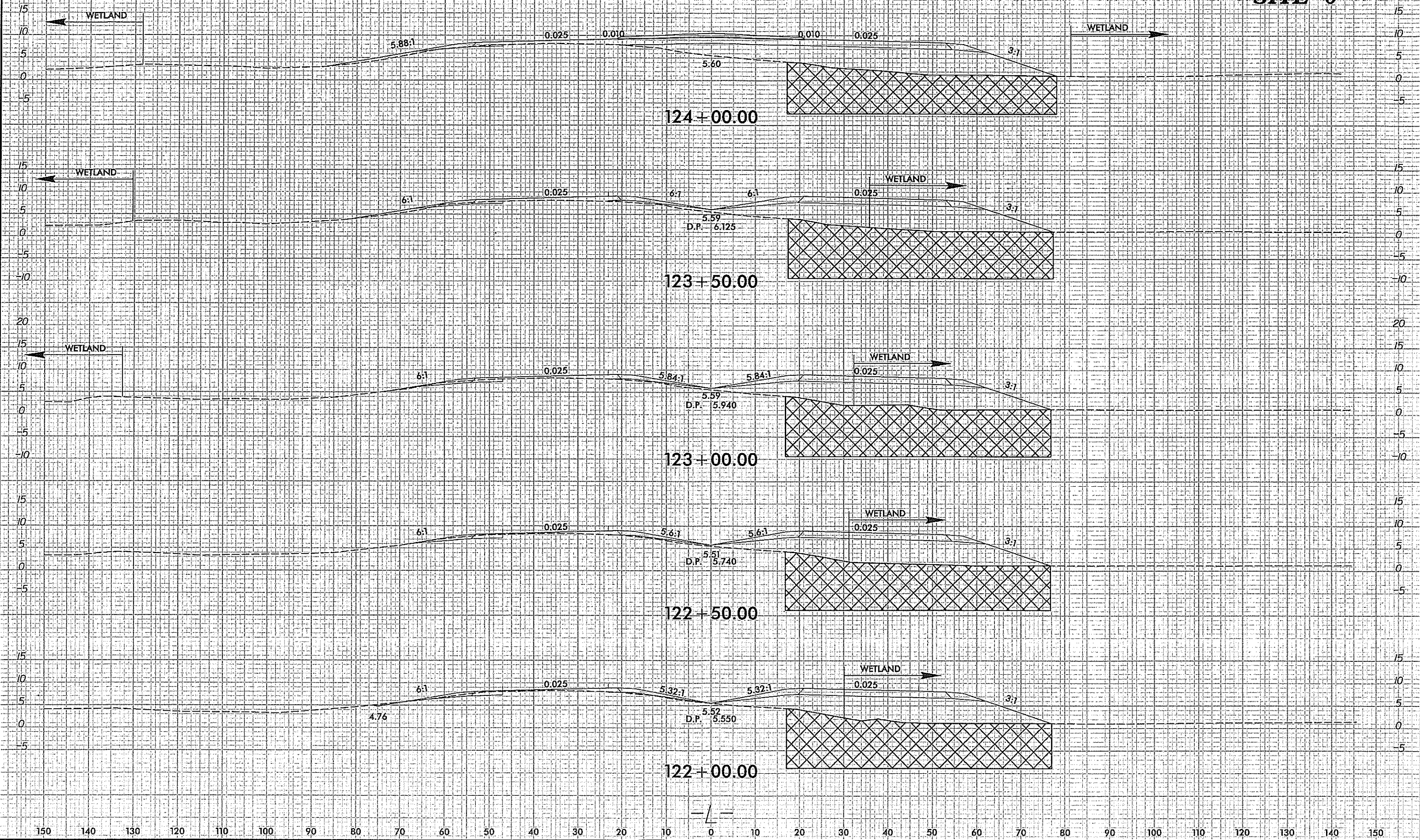




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R-2507A	X-62

PERMIT DRAWING  
SHEET 33 OF 78  
**SITE 6**



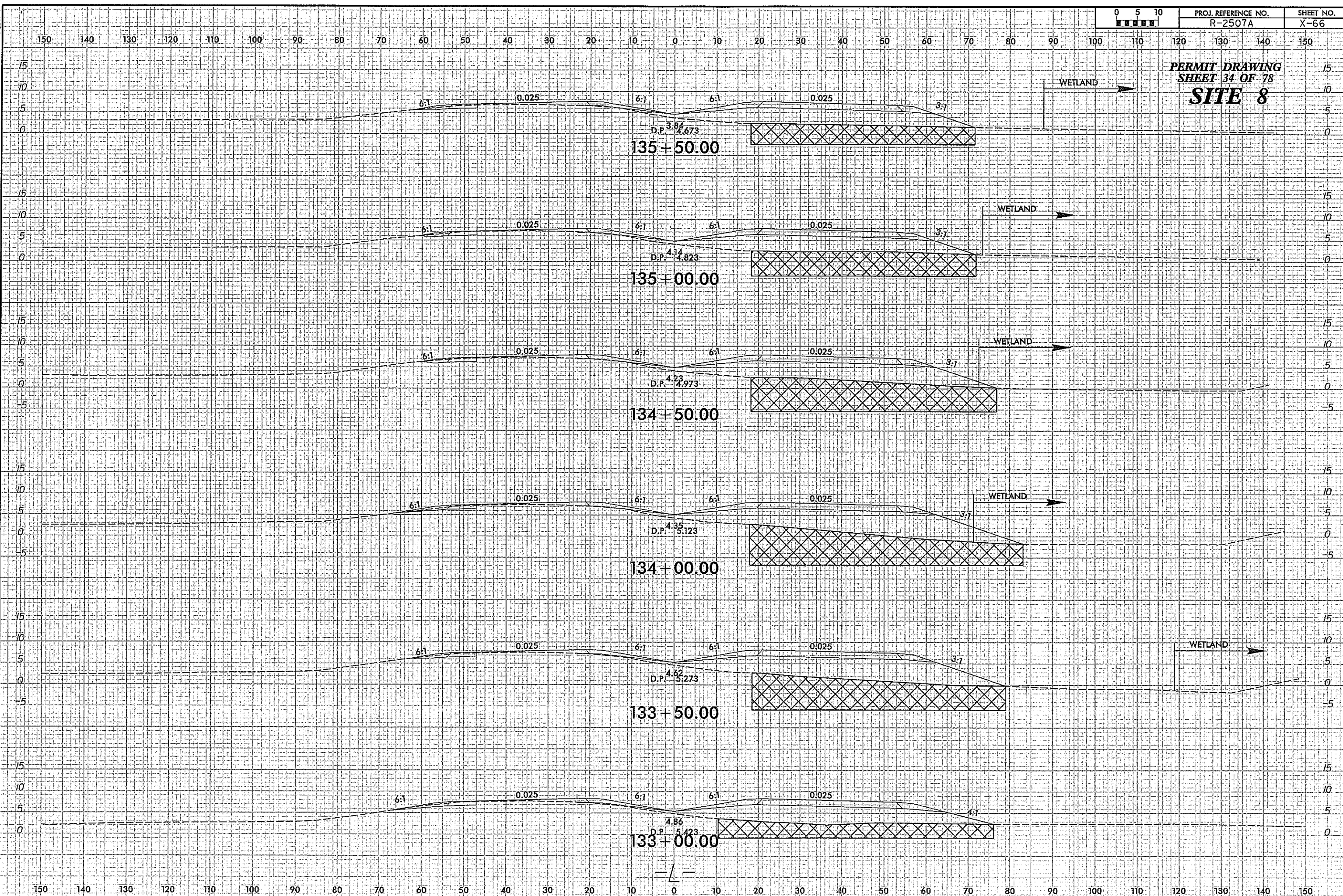


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R-2507A	X-66

PERMIT DRAWING  
SHEET 34 OF 78  
**SITE 8**



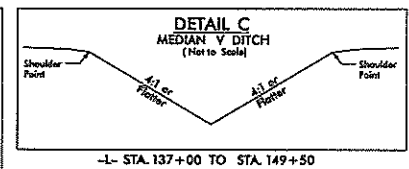
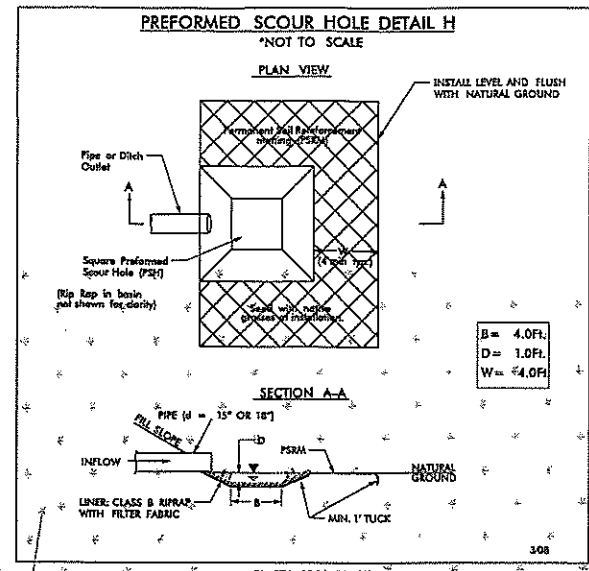
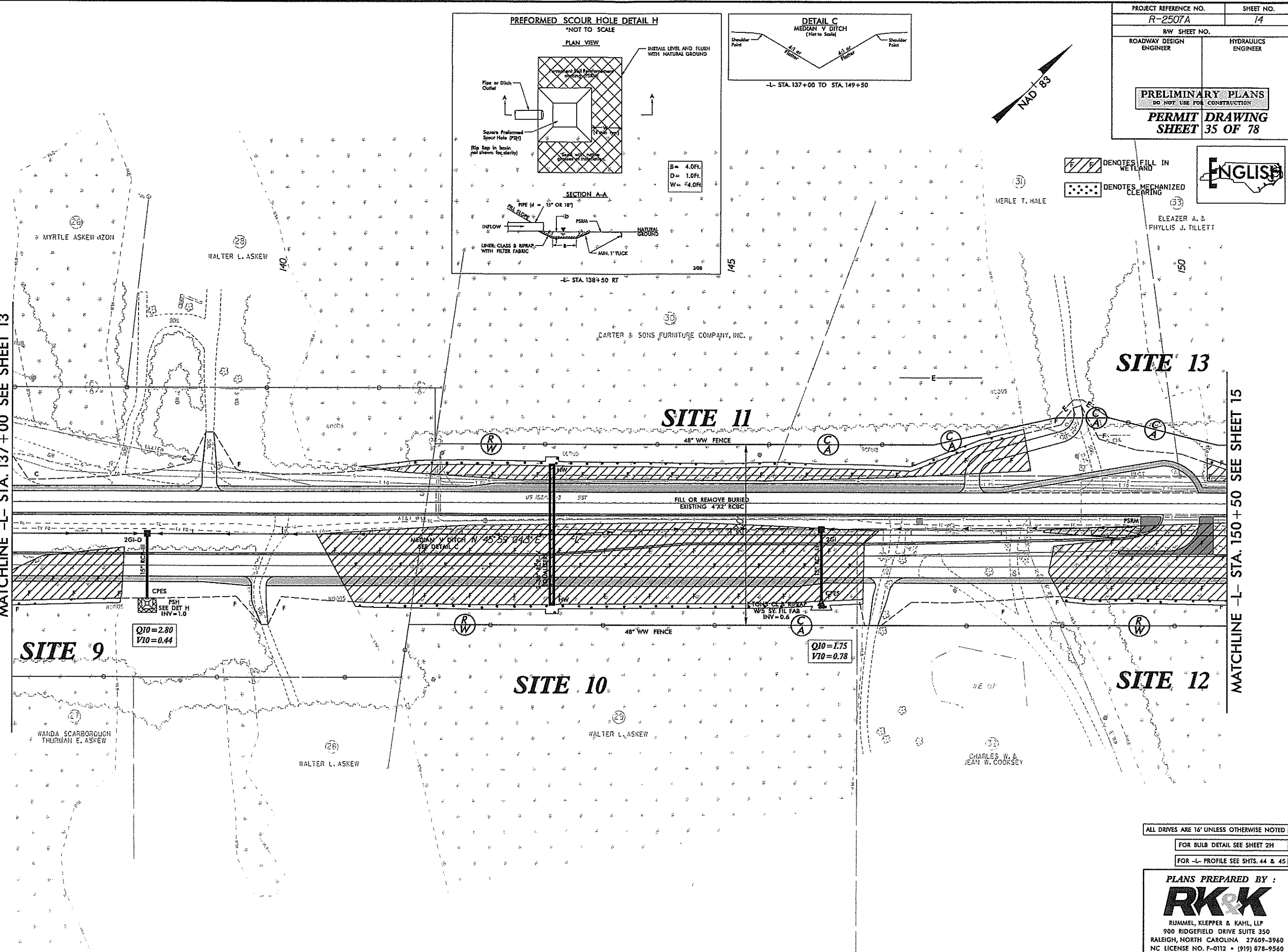
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MATCHLINE -L- STA. 137+00 SEE SHEET 13

MATCHLINE -L- STA. 150+50 SEE SHEET 15



/// DENOTES FILL IN WETLAND

□ DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO.  
R-2507A

SHEET NO.  
14

RW SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS  
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PERMIT DRAWING  
SHEET 35 OF 78



ELEAZER A. & PHYLLIS J. TILLET

CHARLES W. & JEAN W. COOKSEY

WALTER L. ASKEW

MYRTLE ASKEW HIZON

WANDA SCARBOROUGH THURMAN E. ASKEW

CARTER & SONS FURNITURE COMPANY, INC.

MERLE T. HALE

CHARLES W. & JEAN W. COOKSEY

WALTER L. ASKEW

MYRTLE ASKEW HIZON

WANDA SCARBOROUGH THURMAN E. ASKEW

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MYRTLE ASKEW HIZON

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CARTER & SONS FURNITURE COMPANY, INC.

MERLE T. HALE

CHARLES W. & JEAN W. COOKSEY

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FOR BULB DETAIL SEE SHEET 2H

FOR -L- PROFILE SEE SHTS. 44 & 45

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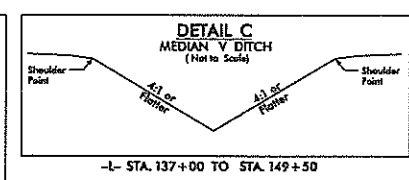
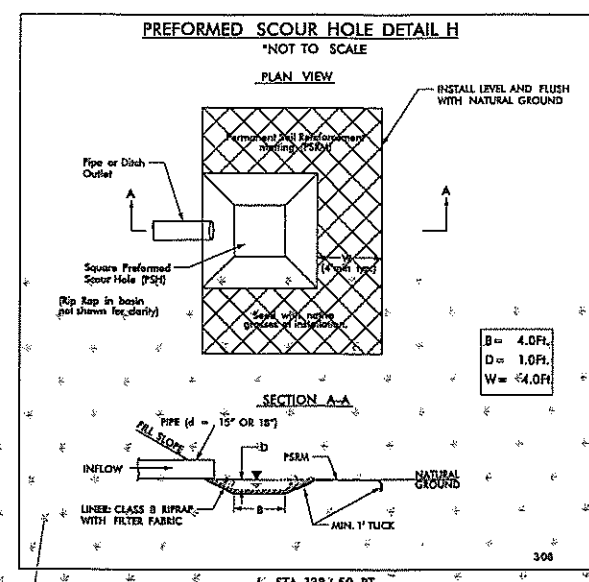
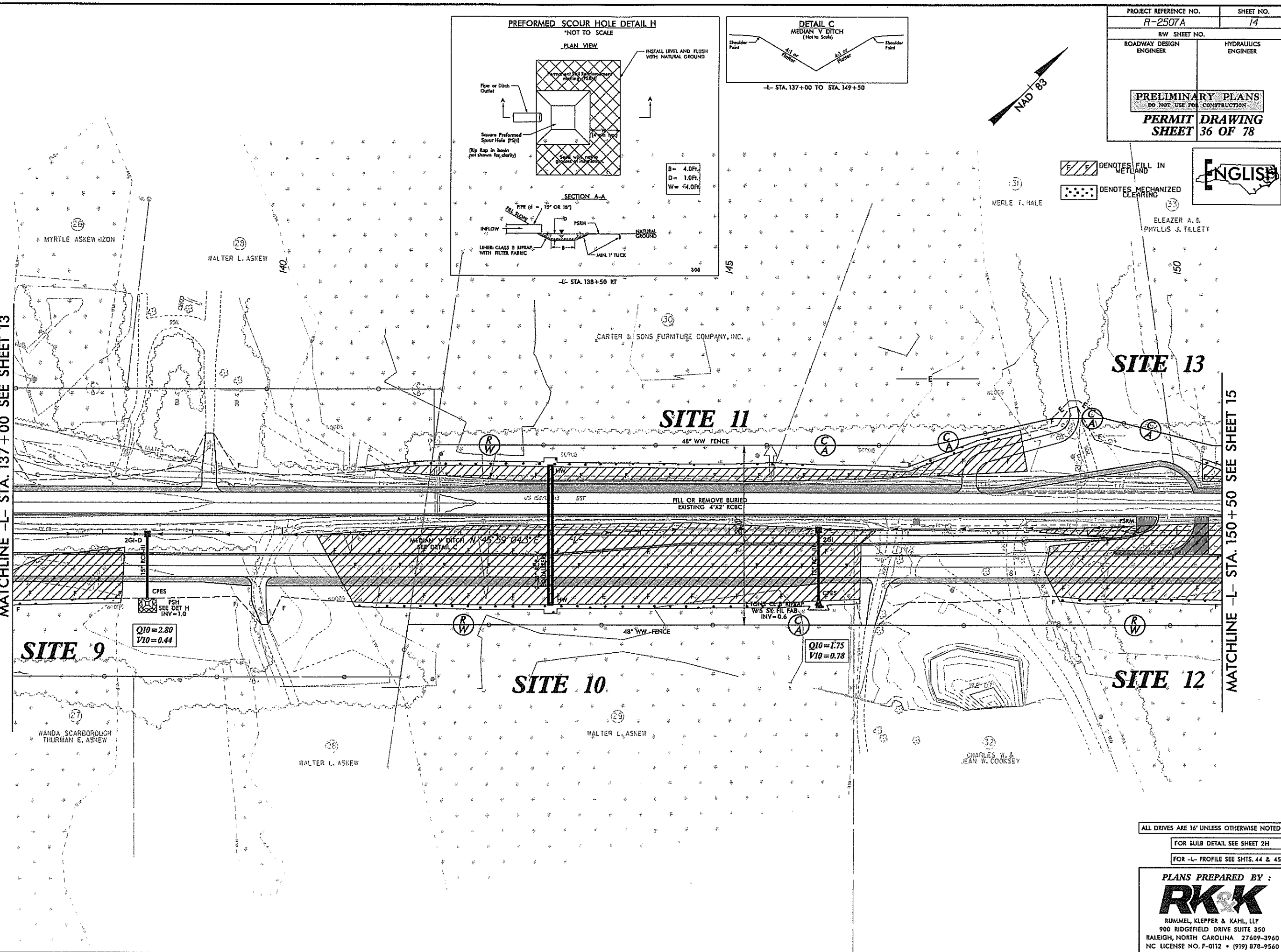
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MATCHLINE -L- STA. 137+00 SEE SHEET 13

MATCHLINE -L- STA. 150+50 SEE SHEET 15



/// DENOTES FILL IN WETLAND

.... DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO. R-2507A	SHEET NO. 14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>PERMIT DRAWING</b> SHEET 36 OF 78	



ELEAZER A. D.  
PHYLLIS J. TILLET

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FOR BULB DETAIL SEE SHEET 2H

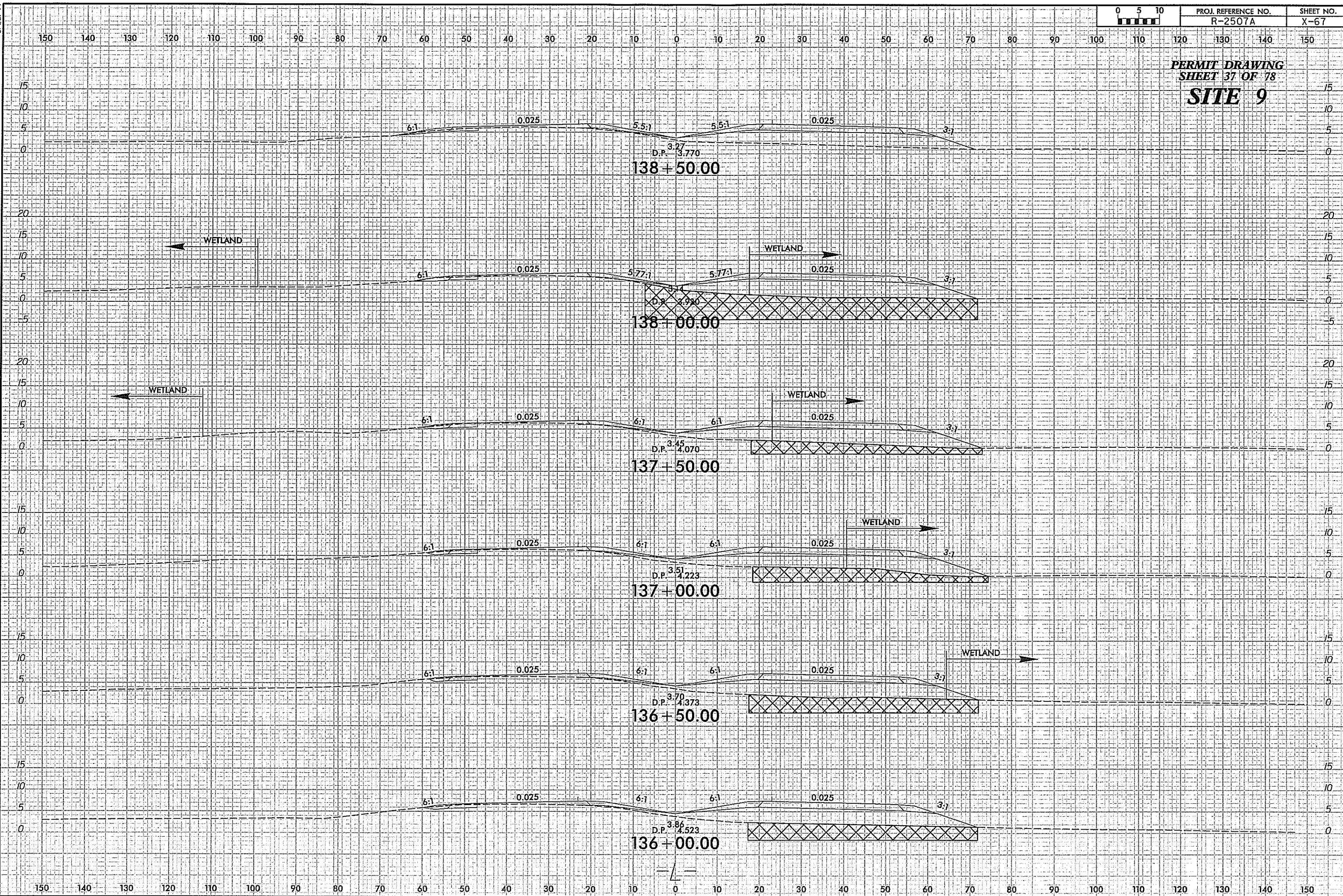
FOR -L- PROFILE SEE SHTS. 44 & 45

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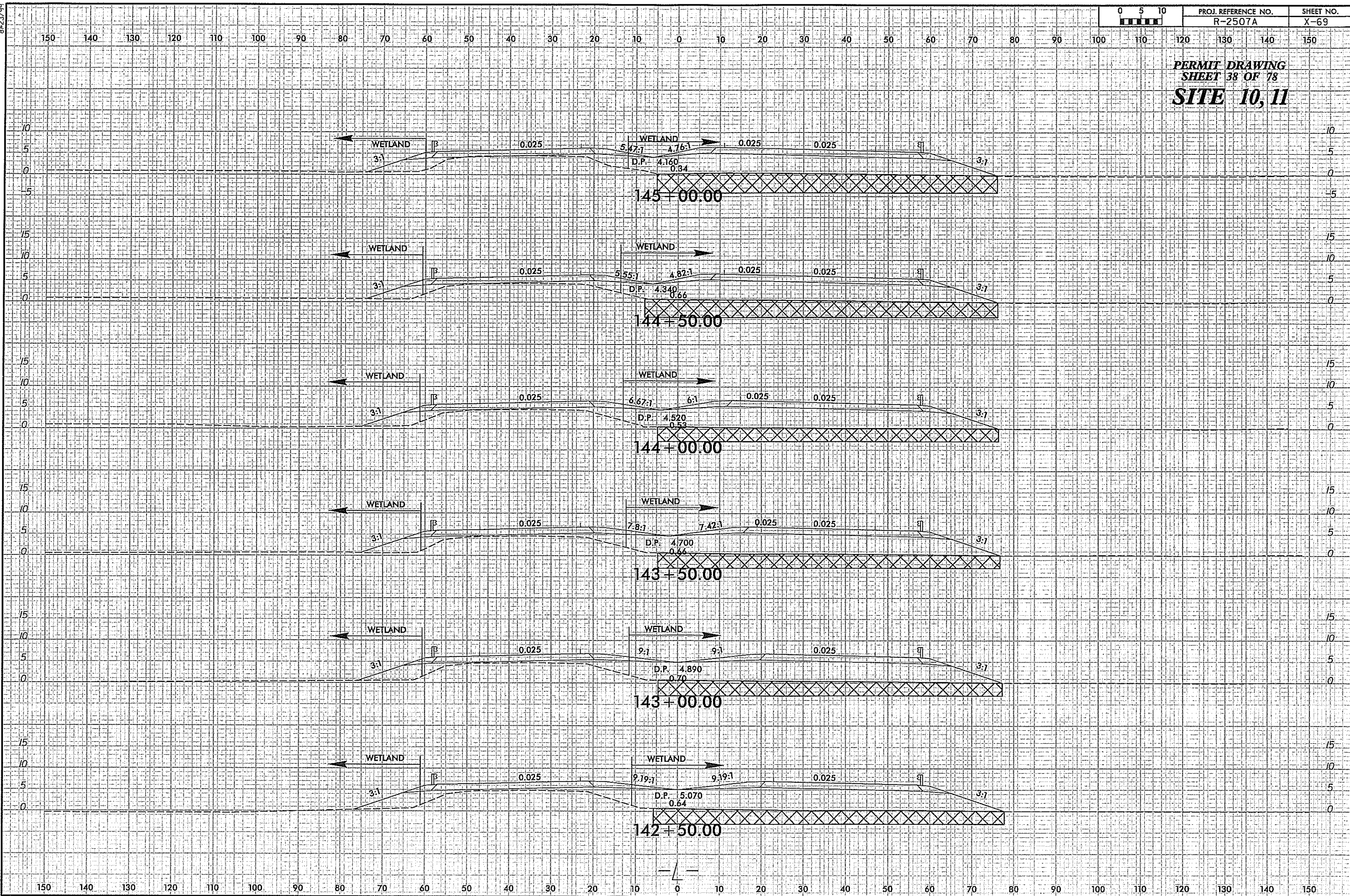
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**SITE 9**





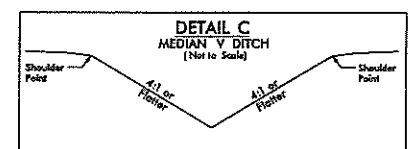
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PERMIT DRAWING  
SHEET 38 OF 78  
SITE 10, 11





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— STA. 150+50 TO STA. 155+00  
— STA. 156+50 TO STA. 163+50

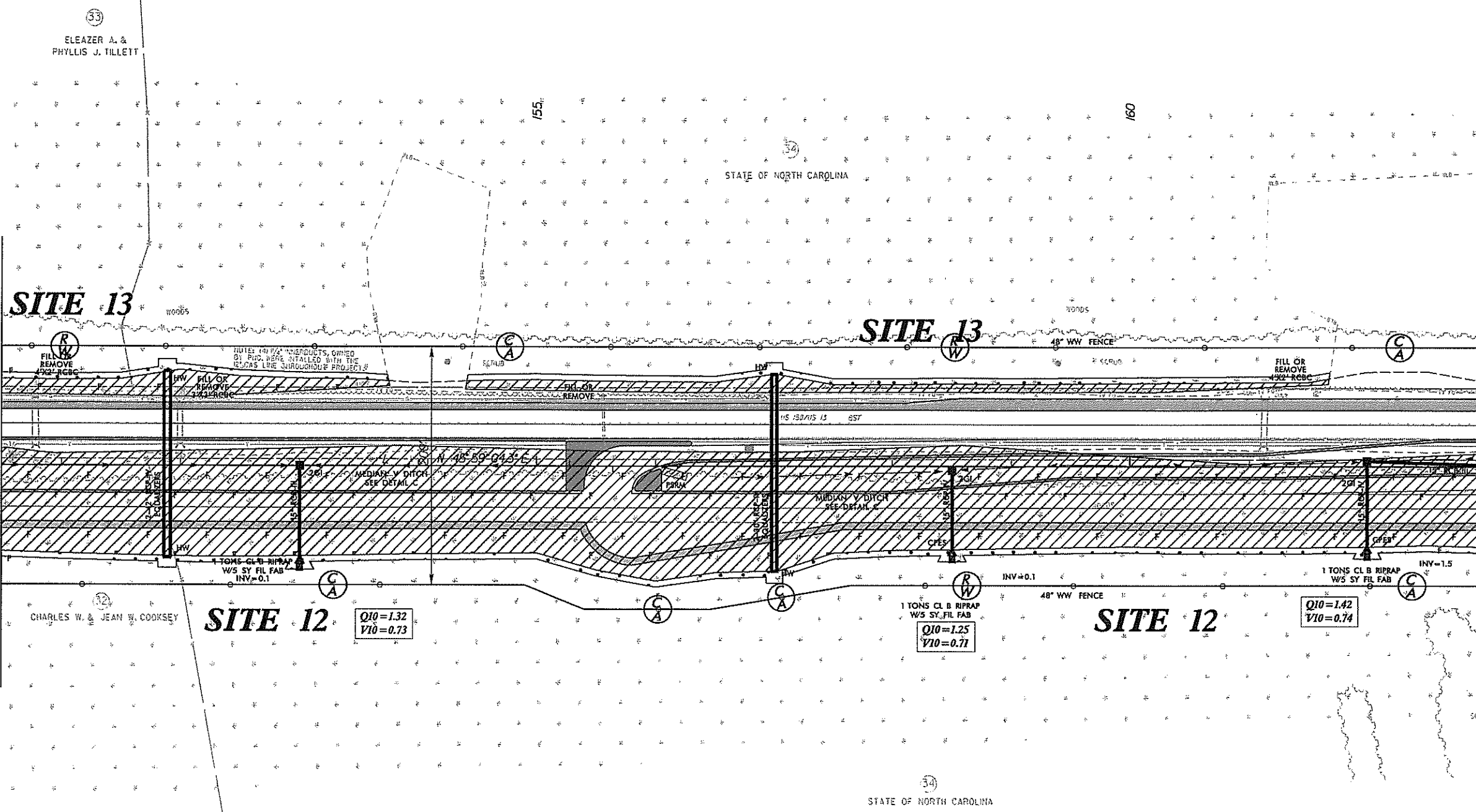
DENOTES FILL IN WETLAND  
 DENOTES MECHANIZED CLEARING



PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>15</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div><b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION</div>			
<b>PERMIT SHEET</b>		<b>DRAWING 39 OF 78</b>	

MATCHLINE -L- STA. 150+50 SEE SHEET 14

MATCHLINE -L- STA. 163+00 SEE SHEET 16



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULD DETAIL SEE SHEET 2H

FOR -L- PROFILE SEE SHT. 45

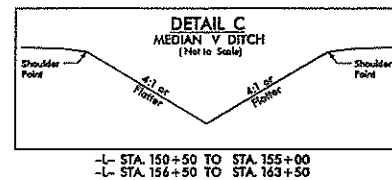
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8/17/99

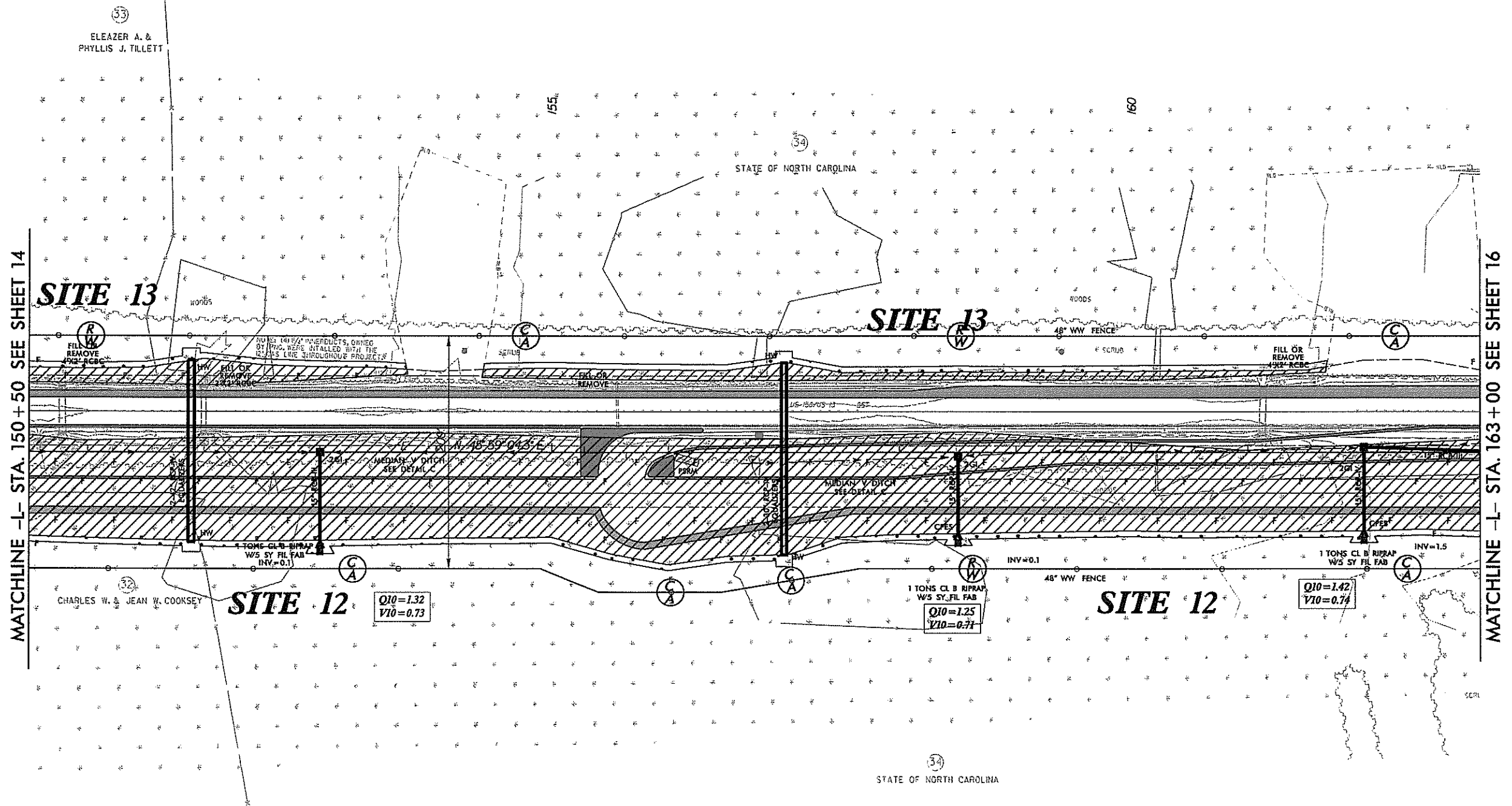


DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING



PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO. <b>15</b>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION		<b>PERMIT DRAWING</b> <b>SHEET 40 OF 78</b>	



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULD DETAIL SEE SHEET 2H

FOR -L- PROFILE SEE SHT. 45

**PLANS PREPARED BY :**

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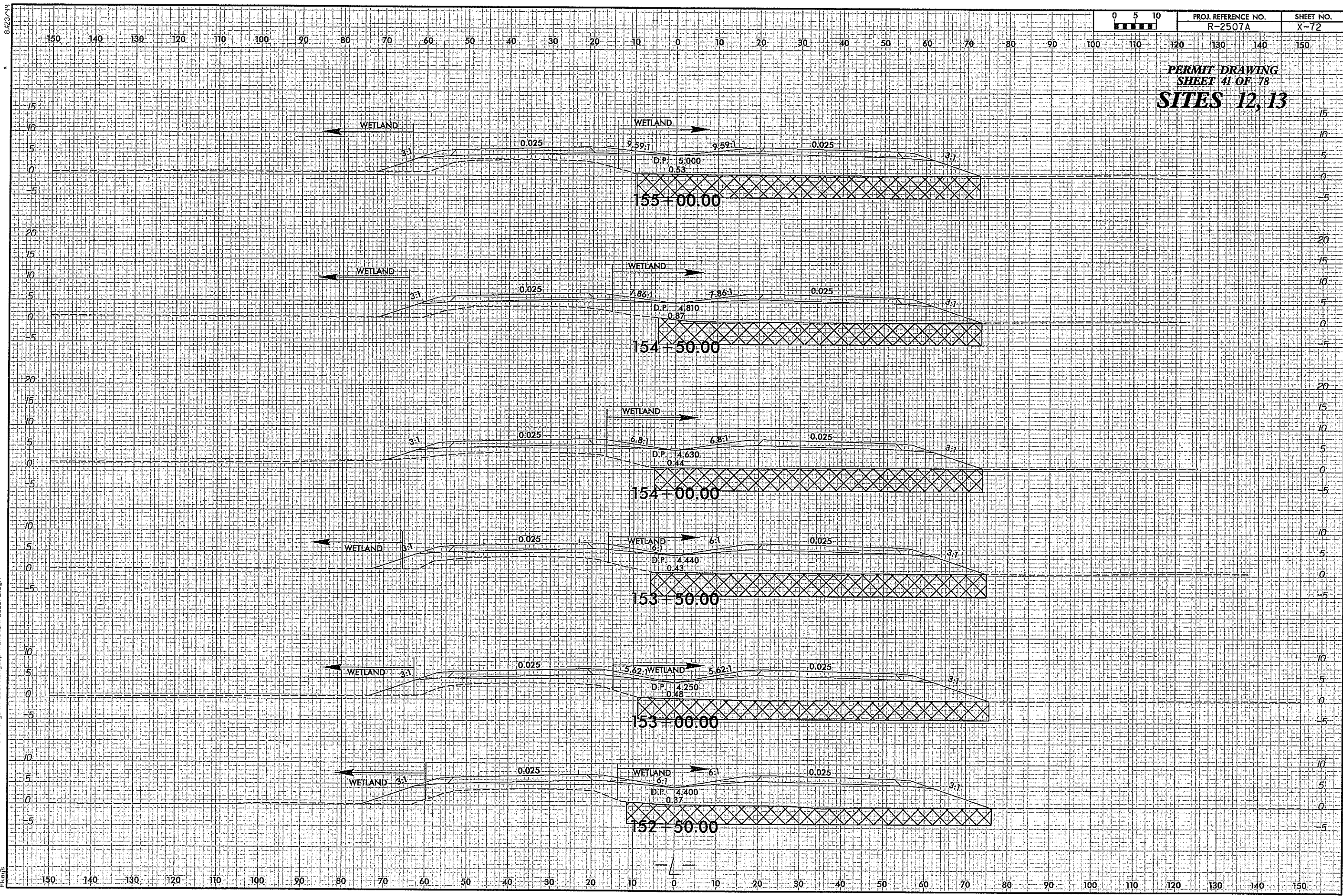


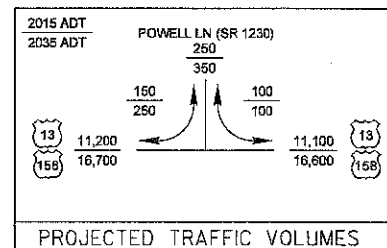
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PROJ. REFERENCE NO.	SHEET NO.
R-2507A	X-72

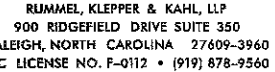
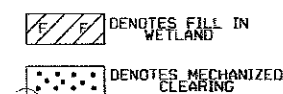
PERMIT DRAWING  
SHEET 41 OF 78  
**SITES 12, 13**





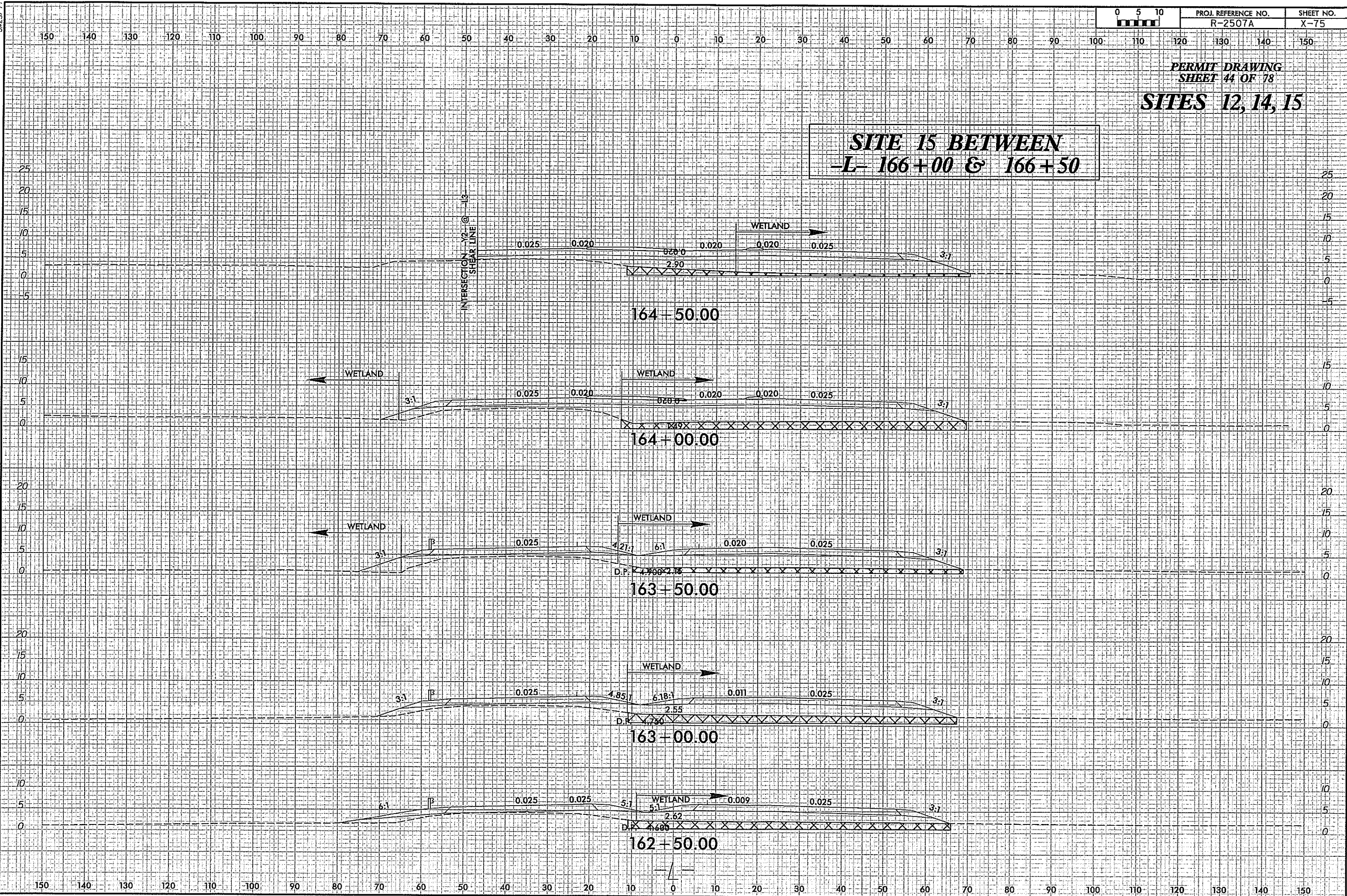
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
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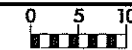
**SITES 12, 14, 15**

**SITE 15 BETWEEN  
-L- 166+00 & 166+50**





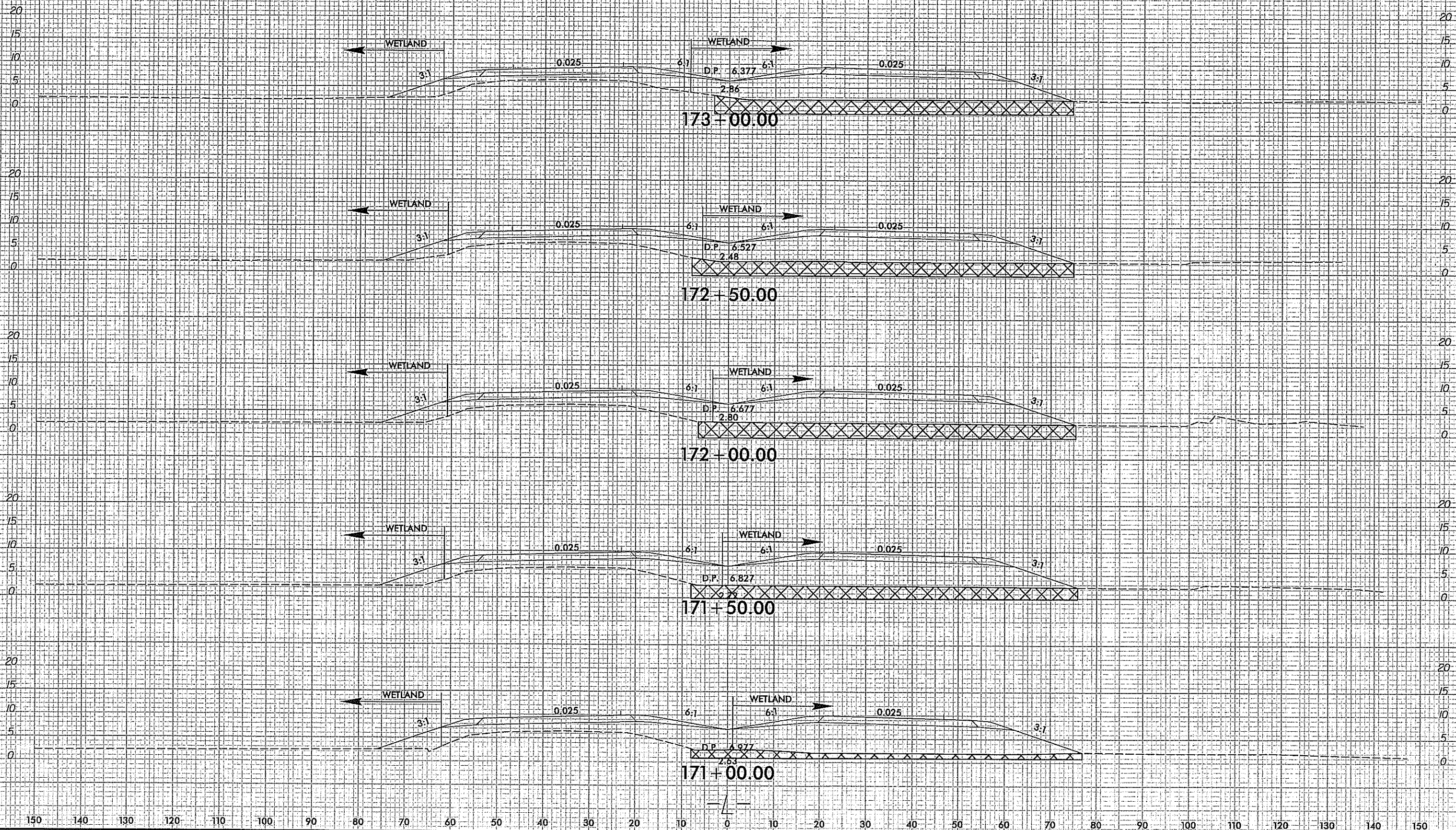
8/23/99



PROJ. REFERENCE NO.  
R-2507A

SHEET NO.  
X-78

PERMIT DRAWING  
SHEET 45 OF 78  
**SITES 16, 17**





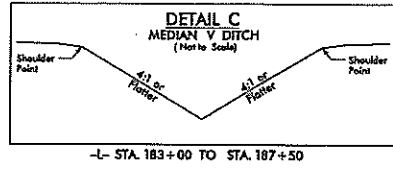
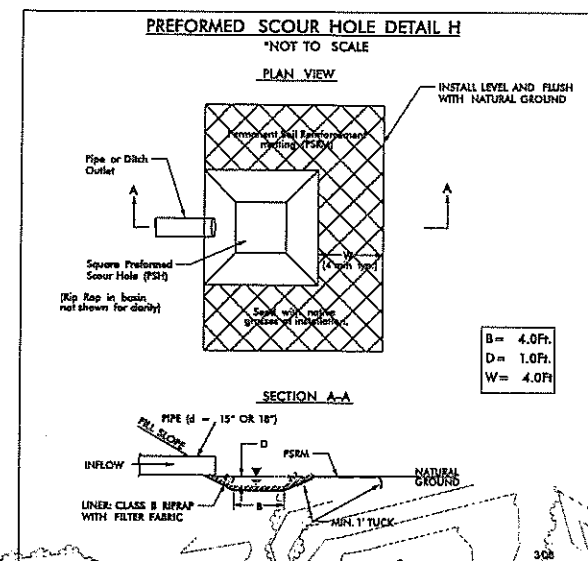


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MATCHLINE -L- STA. 176+00 SEE SHEET 16

MATCHLINE -L- STA. 189+00 SEE SHEET 18

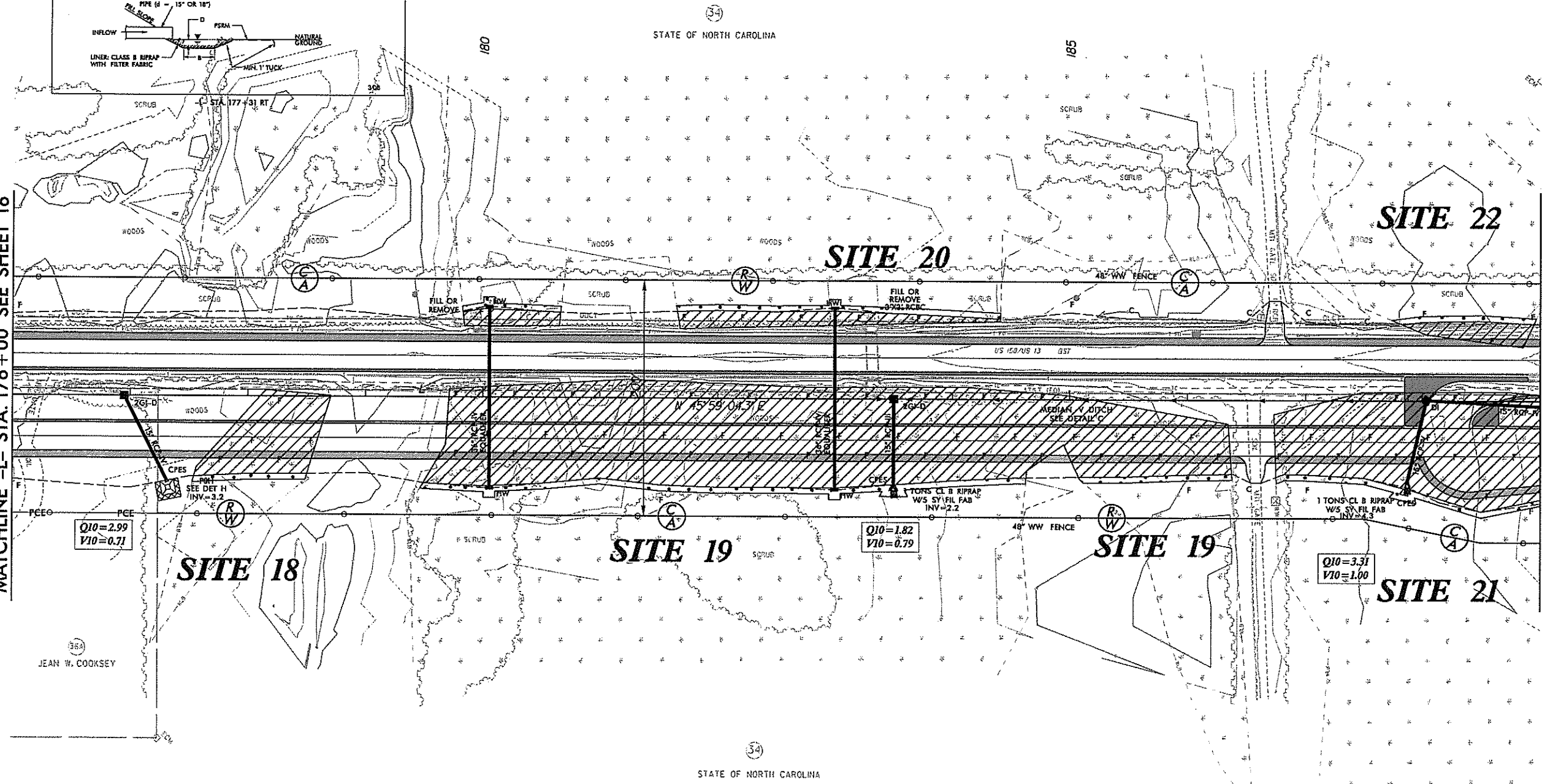


6/6 DENOTES FILL IN WETLAND

6/6 DENOTES MECHANIZED CLEARING



PROJECT REFERENCE NO. R-2507A	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT SHEET	DRAWING 47 OF 78



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULB DETAIL SEE SHEET 2H

FOR -L- PROFILE SEE SHT. 46

PLANS PREPARED BY :

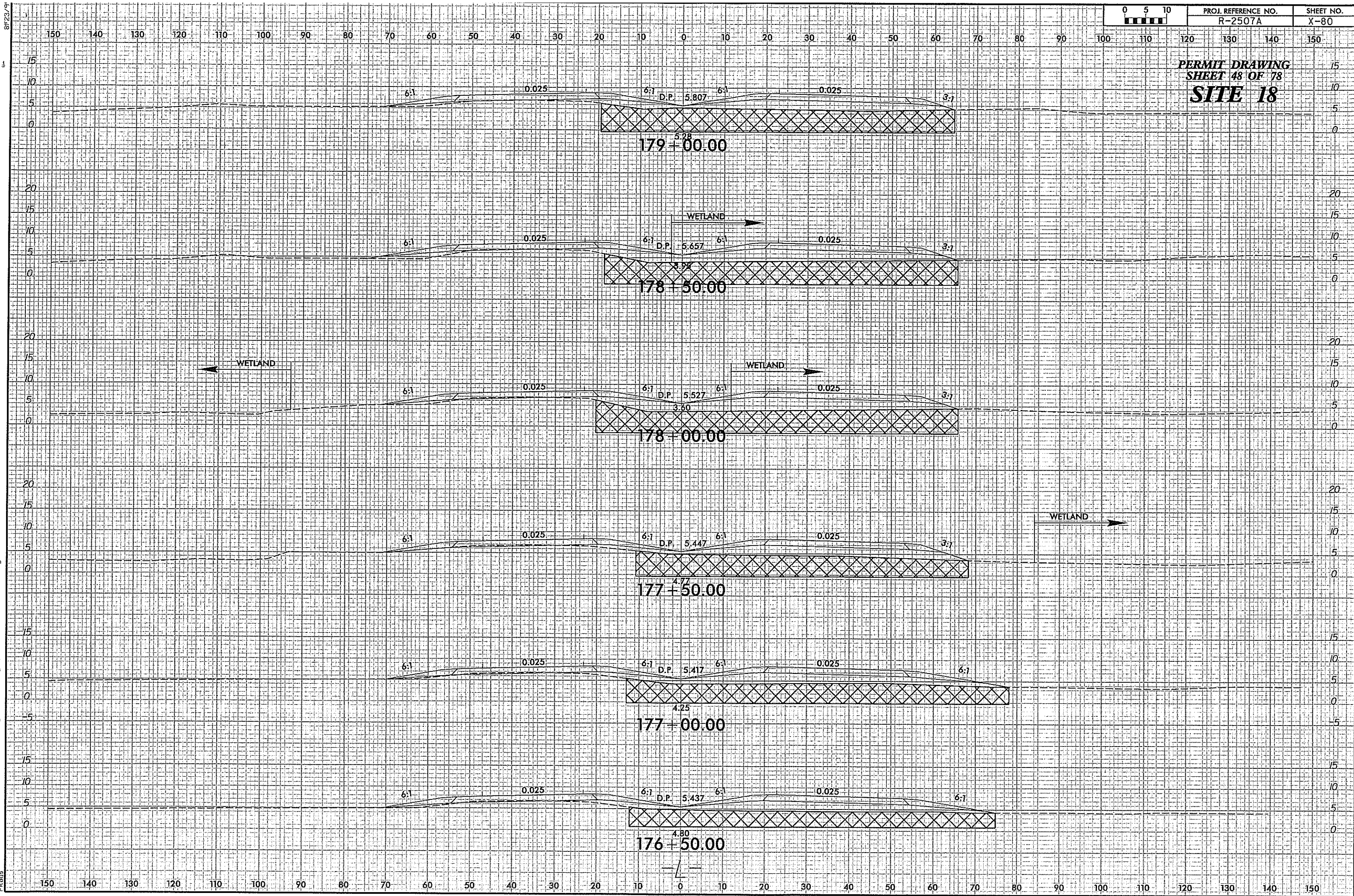
**RK&K**

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PERMIT DRAWING  
SHEET 48 OF 78  
**SITE 18**

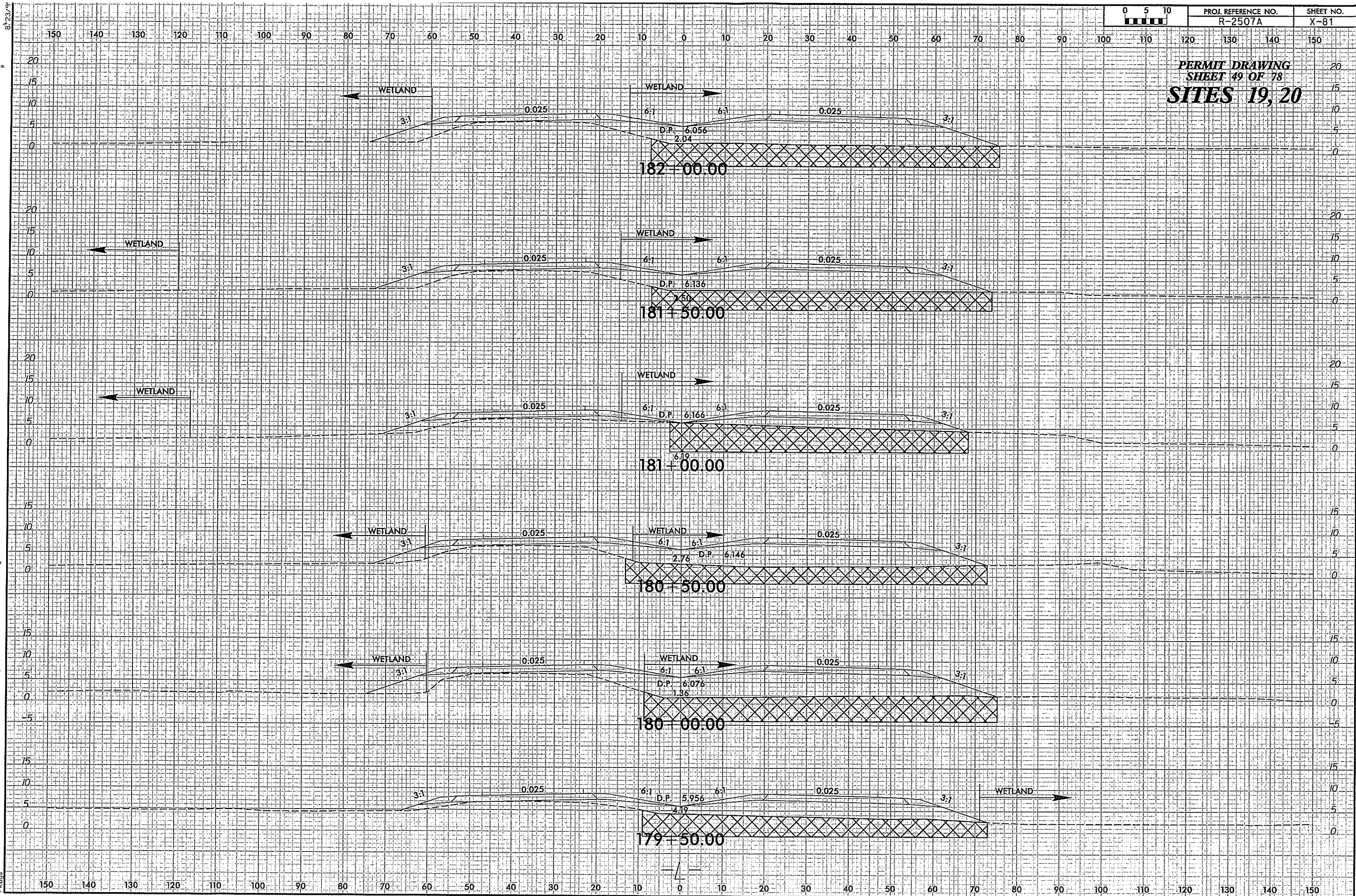
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8/23/99  
3/2/2012  
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PROJ. REFERENCE NO.		SHEET NO.
R-2507A		X-81

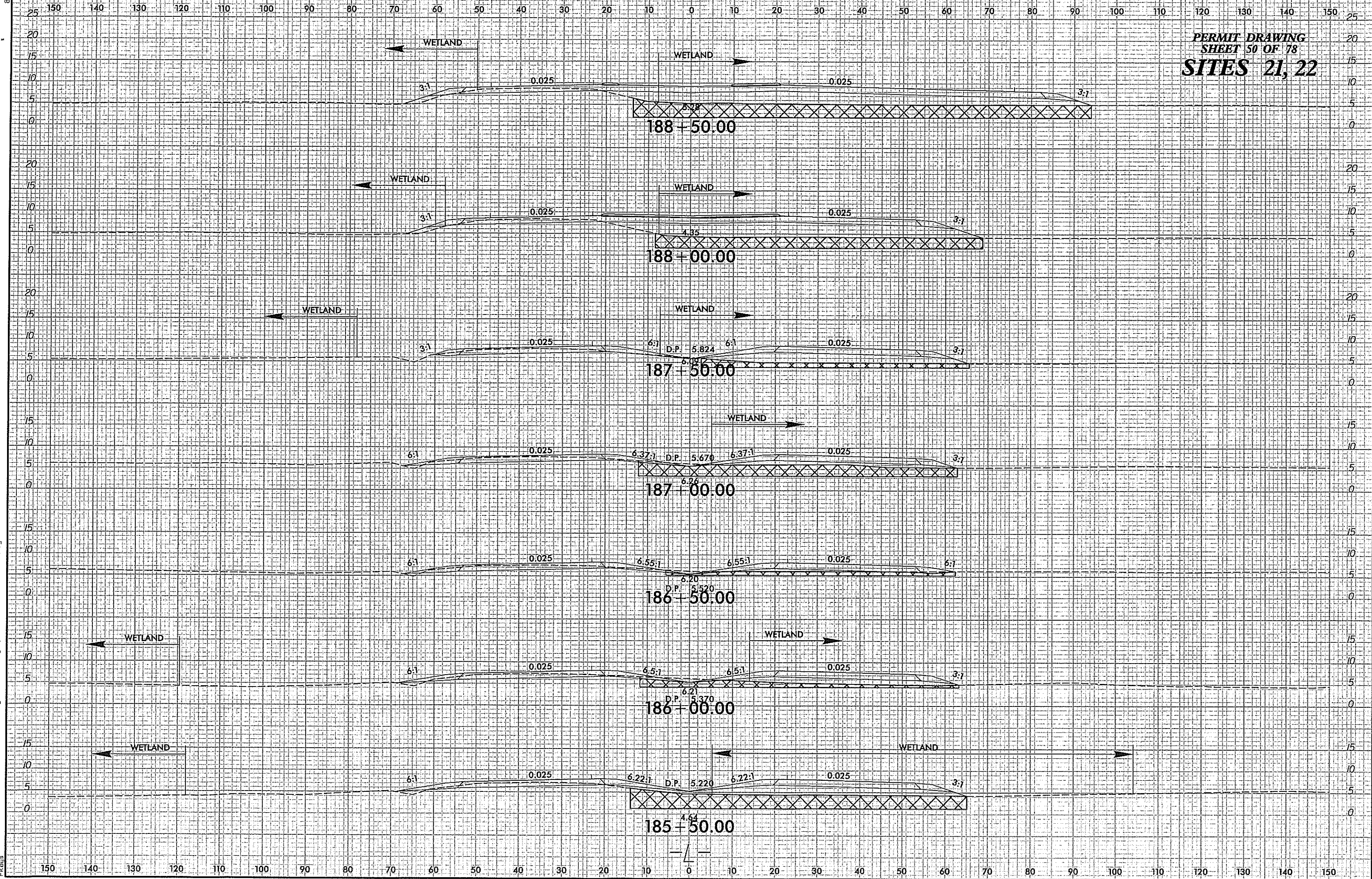
PERMIT DRAWING  
SHEET 49 OF 78  
SITES 19, 20



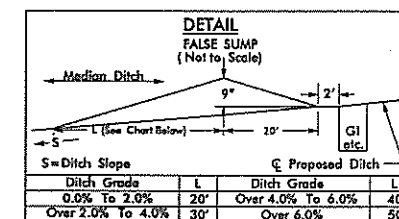
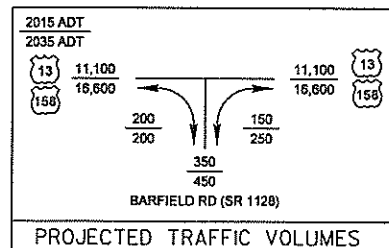
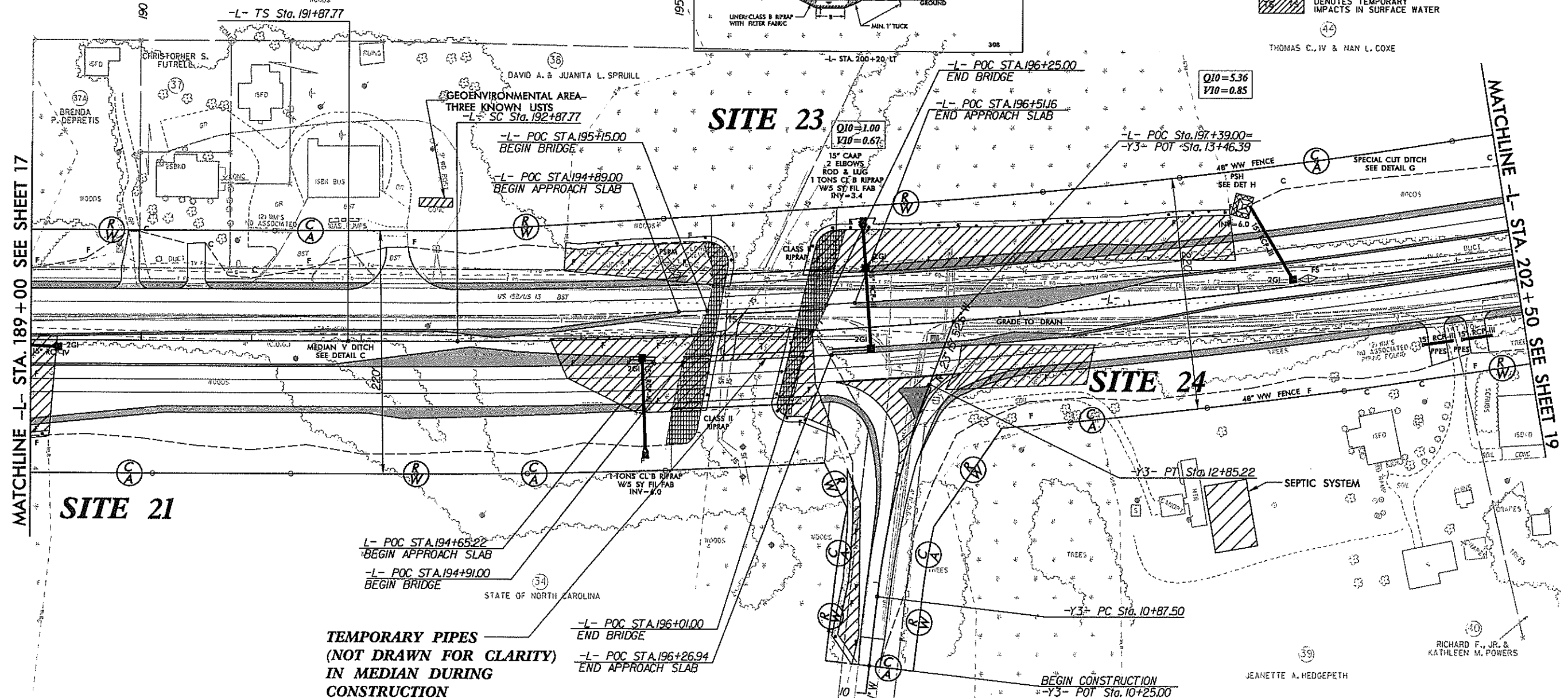
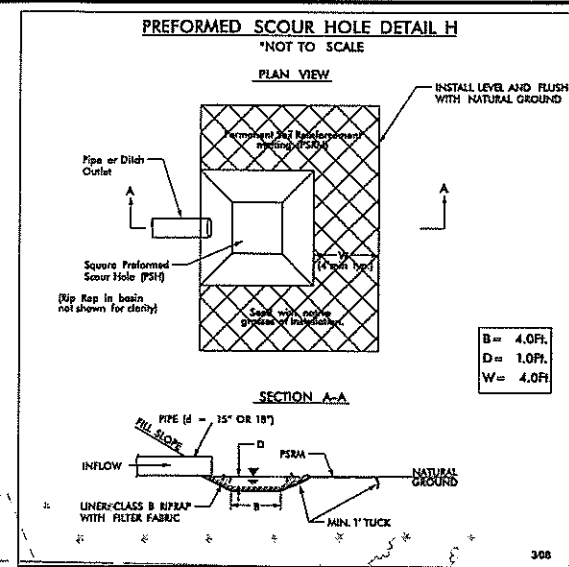
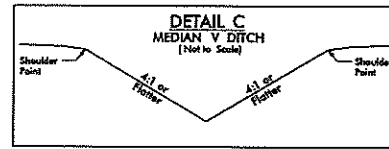
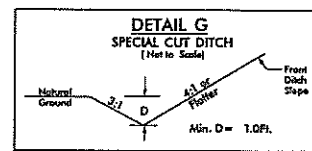
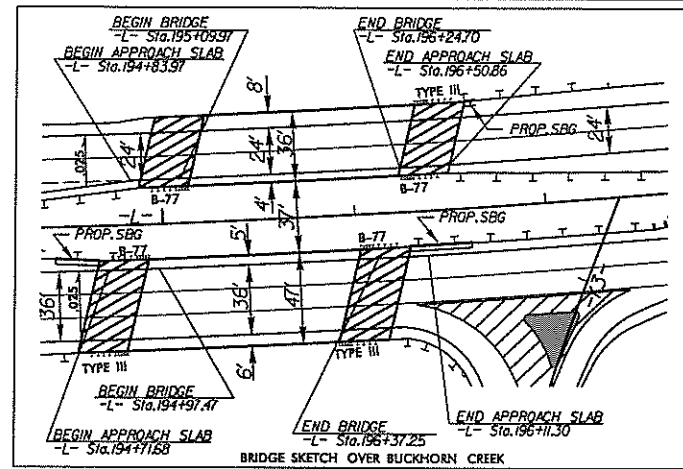


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PERMIT DRAWING  
SHEET 50 OF 78  
SITES 21, 22



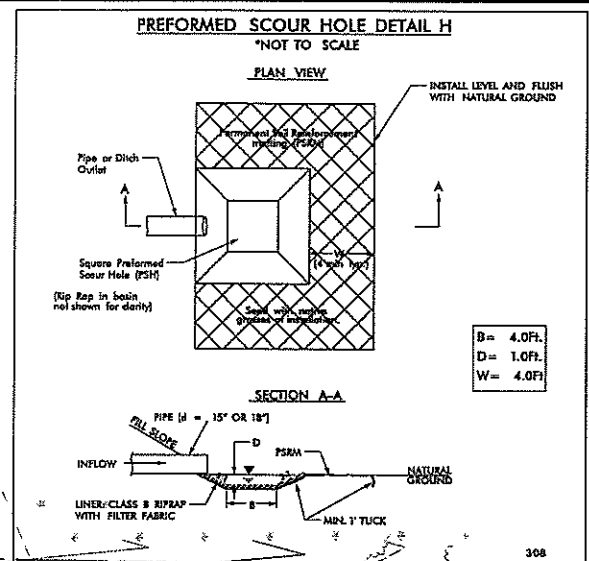
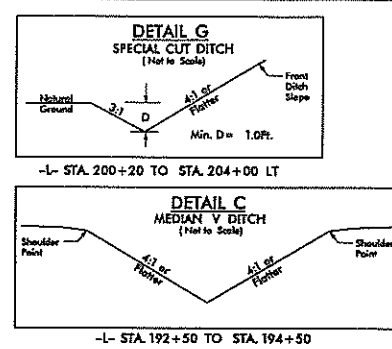
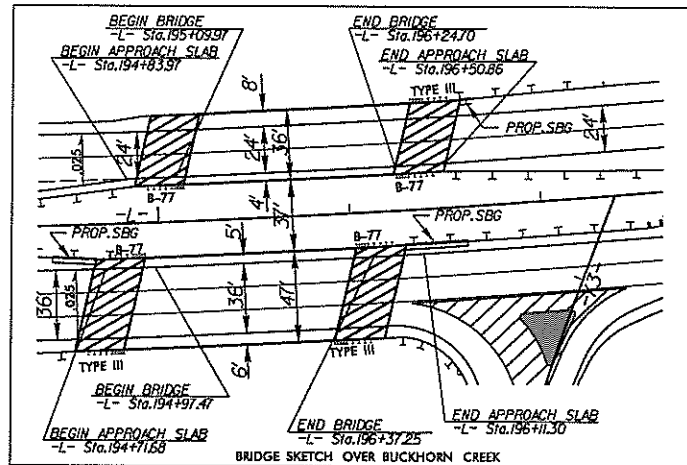




OR -L- PROFILE SEE SHT. 45  
OR -Y3- PROFILE SEE SHT. 58

**PLANS PREPARED BY :**  
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PROJECT REFERENCE NO. R-2507A SHEET NO. 18

R/W SHEET NO.

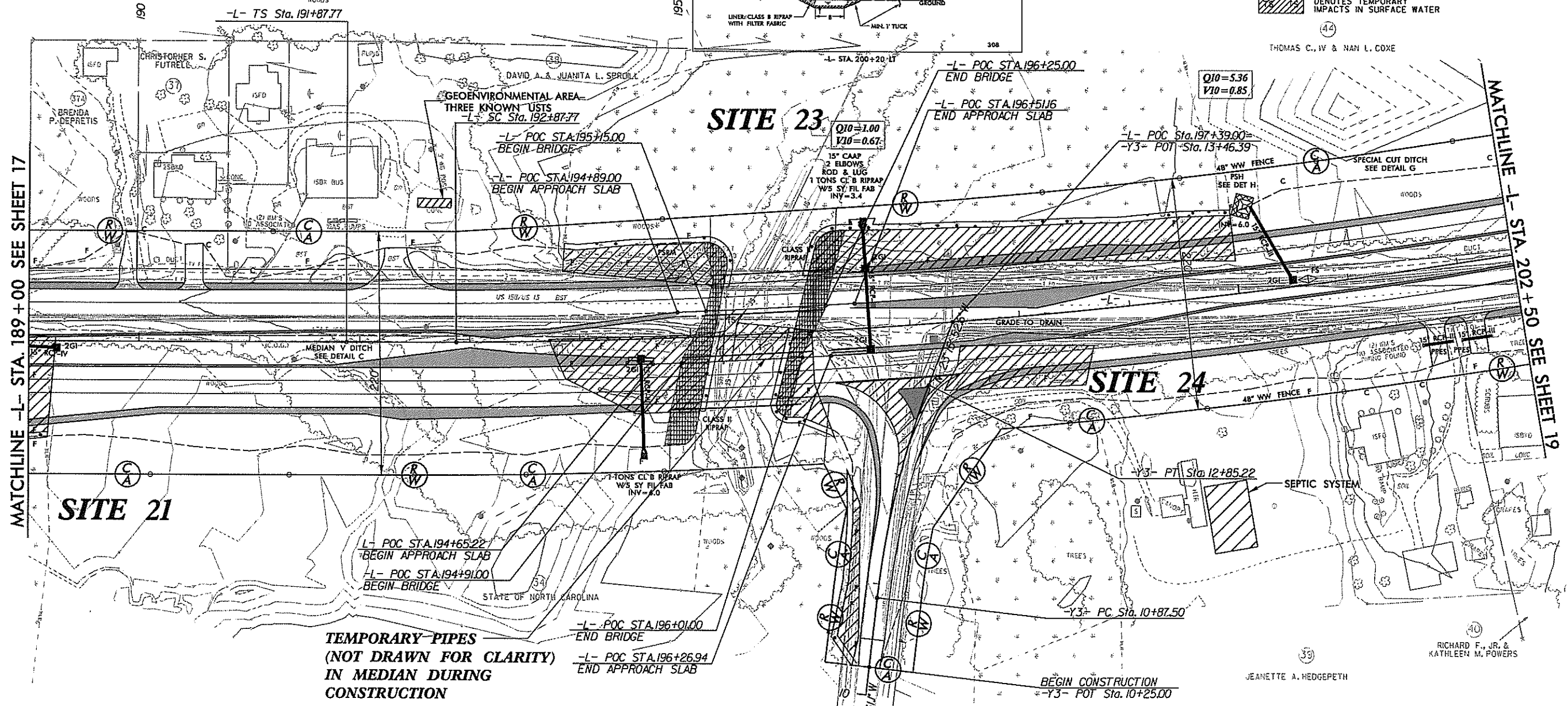
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

INCOMPLETE PLANS  
DO NOT USE FOR A/W ACQUISITION

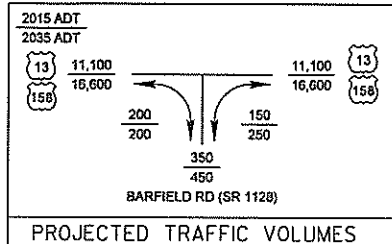
PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING**  
**SHEET 52 OF 78**

- Denotes FILL IN WETLAND
- Denotes TEMPORARY FILL IN WETLAND
- Denotes MECHANIZED CLEARING
- Denotes TEMPORARY IMPACTS IN SURFACE WATER



TEMPORARY PIPES  
(NOT DRAWN FOR CLARITY)  
IN MEDIAN DURING  
CONSTRUCTION



DETAIL  
FALSE SUMP  
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

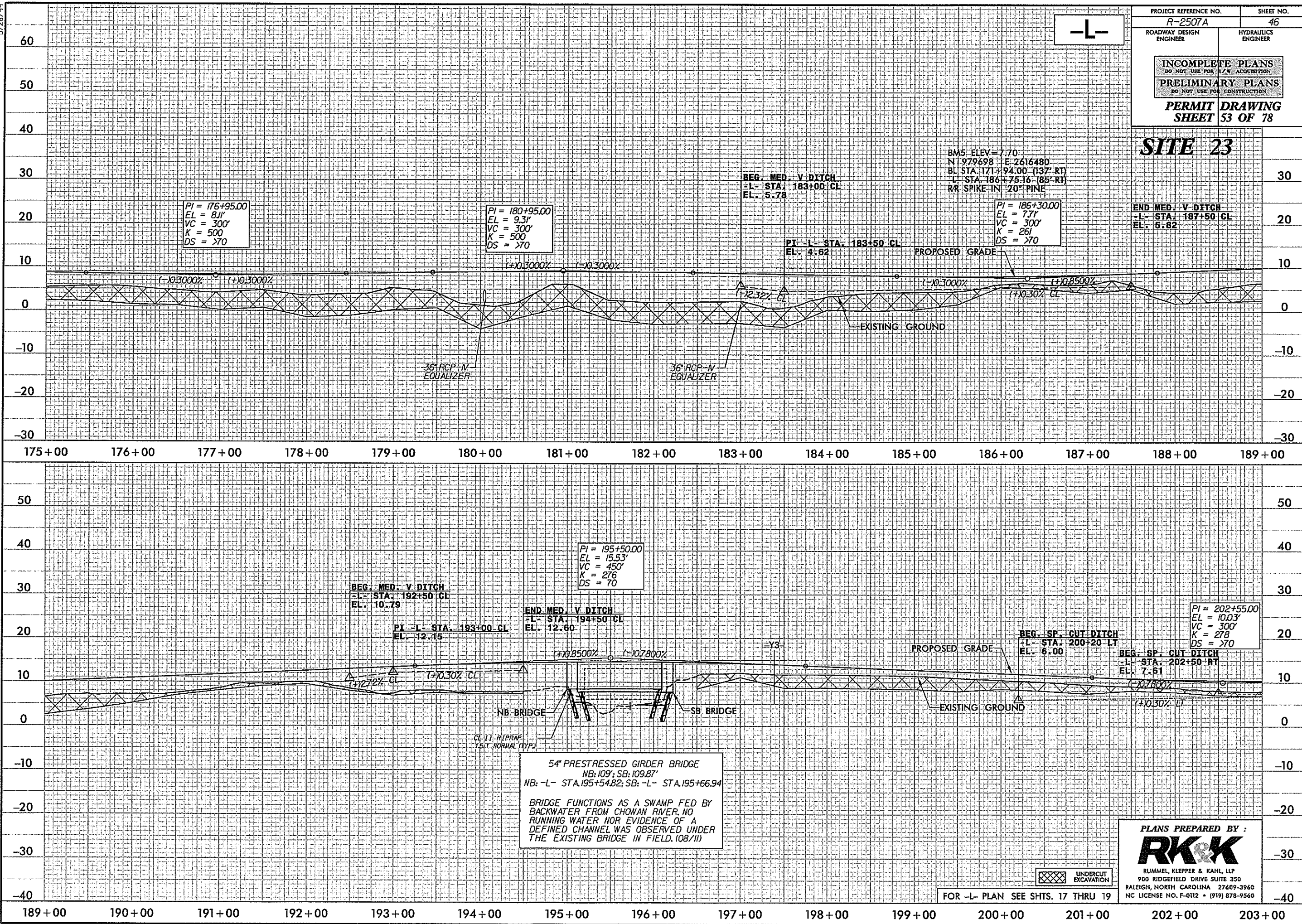
PLANS PREPARED BY:

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5/28/95  
3/5/2012  
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PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO. <b>46</b>	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR ACQUISITION		PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
<b>PERMIT DRAWING SHEET 53 OF 78</b>			

**SITE 23**

**PLANS PREPARED BY :**

**RK&K**

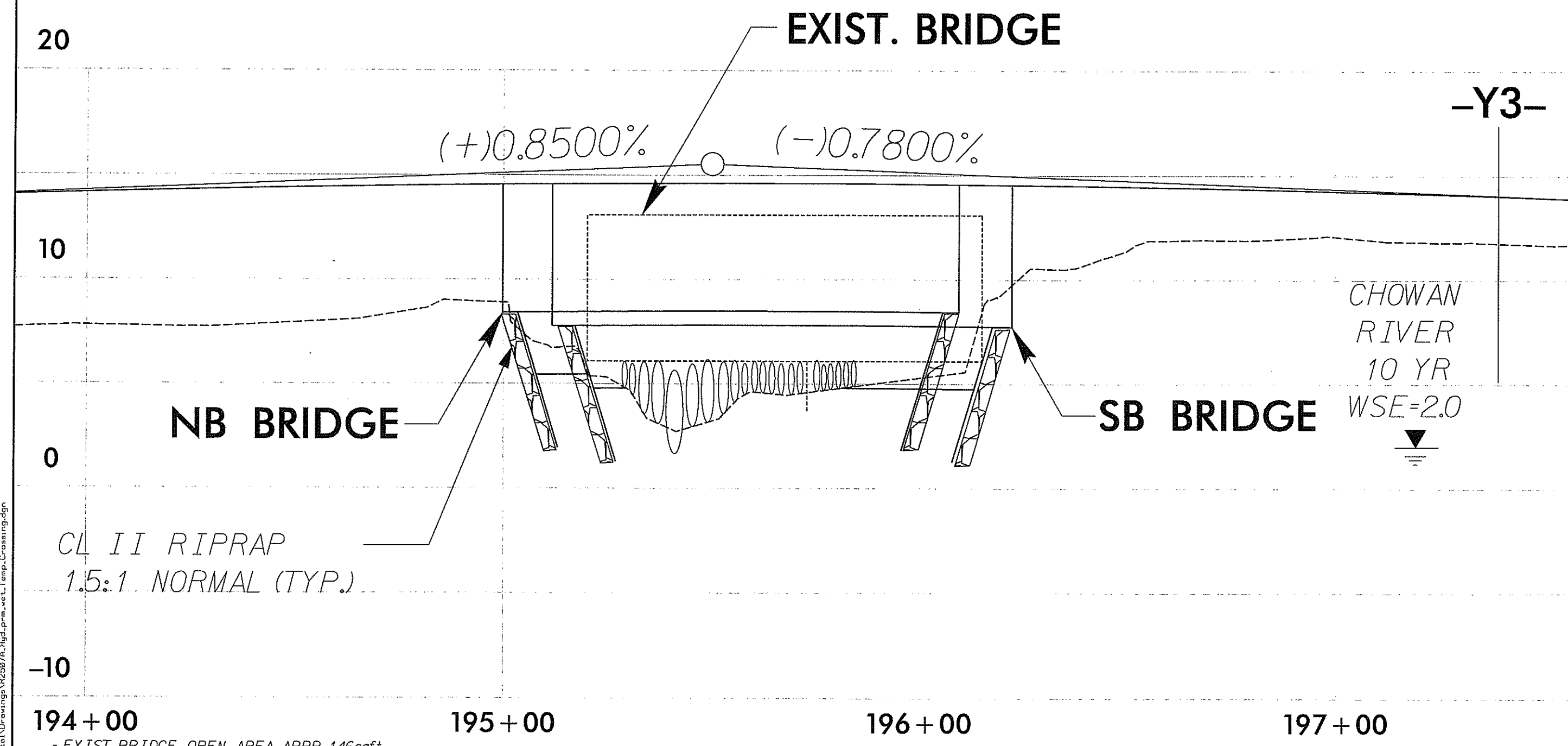
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
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5/28/99

-L-

PROJECT REFERENCE NO.		SHEET NO.
R-2507A		46A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR ACQUISITION</div> <div>PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION</div> <div>PERMIT DRAWING SHEET 33A OF 78</div>		

SITE 23



- EXIST.BRIDGE OPEN AREA APPR.146sqft
- MAXIMIZED PIPE ASSORTMENT OPEN AREA APPR.64.5sqft  
(1@48" buried 1.0', 3@36", 2@30", 1@24", 9@18", 6@15")
- ALTERNATE PIPES MAY BE USED TO INCREASE OPEN AREA
- PIPES APPR.46' IN LENGTH
- BRIDGE CARRIES BACKWATER FROM CHOWAN RIVER BRIDGE
- CHOWAN RIVER BRIDGE Q10 ELEV=2.0
- LOW POINT UNDER EXIST.BUCKHORN BRIDGE ELEV=2.7'
- CROSSING IN PLACE APPR.10 MONTHS

PLANS PREPARED BY :

**RK&K**

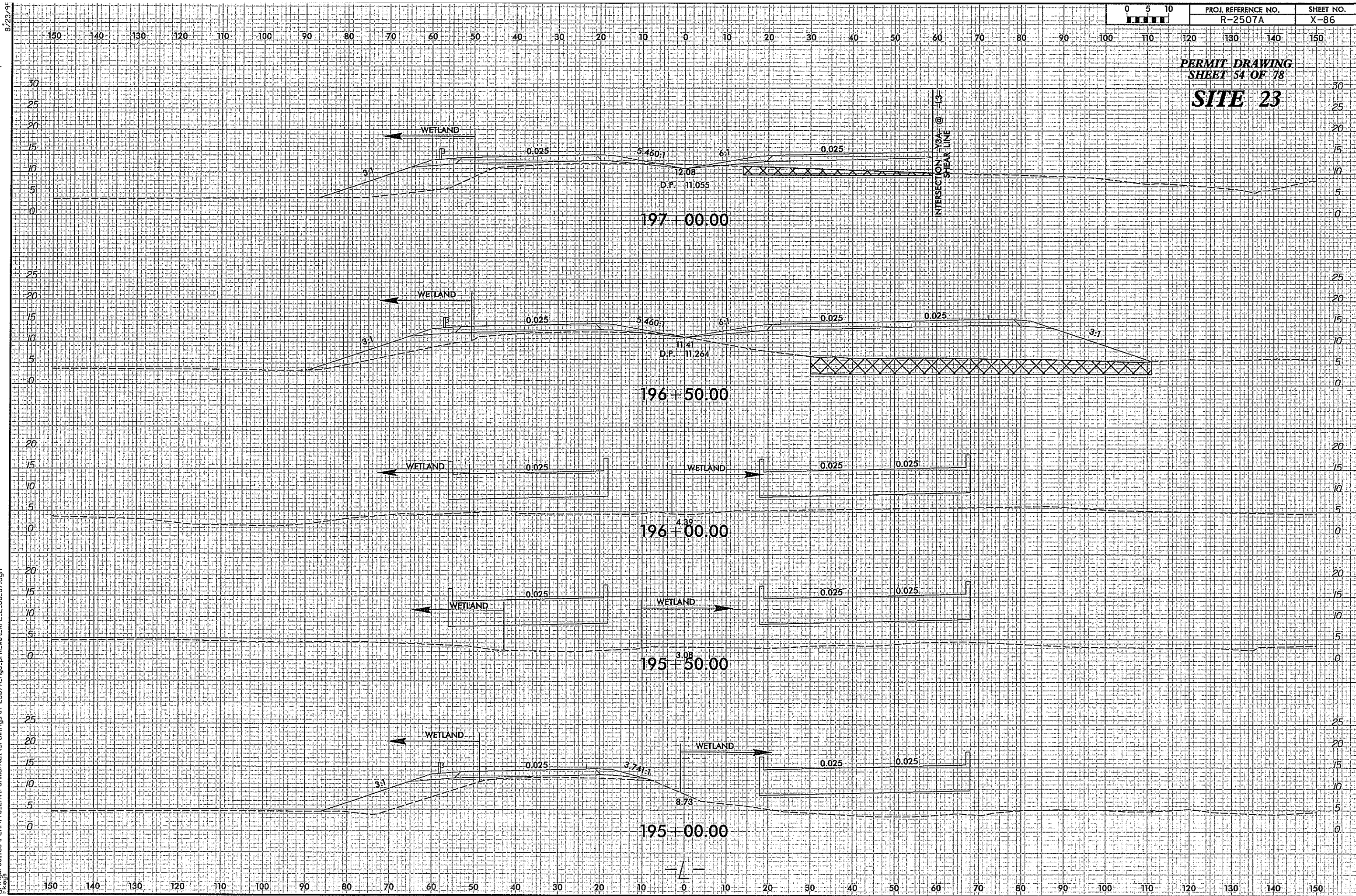
RUMMEL, KLEPPER & KAHL, LLP  
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RALEIGH, NORTH CAROLINA 27609-3960  
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3/2/2012  
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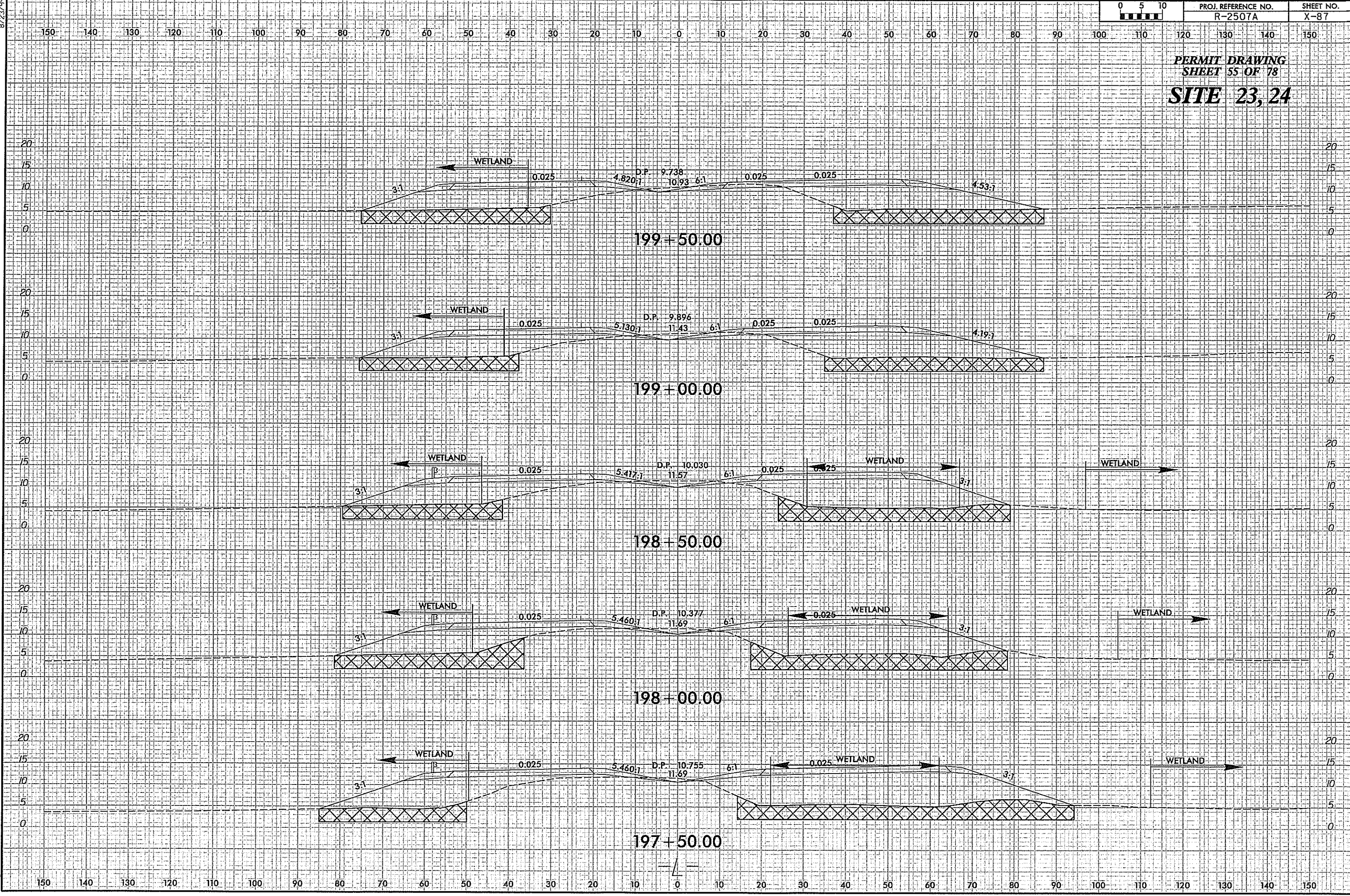
PERMIT DRAWING  
SHEET 54 OF 78  
**SITE 23**





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3/2/2012  
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PERMIT DRAWING  
SHEET 55 OF 78  
**SITE 23, 24**





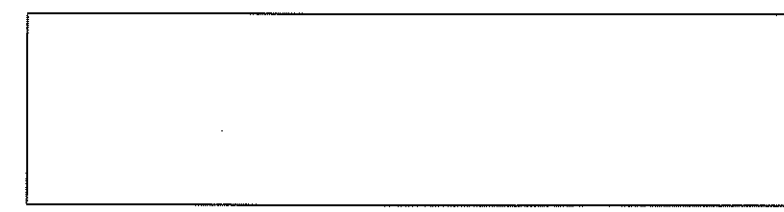
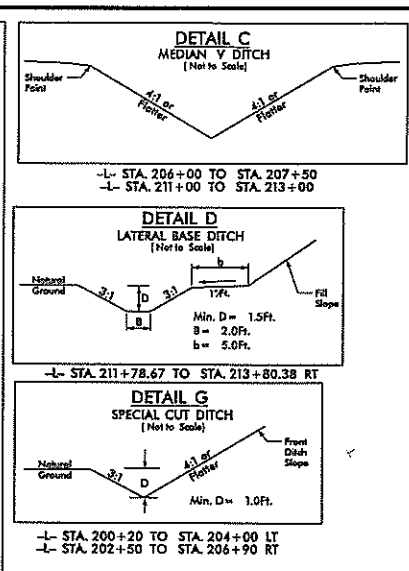
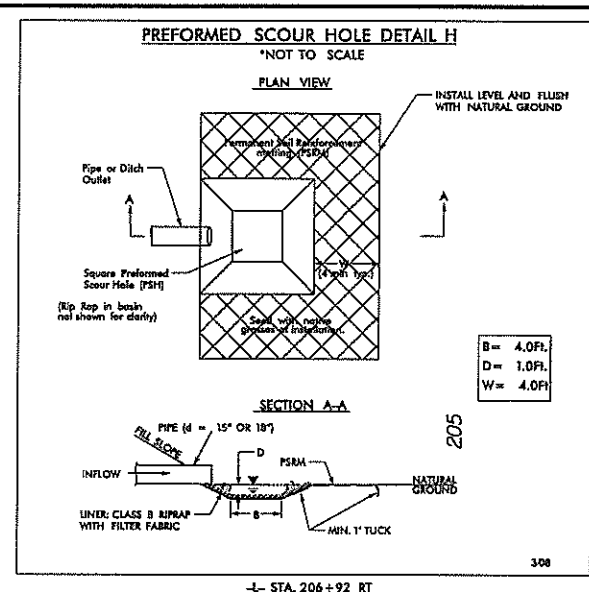


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MATCHLINE -L- STA. 202+50 SEE SHEET 18

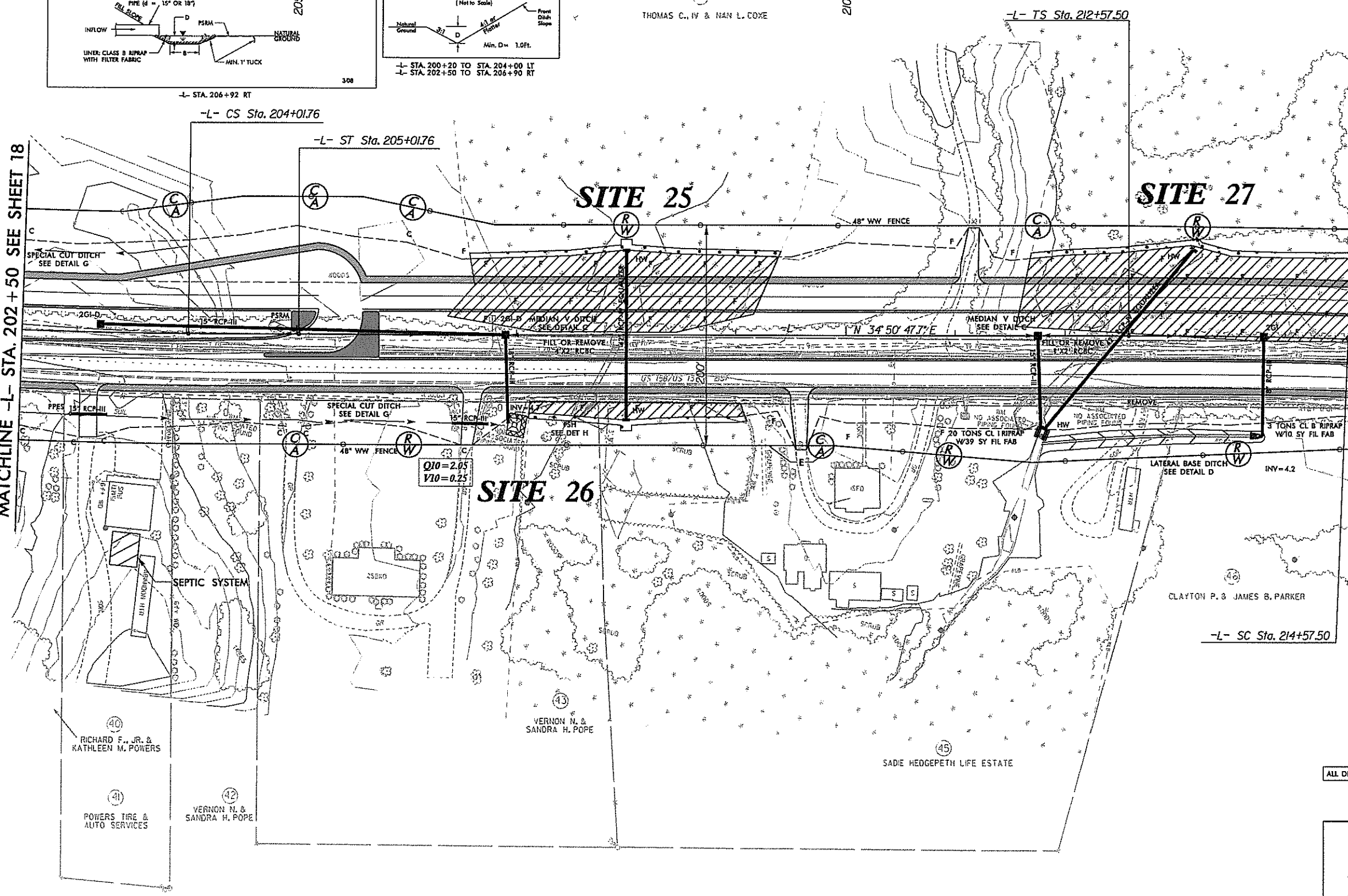
MATCHLINE -L- STA. 215+00 SEE SHEET 20



PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>19</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div><div>PRELIMINARY PLANS</div><div>DO NOT USE FOR CONSTRUCTION</div></div>			
<i>PERMIT</i>		<i>DRAWING</i>	
<i>SHEET</i>		<i>57 OF 78</i>	

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BUILD DETAILS SEE SHEET 2H

FOR -L- PROFILE SEE SHTS. 46 & 47

PLANS PREPARED BY :

**RK&K**

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900 RIDGEFIELD DRIVE SUITE 350

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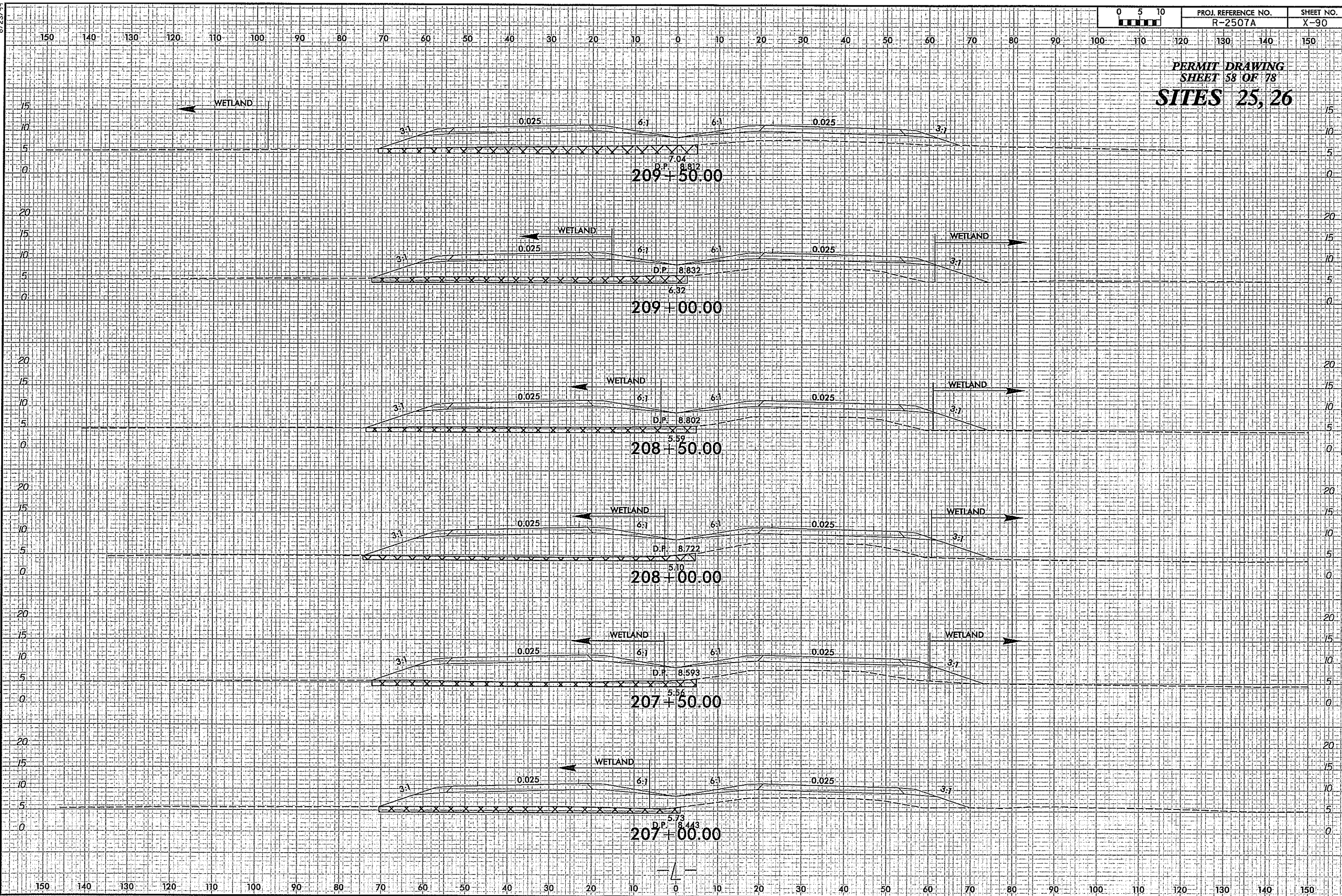


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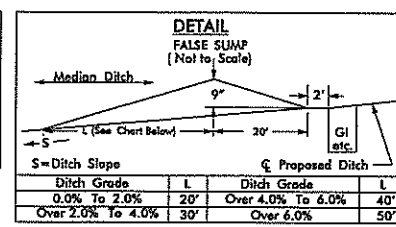
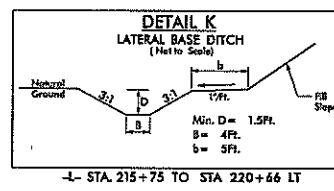
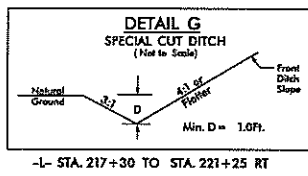
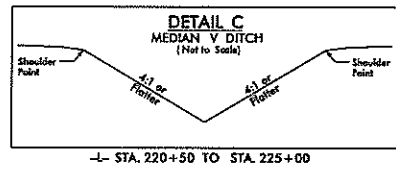
PROJ. REFERENCE NO.	SHEET NO.
R-2507A	X-90

PERMIT DRAWING  
SHEET 58 OF 78  
**SITES 25, 26**

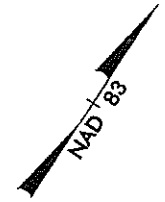


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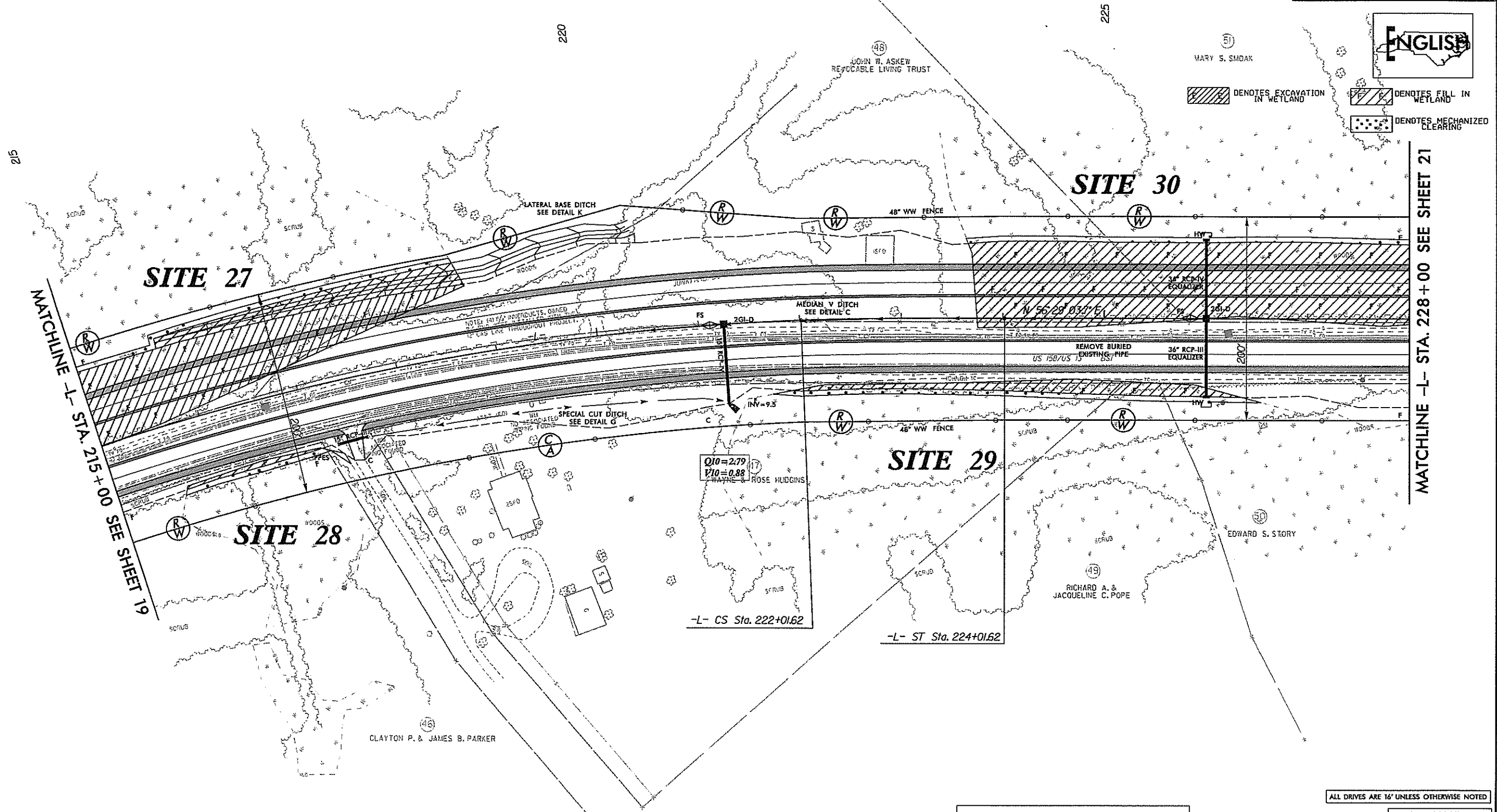
8/17/99



PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO. <b>20</b>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			
<b>PERMIT SHEET</b>		<b>DRAWING 59 OF 78</b>	



- LEGEND:
- DIAGONAL HATCHING: DENOTES EXCAVATION IN WETLAND
  - CROSS-HATCHING: DENOTES FILL IN WETLAND
  - DOTTED PATTERN: DENOTES MECHANIZED CLEARING



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED  
FOR -L- PROFILE SEE SHT. 47

**PLANS PREPARED BY :**  
**RK&K**  
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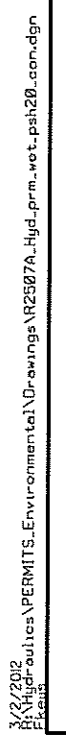
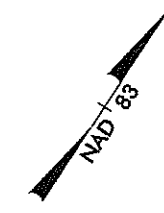


ENGLISH

AVATION  
AND

DENOTES FILL IN  
WETLAND

DENOTES MECHANIZED  
CLEARING

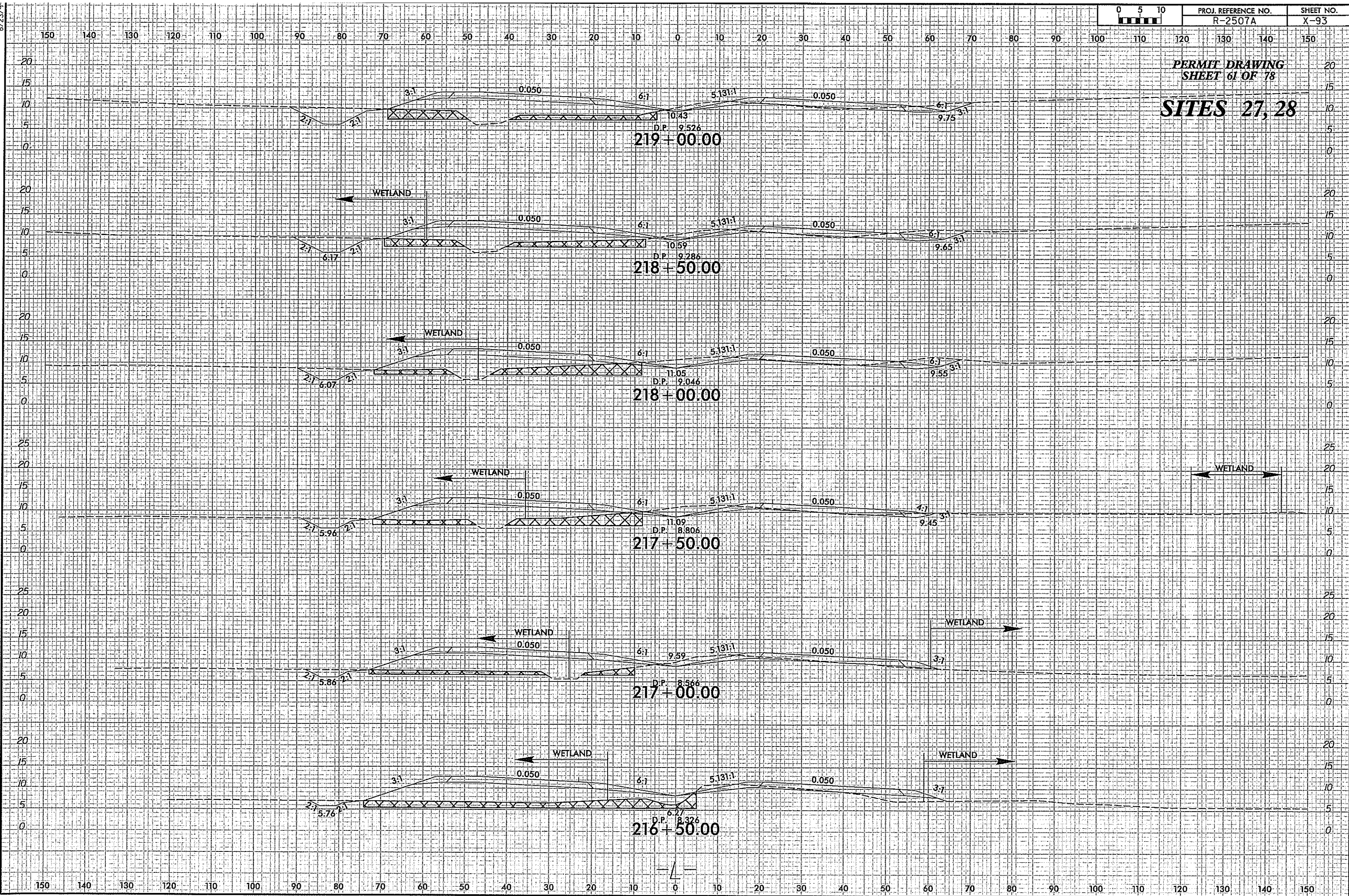


**PLANS PREPARED BY :**  
**RK & K**  
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R-2507A

PERMIT DRAWING  
SHEET 61 OF 78

SITES 27, 28

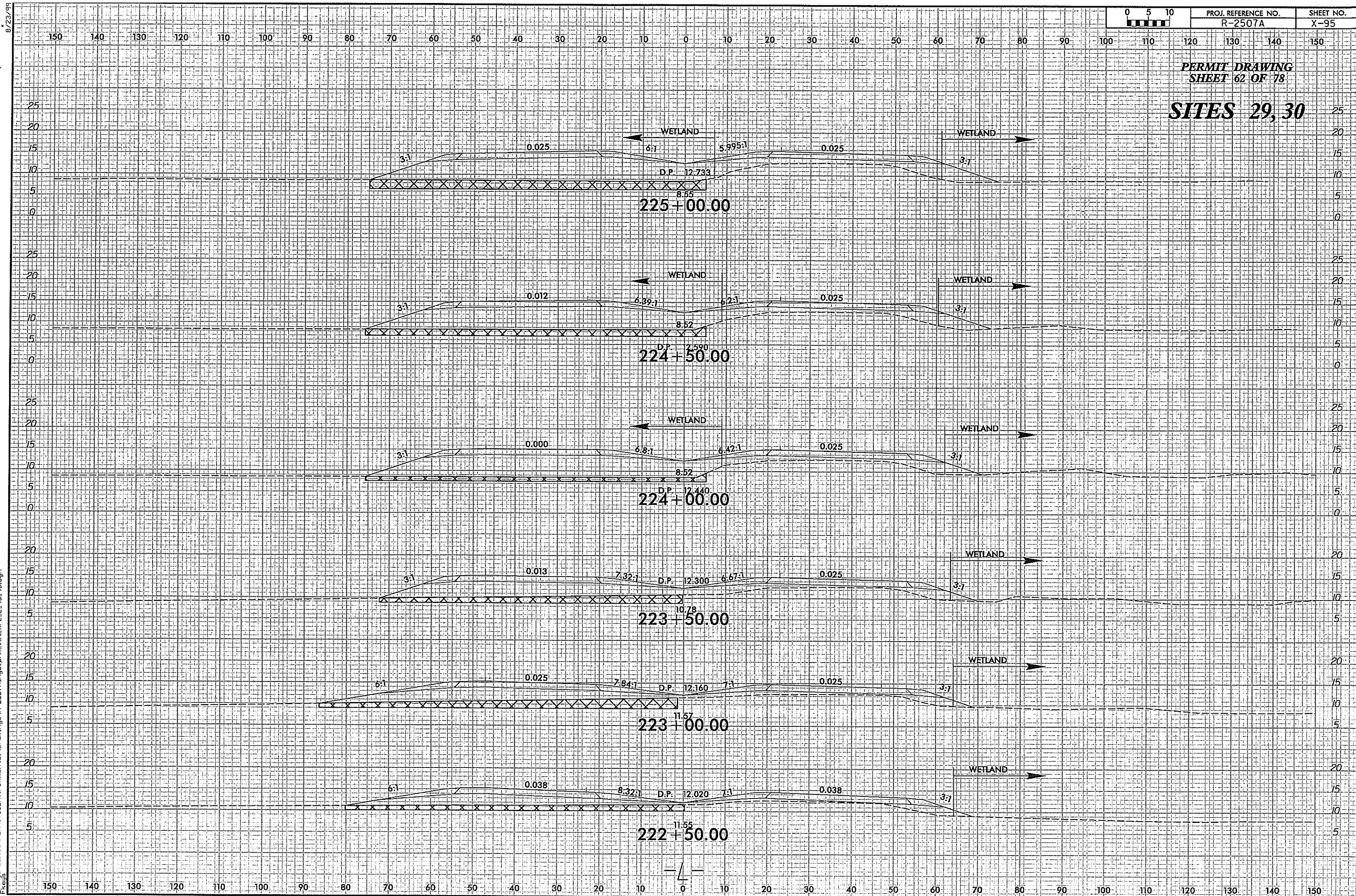




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3/2/2012  
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Kells

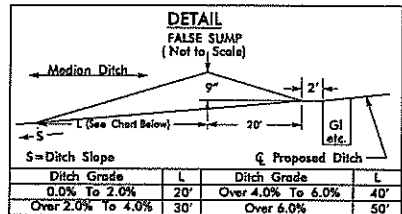
PERMIT DRAWING  
SHEET 62 OF 78

SITES 29, 30



8/17/99

3/2/2012  
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RKL



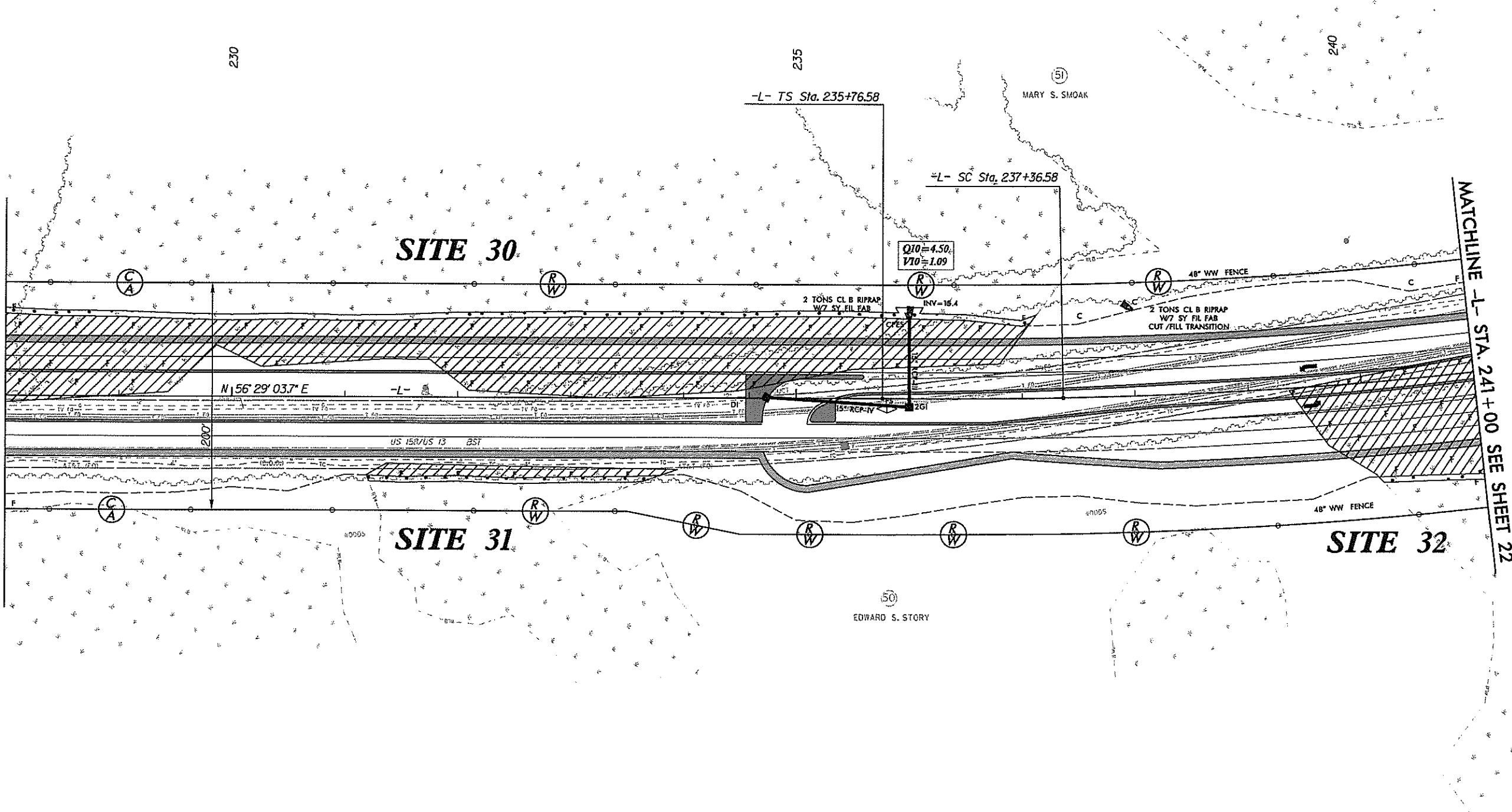
/// DENOTES FILL IN  
WETLAND

.... DENOTES MECHANIZED  
CLEARING



PROJECT REFERENCE NO.	SHEET NO.
R-2507A	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT SHEET	DRAWING 63 OF 78

MATCHLINE -L- STA. 228+00 SEE SHEET 20



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULB DETAILS SEE SHEET 2H

FOR -L- PROFILE SEE SHTS. 47 & 48

PLANS PREPARED BY :

**RK&K**

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3/2/2012  
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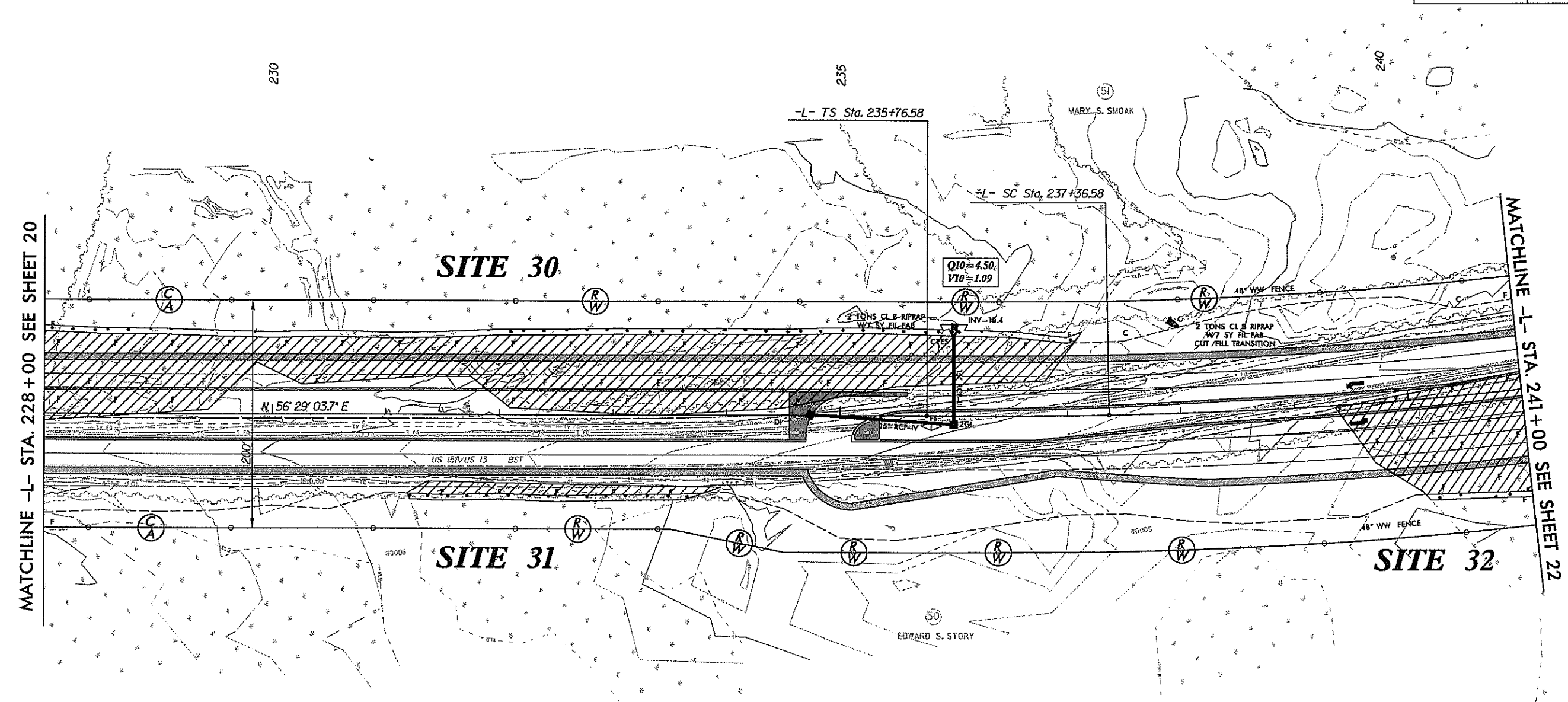
DETAIL  
FALSE SUMP  
(Not to Scale)

S=Ditch Slope		L (See Chart Below)		Proposed Ditch	
Ditch Grade	L	Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'		
Over 2.0% To 4.0%	30'	Over 6.0%	50'		

Denotes Fill In Wetland  
Denotes Mechanized Clearing



PROJECT REFERENCE NO. R-2507A		SHEET NO. 21	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
PERMIT SHEET		DRAWING 64 OF 78	



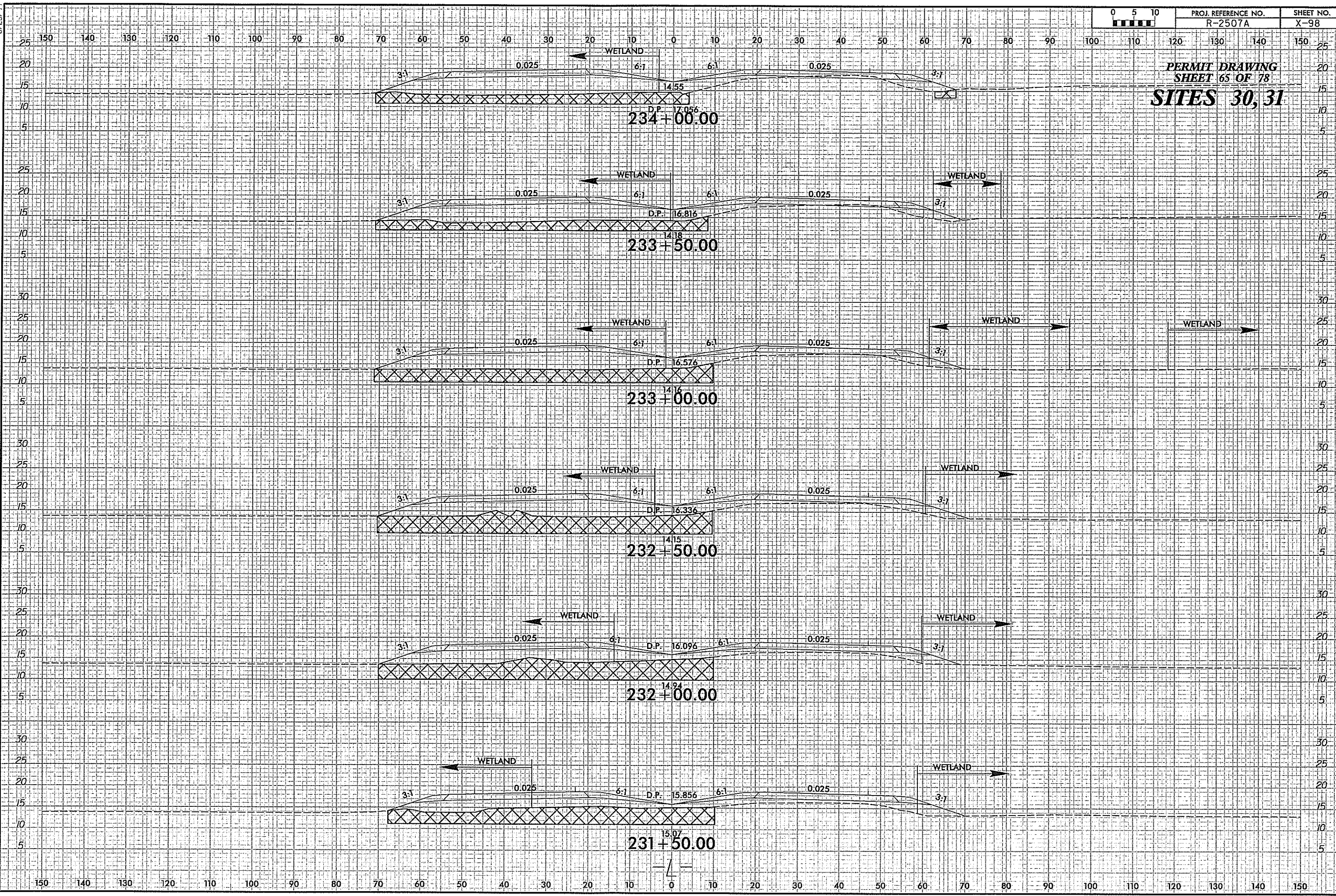
ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED  
FOR BULB DETAILS SEE SHEET 2H  
FOR -L- PROFILE SEE SHTS. 47 & 48

PLANS PREPARED BY :

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

8/23/99

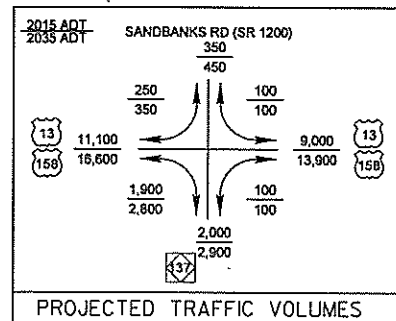
PERMIT DRAWING  
SHEET 65 OF 78  
**SITES 30, 31**





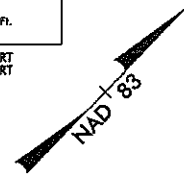
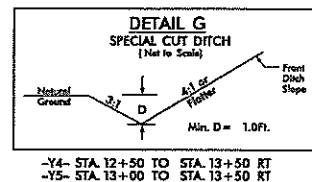
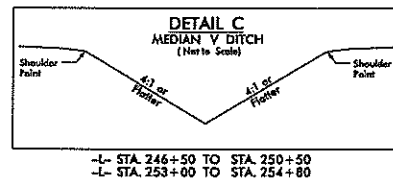
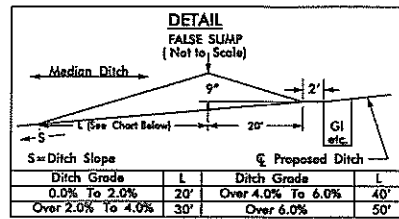
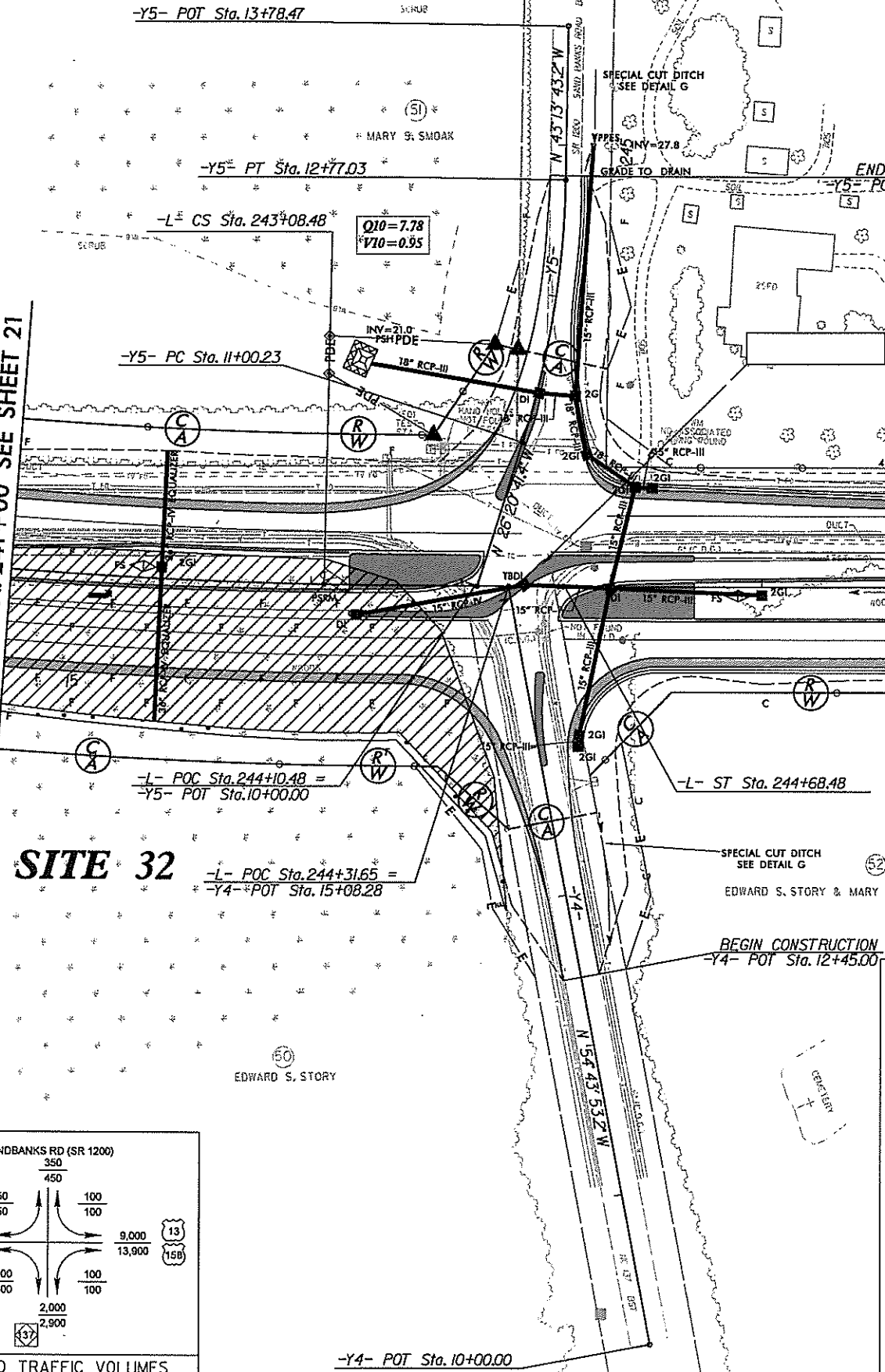
8/17/99

8/2/2002  
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MATCHLINE -L- STA. 241+00 SEE SHEET 21

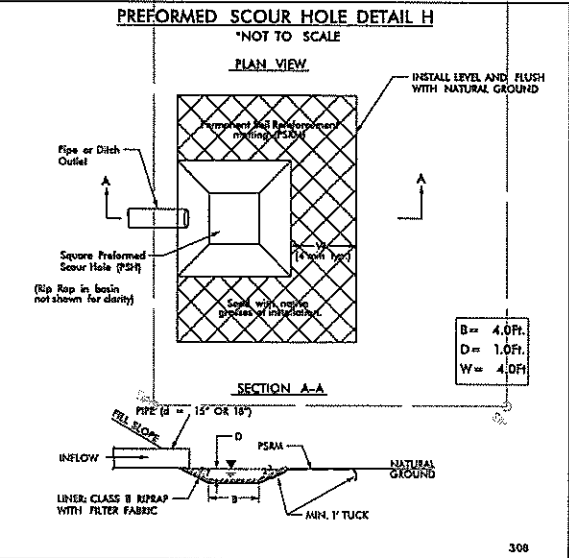
**SITE 32**



PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO. <b>22</b>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			
<b>PERMIT SHEET</b>		<b>DRAWING SHEET 66 OF 78</b>	



MATCHLINE -L- STA. 254+00 SEE SHEET 23

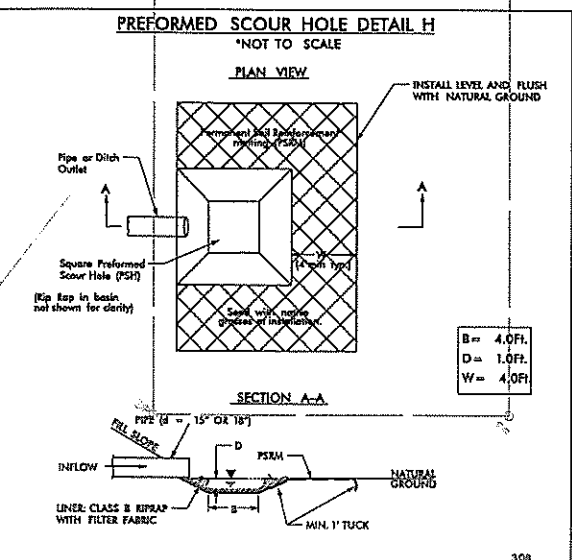
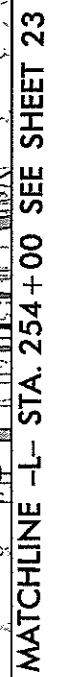
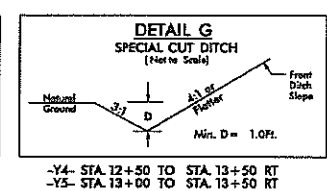


FOR INTERSECTION DETAILS  
SEE SHEET 2M

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT. 48  
FOR -Y4- PROFILE SEE SHT. 40  
FOR -Y5- PROFILE SEE SHT. 61

**PLANS PREPARED BY :**  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
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NC LICENSE NO. P-0112 • (919) 878-9560

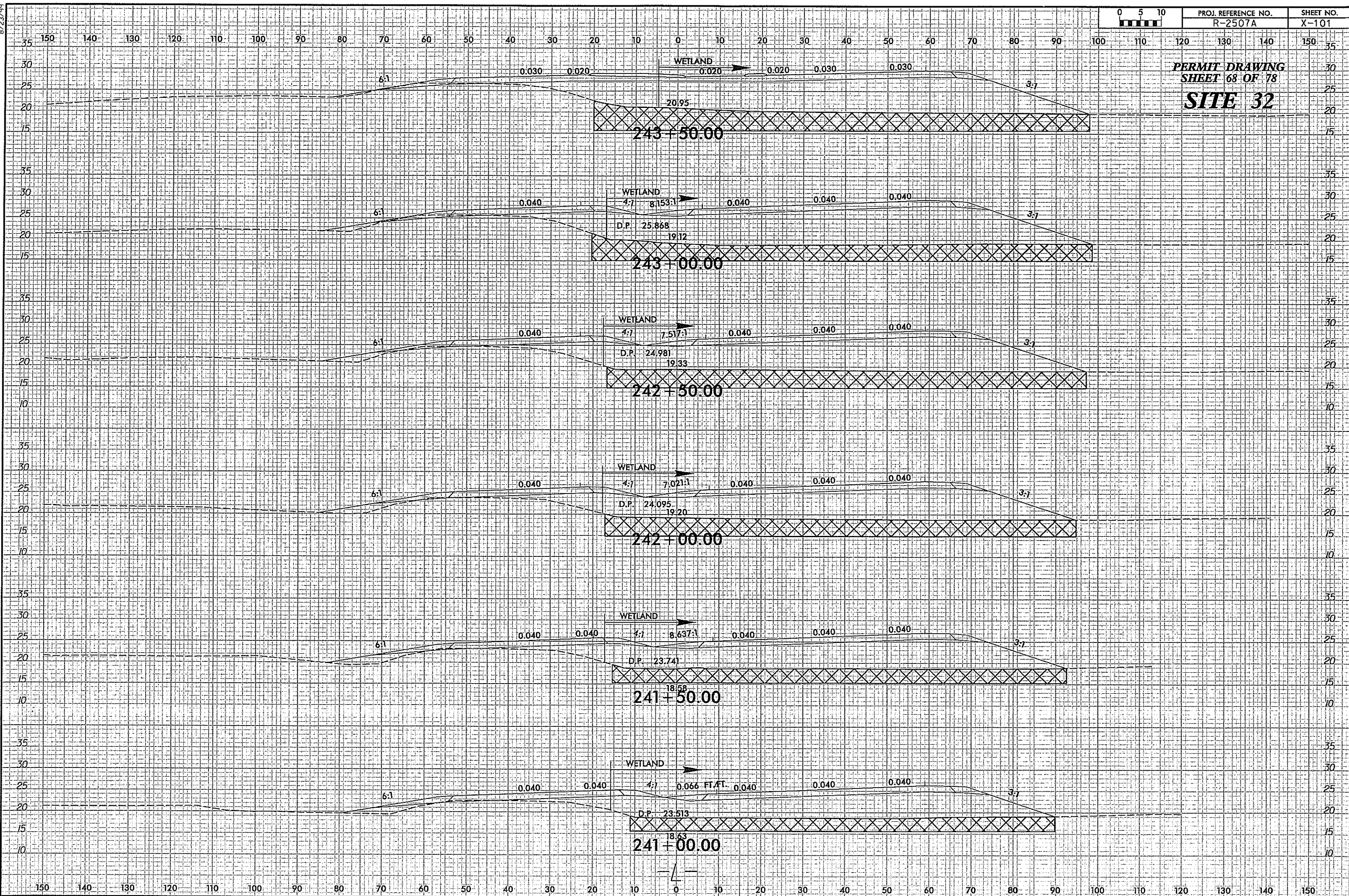


**PLANS PREPARED BY :**  
**RKK**  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 • (919) 878-9560

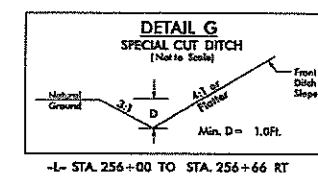
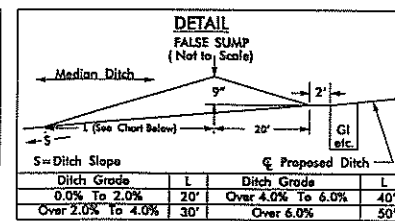
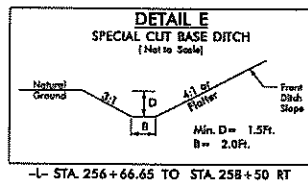
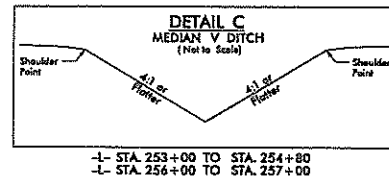


8/23/99  
3/2/2012  
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PERMIT DRAWING  
SHEET 68 OF 78  
**SITE 32**



8/17/99



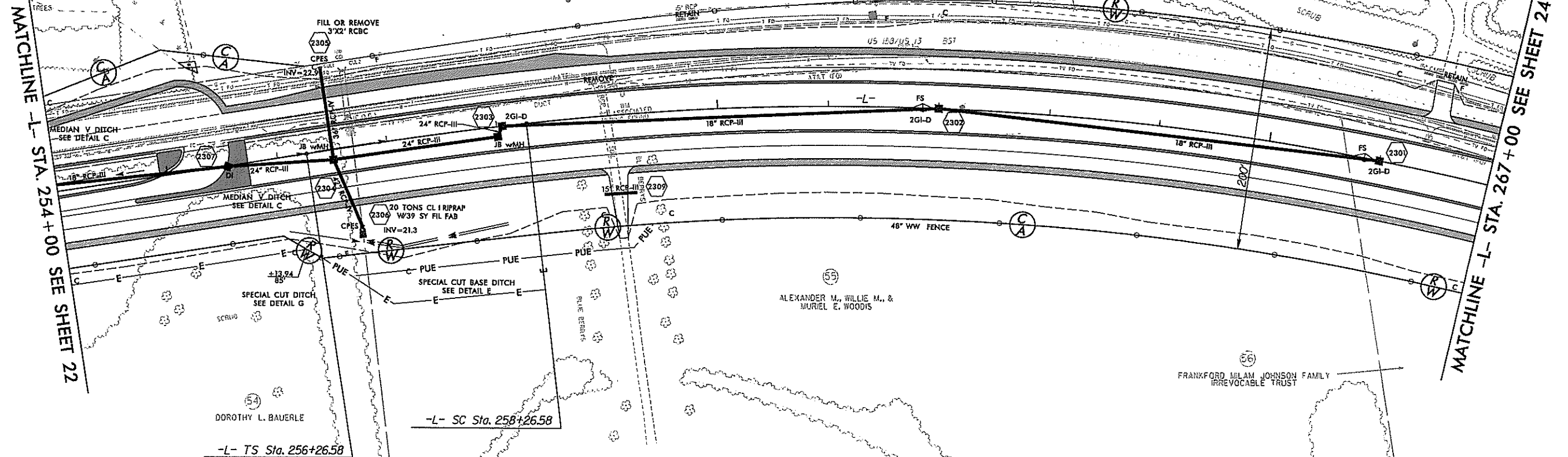
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RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
PERMIT SHEET		DRAWING 69 OF 78	



**SITE 33**

MATCHLINE -L- STA. 254+00 SEE SHEET 22

MATCHLINE -L- STA. 267+00 SEE SHEET 24



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULB DETAILS SEE SHEET 2H

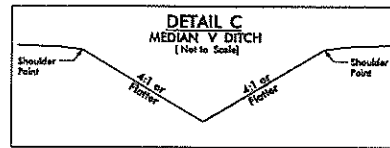
FOR -L- PROFILE SEE SHTS. 48 & 49

PLANS PREPARED BY :

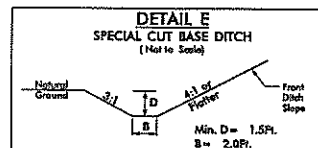
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560



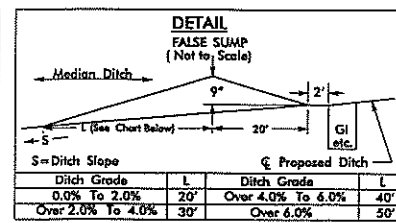
8/17/99



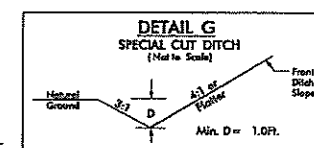
-L- STA. 253+00 TO STA. 254+80  
-L- STA. 256+00 TO STA. 257+00



-L- STA. 256+66.65 TO STA. 258+50 RT

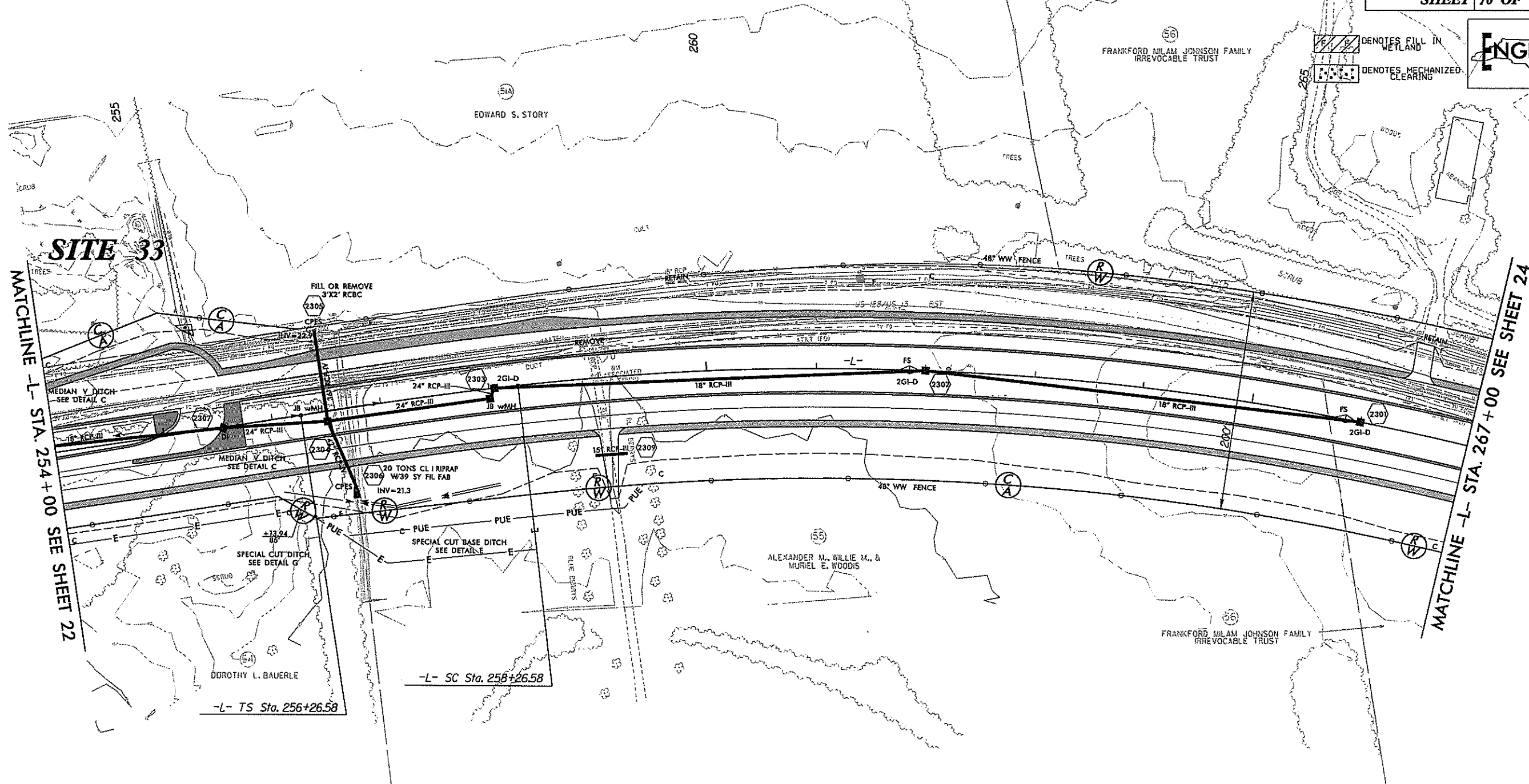


Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



-L- STA. 256+00 TO STA. 256+66 RT

PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO. <b>23</b>
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION		
<b>PERMIT DRAWING</b> <b>SHEET 70 OF 78</b>		



**SITE 33**

MATCHLINE -L- STA. 254+00 SEE SHEET 22

MATCHLINE -L- STA. 267+00 SEE SHEET 24

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED  
FOR BULB DETAILS SEE SHEET 2H  
FOR -L- PROFILE SEE SHTS. 48 & 49

PLANS PREPARED BY :  
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NC LICENSE NO. F-0112 • (919) 878-9560

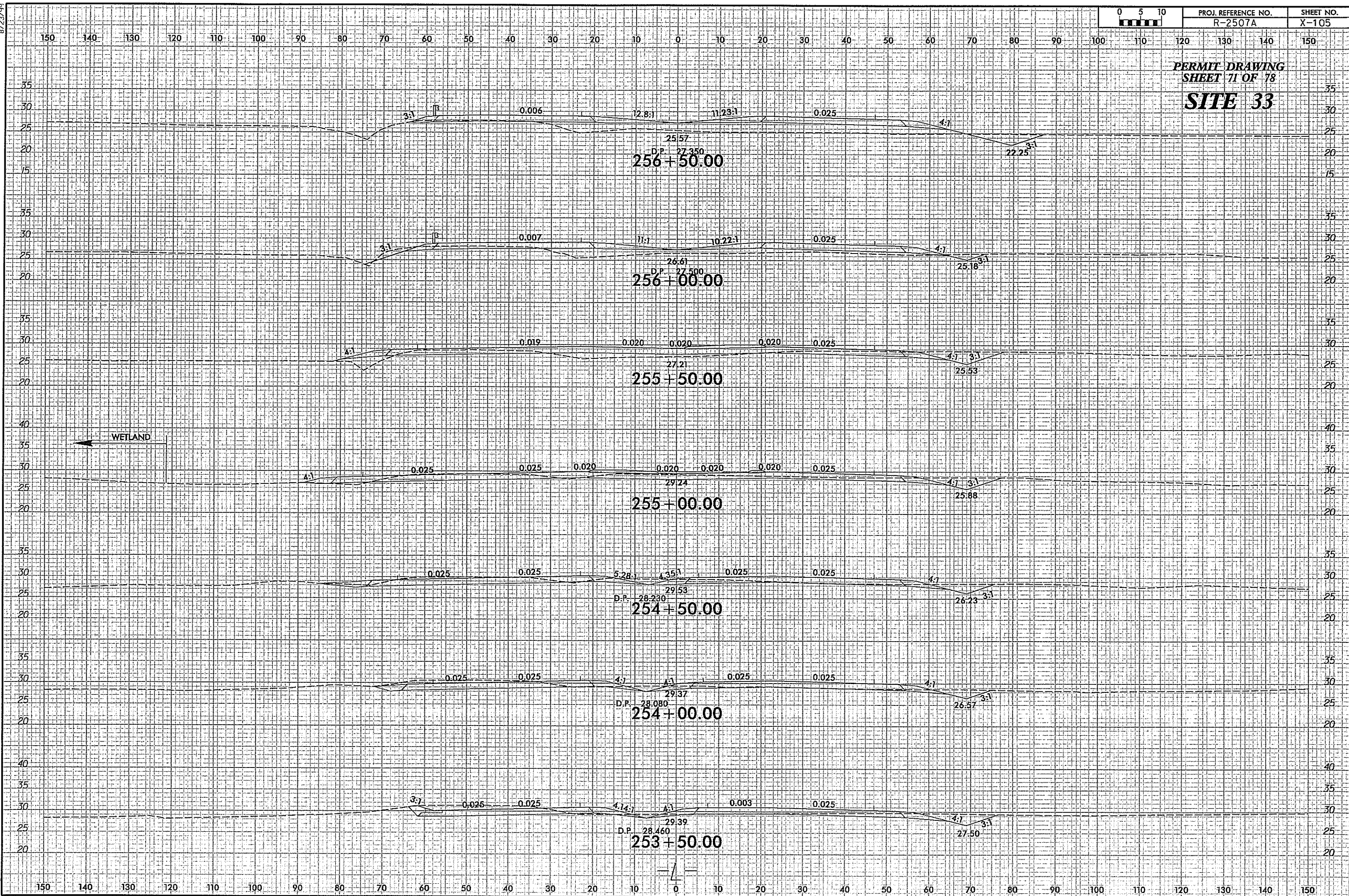
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8/23/99  
3/2/2012  
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Pkous



PROJ. REFERENCE NO.	SHEET NO.
R-2507A	X-105

PERMIT DRAWING  
SHEET 71 OF 78  
**SITE 33**





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B/17/99

PROJECT REFERENCE NO.  
R-2507A

SHEET NO.  
25

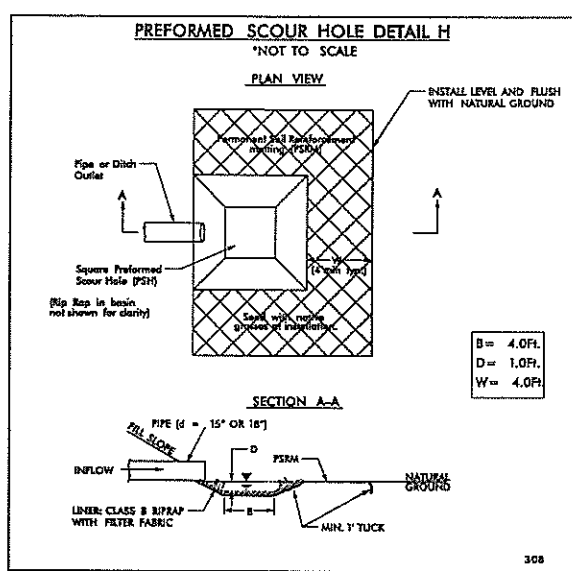
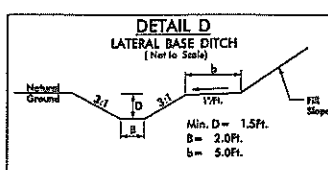
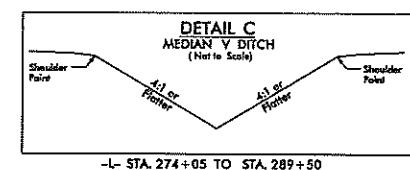
R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

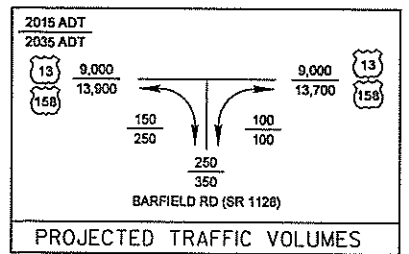
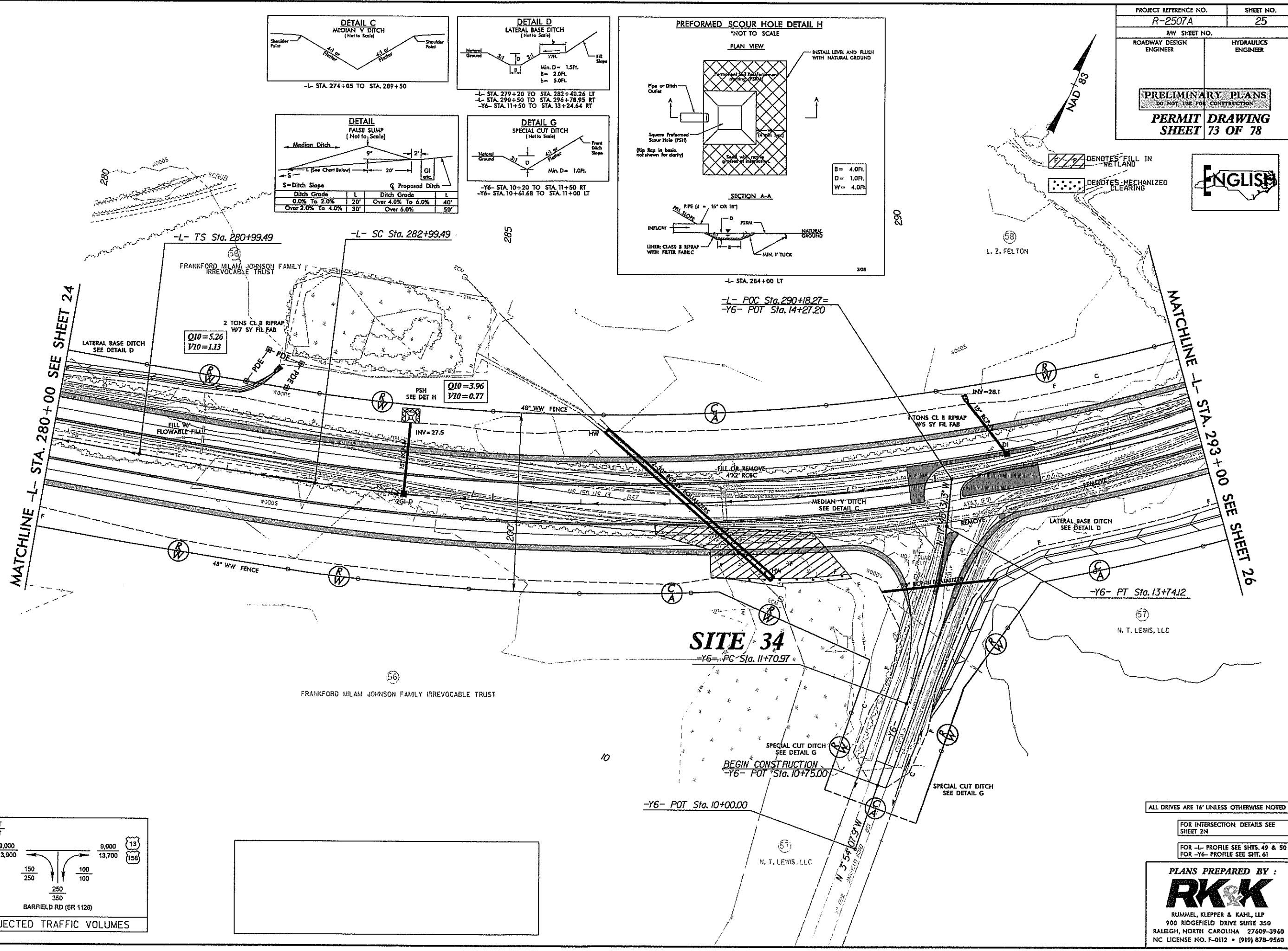
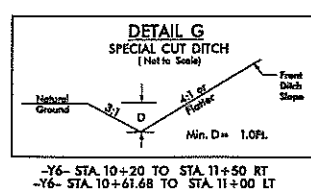
PERMIT DRAWING  
SHEET 73 OF 78



**DETAIL F**  
FALSE SUMP  
(Not to Scale)

S= Ditch Slope  
Ditch Grade  
0.0% To 2.0% 20'  
Over 2.0% To 4.0% 30'

Proposed Ditch  
Ditch Grade  
Over 4.0% To 6.0% 40'  
Over 6.0% 50'



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR INTERSECTION DETAILS SEE SHEET 2N

FOR -L- PROFILE SEE SHTS. 49 & 50  
FOR -Y6- PROFILE SEE SHT. 61

PLANS PREPARED BY:

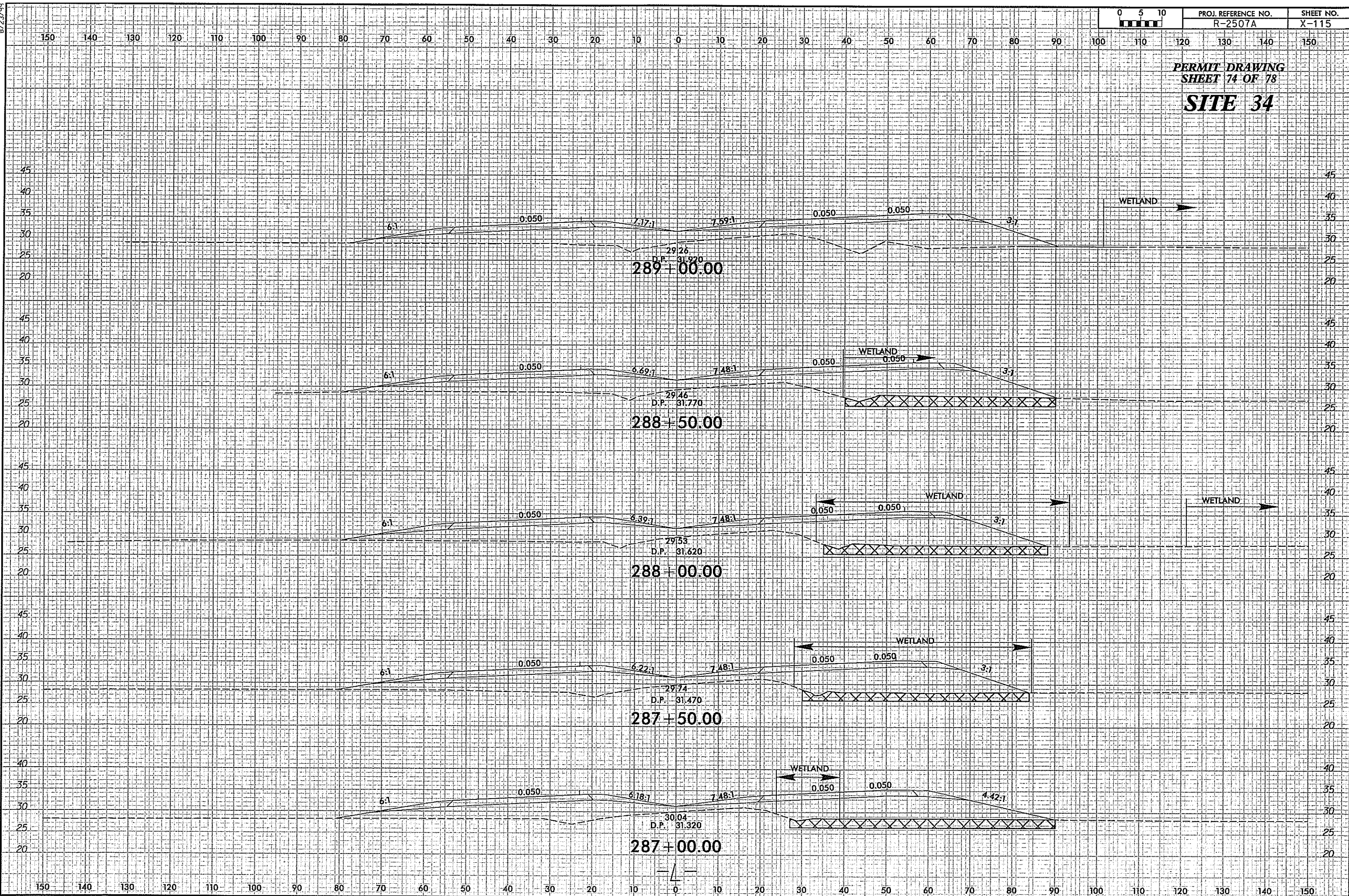
**RK&K**

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900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

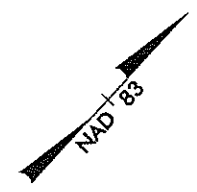
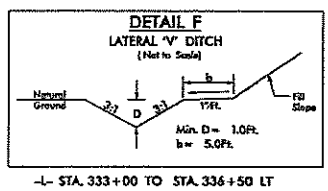
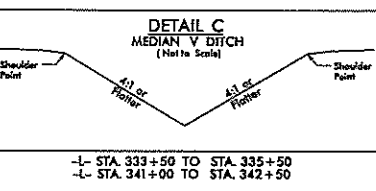
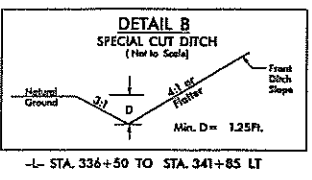
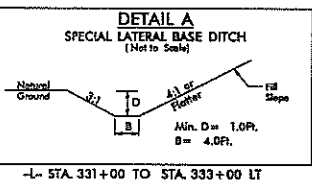
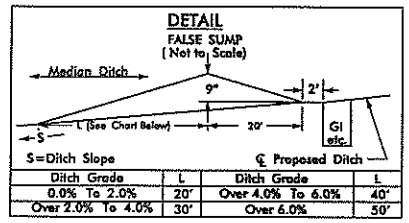
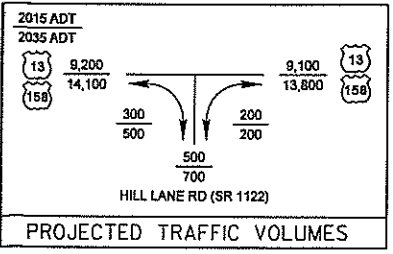
3/2/2012  
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8/23/99  
3/2/2012  
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Kous



8/17/99



PROJECT REFERENCE NO.  
R-2507A

SHEET NO.  
29

RW SHEET NO.

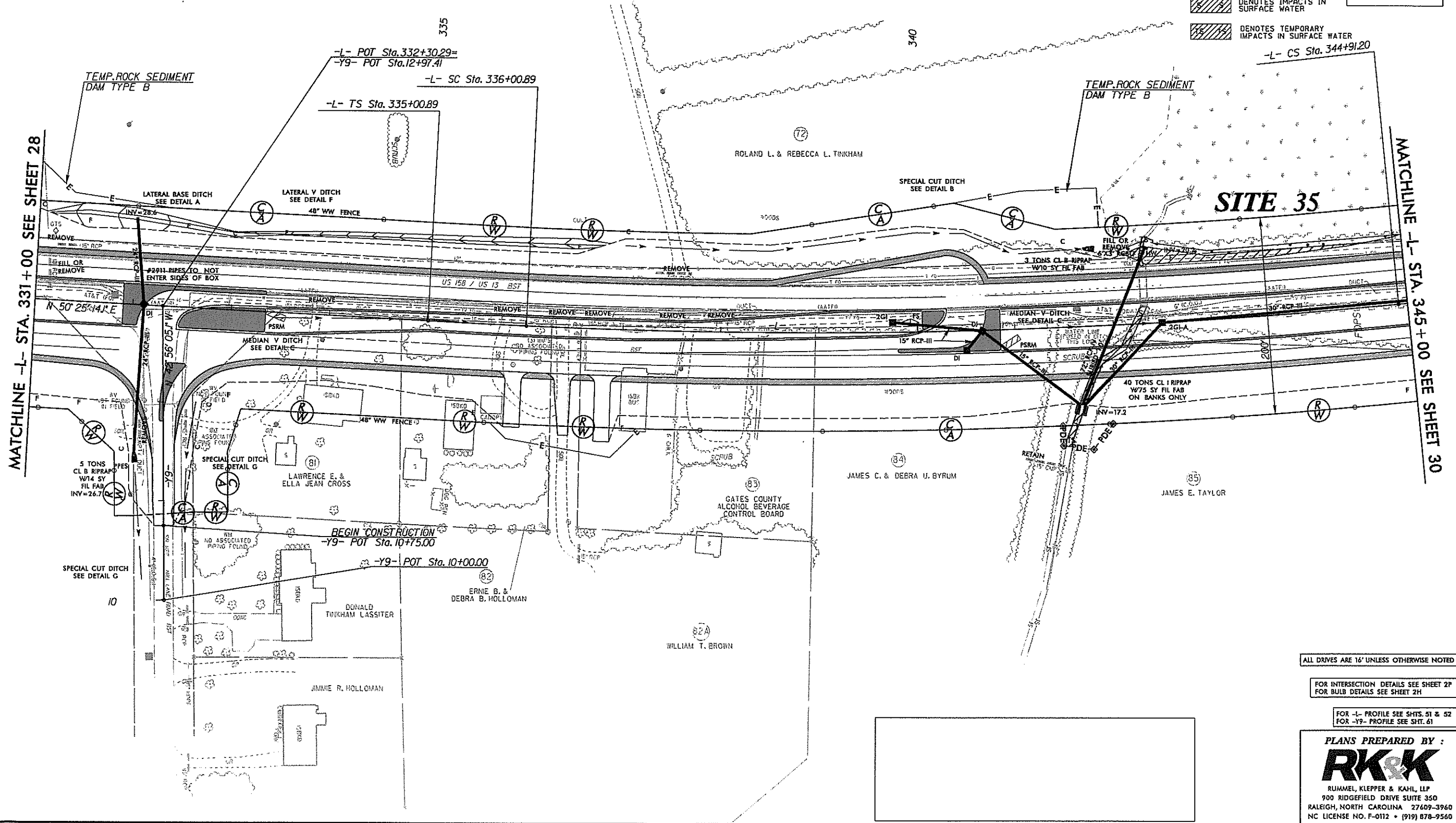
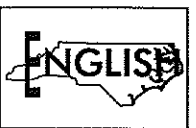
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

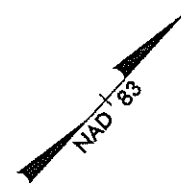
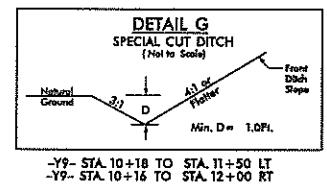
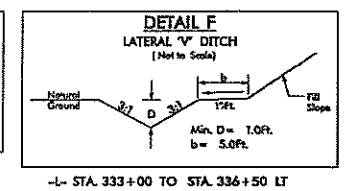
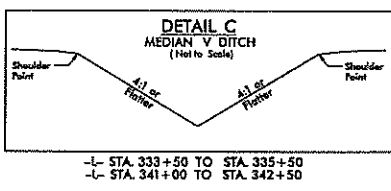
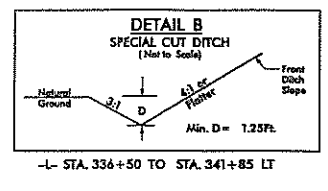
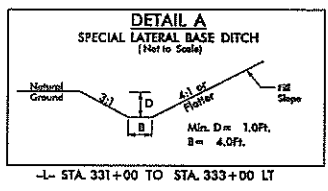
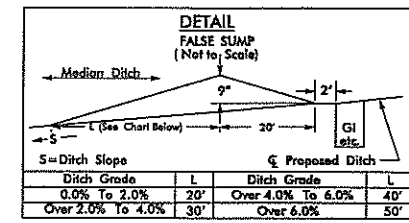
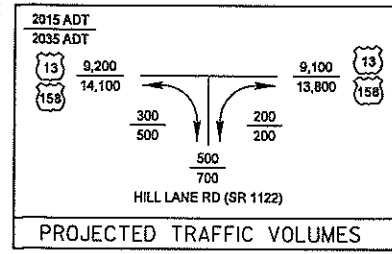
PERMIT DRAWING  
SHEET 75 OF 78

- Denotes Fill in Wetland
- Denotes Mechanized Clearing
- Denotes Impacts in Surface Water
- Denotes Temporary Impacts in Surface Water





8/17/99



PROJECT REFERENCE NO.  
R-2507A

SHEET NO.  
29

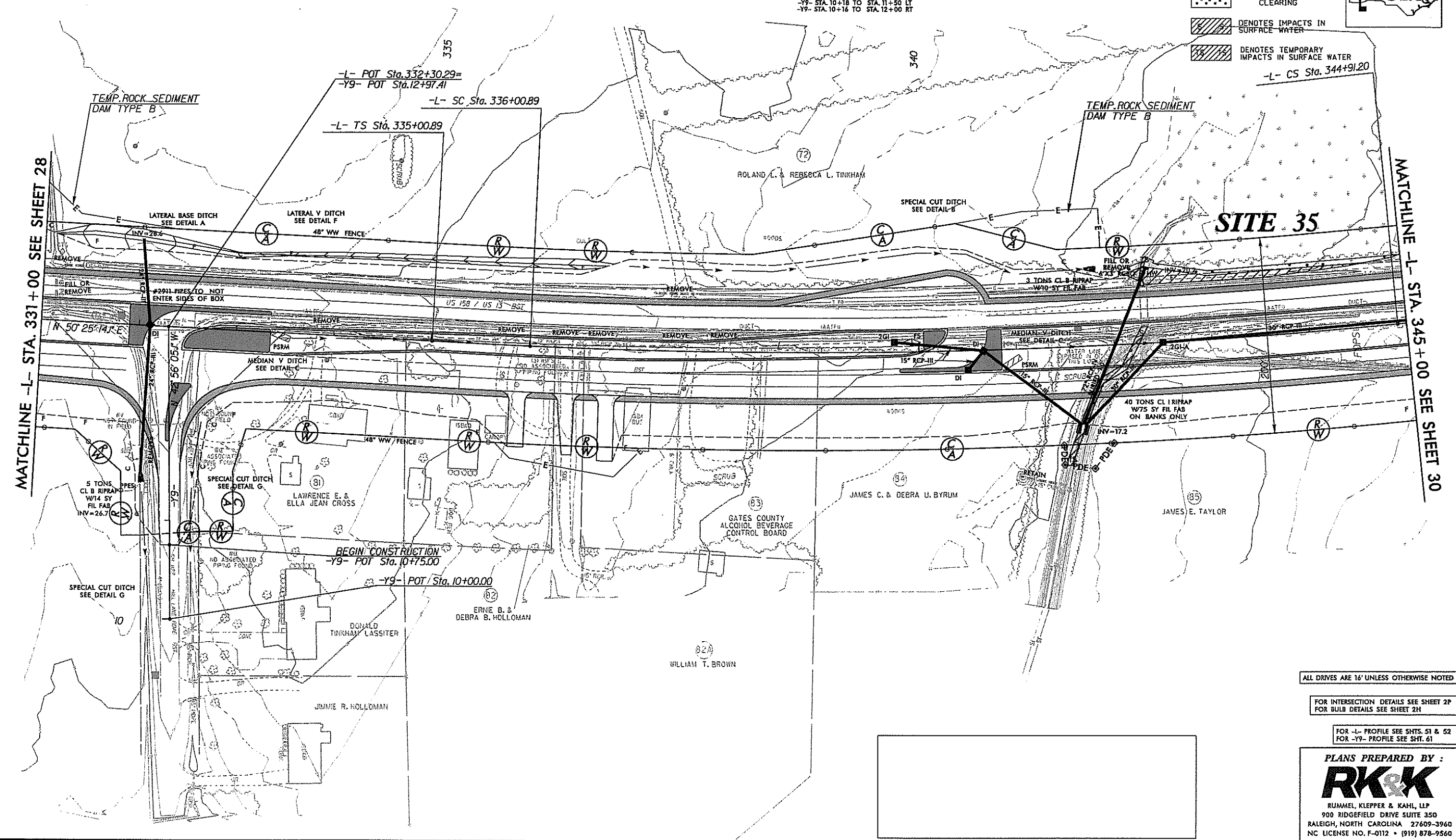
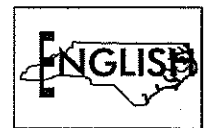
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING  
SHEET 76 OF 78

- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR INTERSECTION DETAILS SEE SHEET 2P  
FOR BULB DETAILS SEE SHEET 2H

FOR -L- PROFILE SEE SHTS. 51 & 52  
FOR -Y9- PROFILE SEE SHT. 61

PLANS PREPARED BY :

**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

3/2/2012  
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2012  
R-2507A\_Hyd\_prm\_wet\_XPL\_Site35.dgn

82399

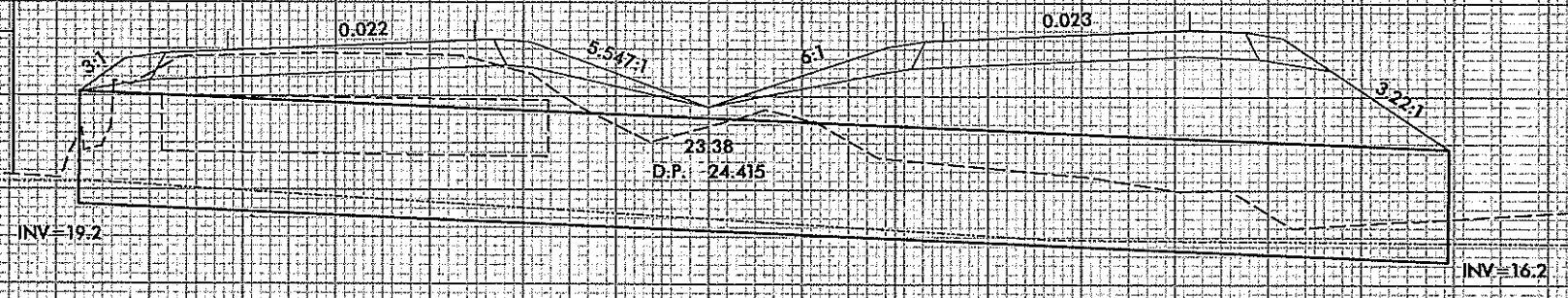
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	R-2507A	X-186

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**PERMIT DRAWING**  
**SHEET 77 OF 78**

**SITE 35**  
**-L- 342+00.97**

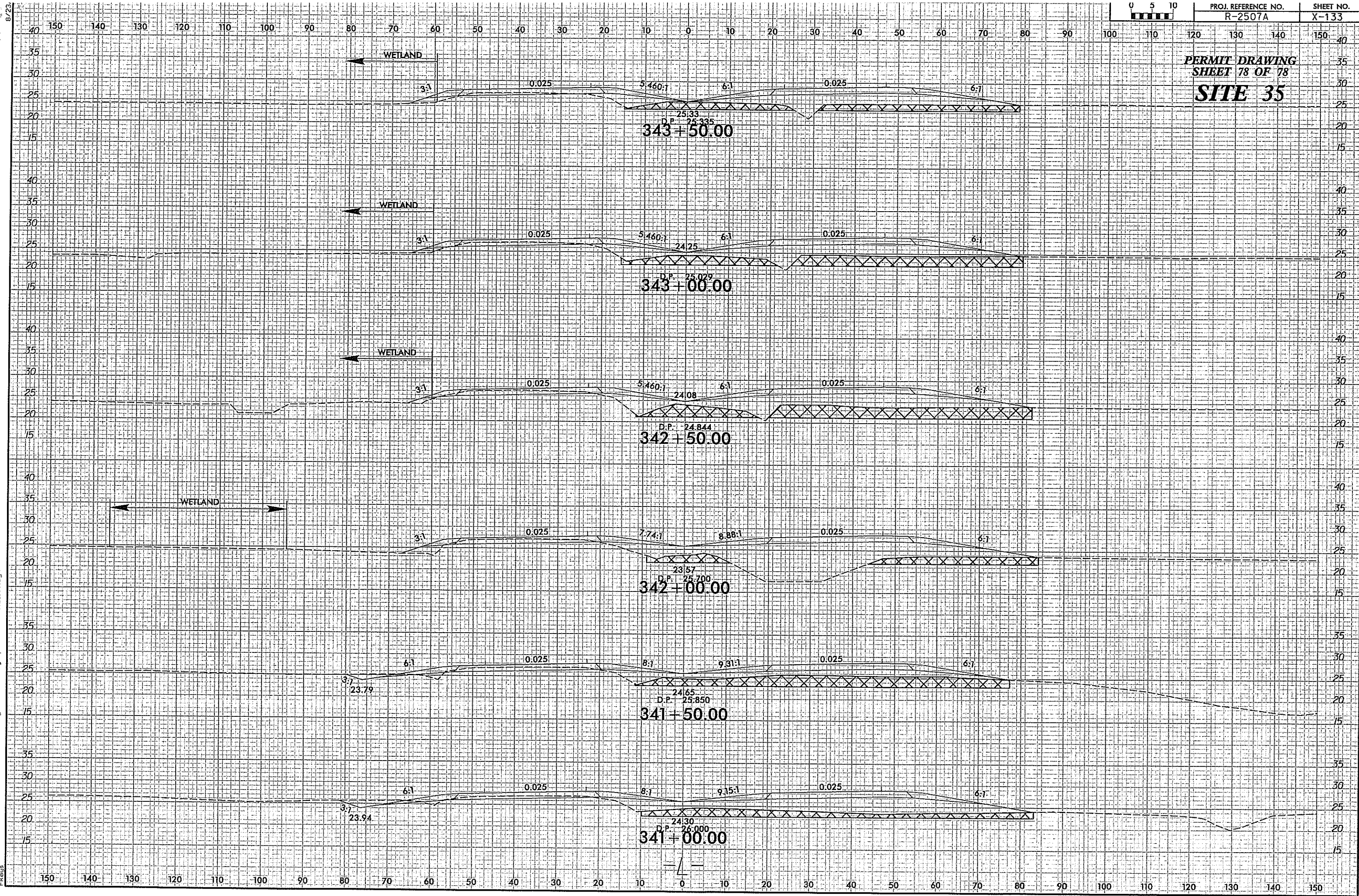
**WETLAND**



**PROP. 72" RCP**  
**BURIED 1.0'**

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



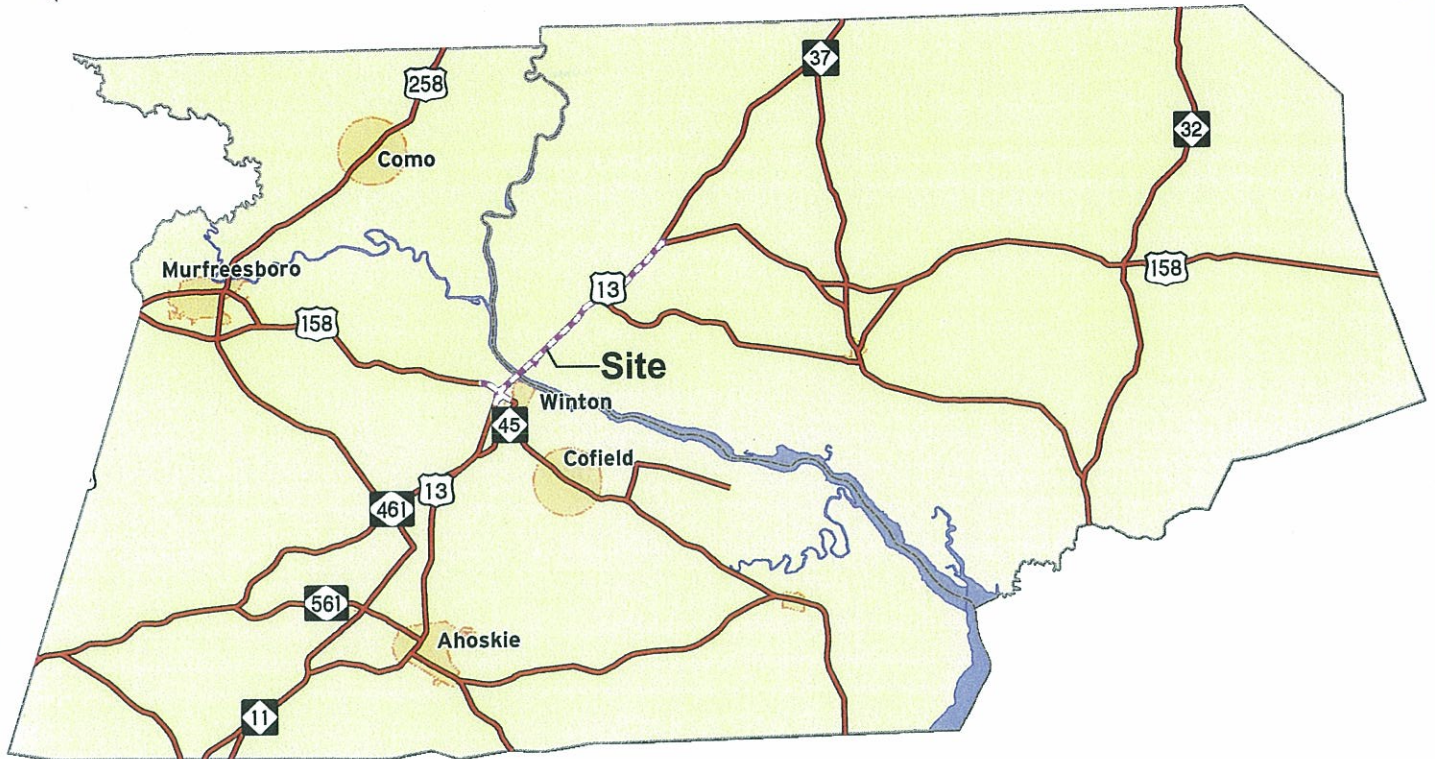


PERMIT DRAWING  
SHEET 78 OF 78  
SITE 35

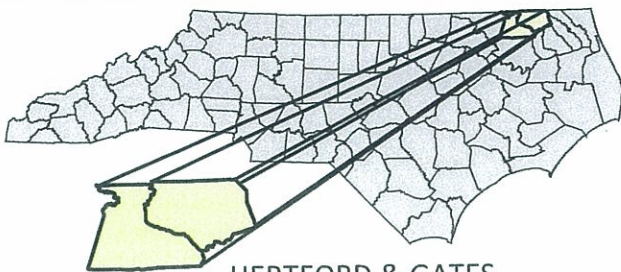
PROJ. REFERENCE NO.  
R-2507A

SHEET NO.  
X-133





## VICINITY MAP



HERTFORD & GATES

## NCDOT

DIVISION OF HIGHWAYS  
HERTFORD AND GATES COUNTIES

PROJECT: C202616 (R-2507A)  
US 13 / US 158 WIDENING  
UTILITY PERMIT DRAWINGS

SHEET 1





# LOCATION

**NCDOT**  
DIVISION OF HIGHWAYS  
HERTFORD AND GATES COUNTIES

PROJECT: C202616 (R-2507A)  
US 13 / US 158 WIDENING  
UTILITY PERMIT DRAWINGS

SHEET 2



## WETLAND PERMIT IMPACT SUMMARY

[illegible]

\*. 11 PERMANENT HANDHOLES AT 6sqft EACH: 0.0015ac  
 \*\*. 2 POLES WILL BE PERMANENT FILL IN WETLAND IMPACT

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
HERTFORD AND GATES COUNTIES  
PROJECT: C202616 (R-2507A)

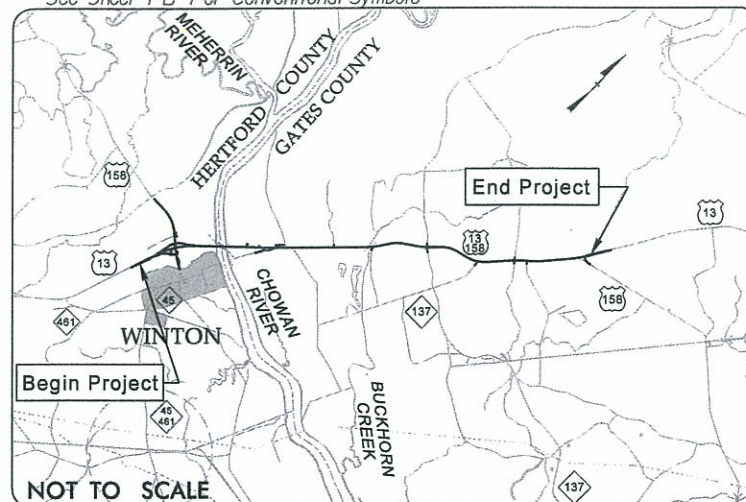
UTILITY PERMIT DRAWING SHEET 3-UTIL OF 19



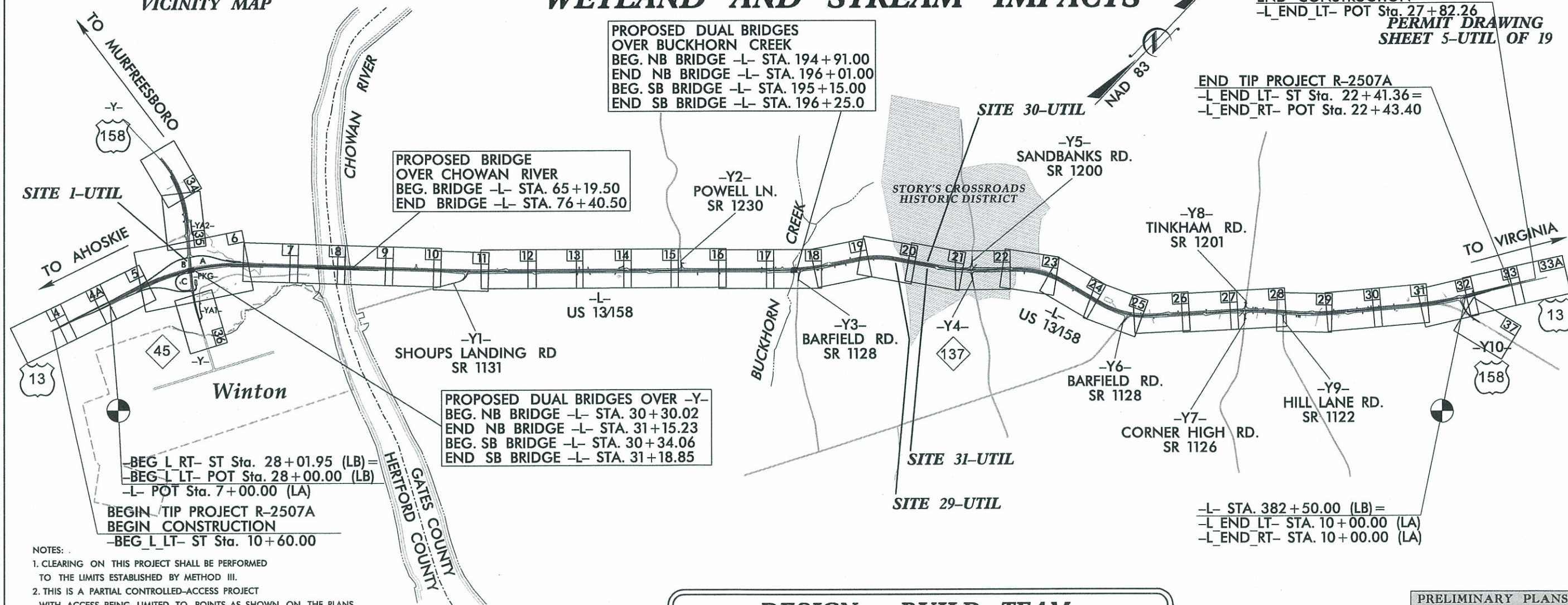
PROP. NO.	PROPERTY OWNER NAME	PROPERTY OWNER ADDRESS
50 51	STORY, EDWARDS S. SMOAK, MARY STORY	471 US 13 S., EURE, NC 27935 2560 62ND AVE N LOT 310, ST. PETERSBURG, FL 33702
UTILITY IMPACTS		
N.C. DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS  HERTFORD AND GATES COUNTIES PROJECT: 35488.3.1 (R-2507A)  UTILITY PERMIT DRAWING SHEET 4-UTIL OF 19		



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



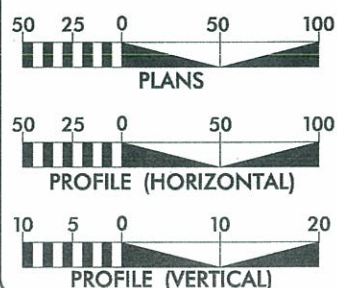
VICINITY MAP



## NOTES:

1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
2. THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
3. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

## GRAPHIC SCALES



## DESIGN DATA

ADT 2015 = 11,200  
ADT 2035 = 16,900  
DHV = 11 %  
D = 55 %  
T = 20 % \*  
V = 60 MPH  
\* TTST 13% DUAL 7%  
FUNC. CLASS =  
RURAL PRINCIPAL ARTERIAL

## PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2507A..... 7.539 mi  
LENGTH STRUCTURE TIP PROJECT R-2507A..... 0.235 mi  
TOTAL LENGTH TIP PROJECT R-2507A..... 7.772 mi

NOTE: LENGTHS BASED ON NORTHBOUND LANES.

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## HERTFORD / GATES COUNTIES

LOCATION: US 13 /US 158 WIDENING FROM US 158 /NC 45  
NEAR WINTON TO THE US 158 BYPASS IN TARHEEL

TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING,  
RESURFACING, GUARDRAIL, & STRUCTURES  
**WETLAND AND STREAM IMPACTS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2507A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
35488.3.1		CONST.	



END CONSTRUCTION  
-L END LT- POT Sta. 27+82.26  
PERMIT DRAWING  
SHEET 5-UTIL OF 19

END TIP PROJECT R-2507A  
-L END LT- ST Sta. 22+41.36=  
-L END RT- POT Sta. 22+43.40

-L STA. 382+50.00 (LB) =  
-L END LT- STA. 10+00.00 (LA)  
-L END RT- STA. 10+00.00 (LA)

### DESIGN - BUILD TEAM

**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE, SUITE 350  
RALEIGH, NORTH CAROLINA 27609  
NC LICENSE NO. P-0112  
1-888-521-4455 OR 919-878-9560

FOR  
DIVISION OF HIGHWAYS

RIGHT OF WAY DATE:

JULY 22, 2011

LETTING DATE:

JULY 22, 2011

J. T. Peacock, Jr., P.E.  
PROJECT ENGINEER

Michael T. Merritt, P.E.  
PROJECT DESIGN ENGINEER

CONTRACTOR :

**ev.williams**  
SITE DEVELOPMENT & HIGHWAY CONSTRUCTION

E.V. WILLIAMS, INC.  
925 S. MILITARY HIGHWAY  
VIRGINIA BEACH, VA 23464

HYDRAULICS ENGINEER

SIGNATURE:

ROADWAY DESIGN  
ENGINEER

SIGNATURE:

P.E.

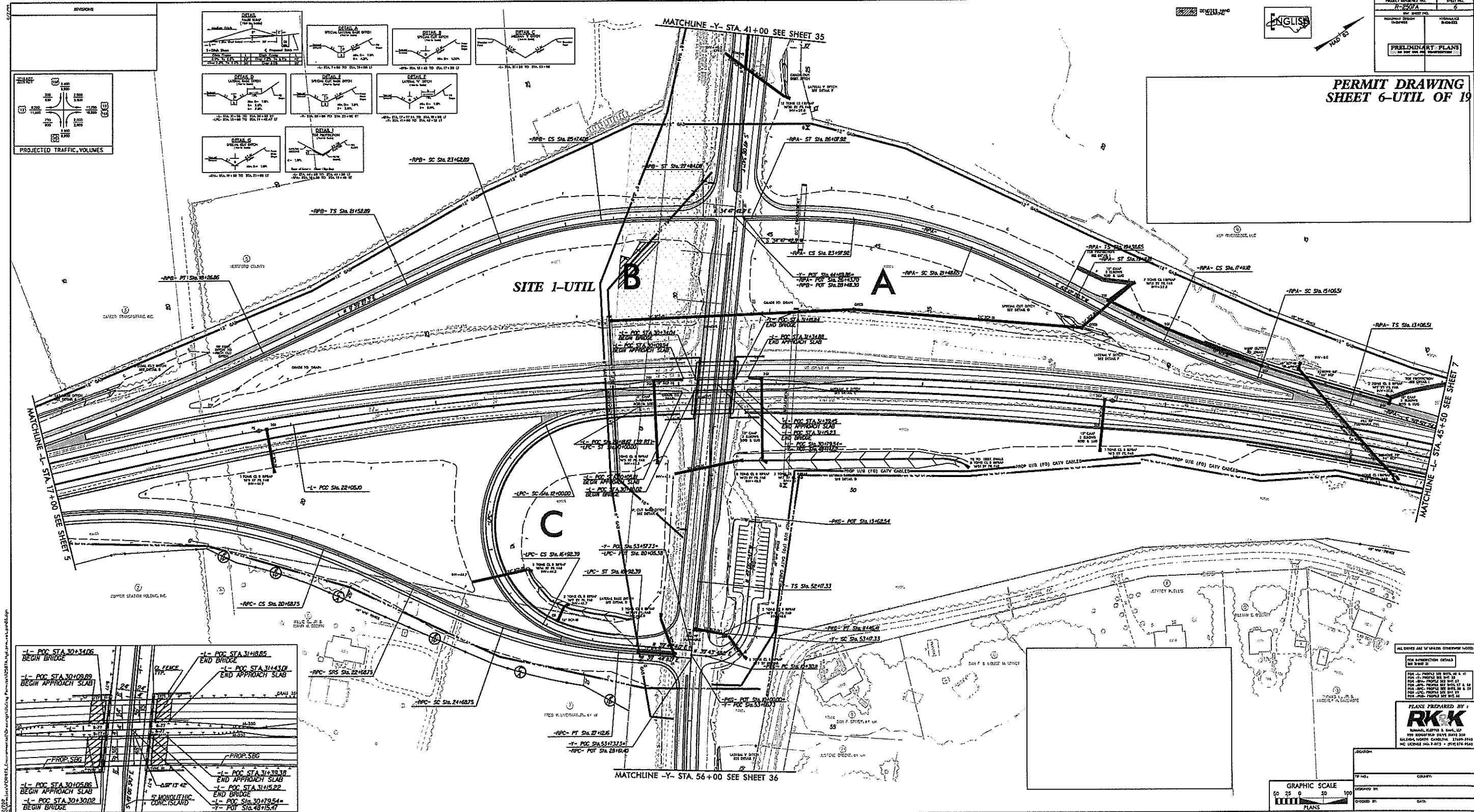
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DO NOT USE FOR CONSTRUCTION

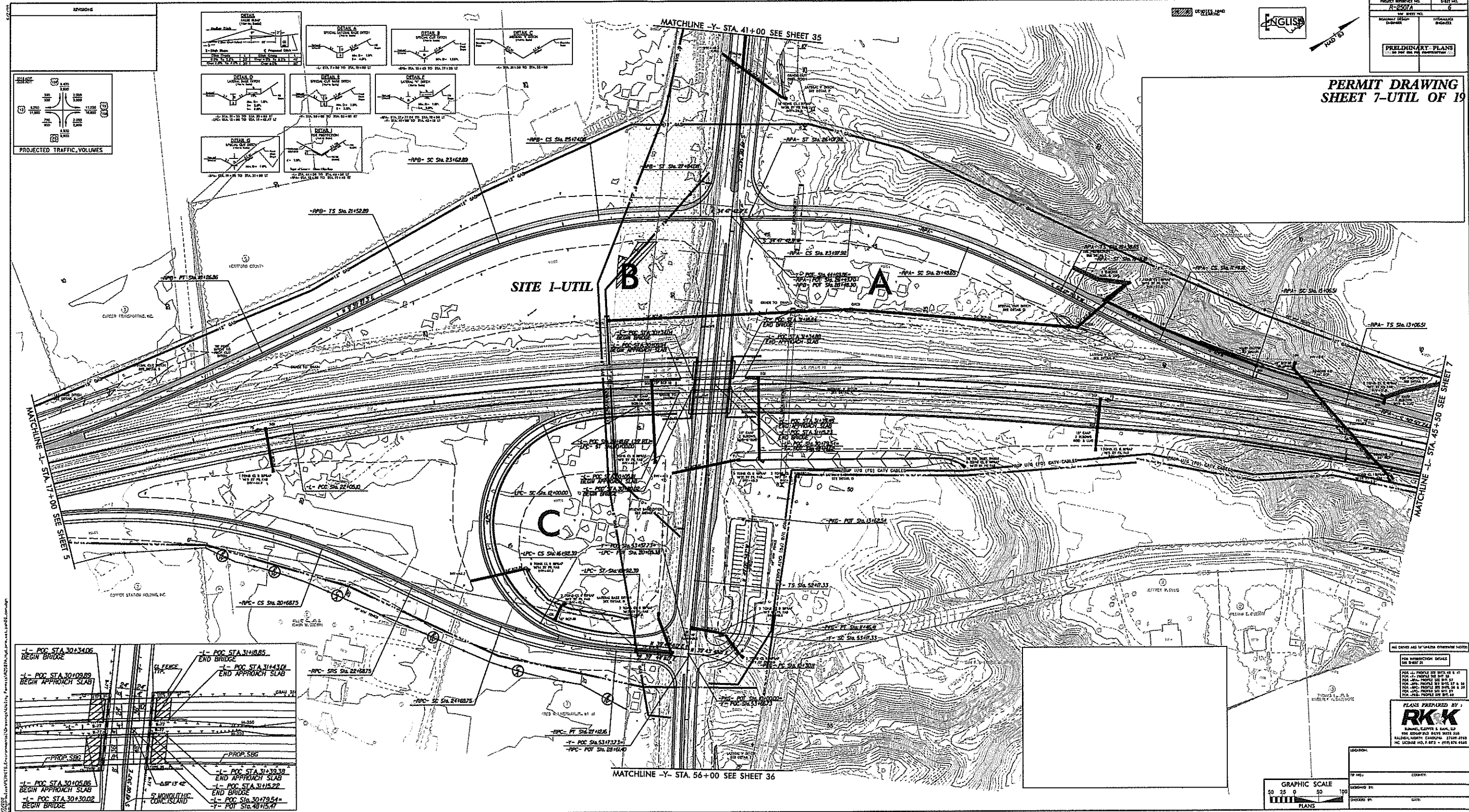


TIP PROJECT: R-2507A

CONTRACT: C202616

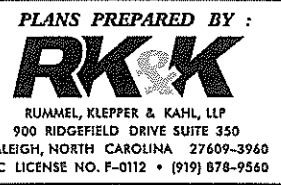








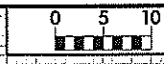






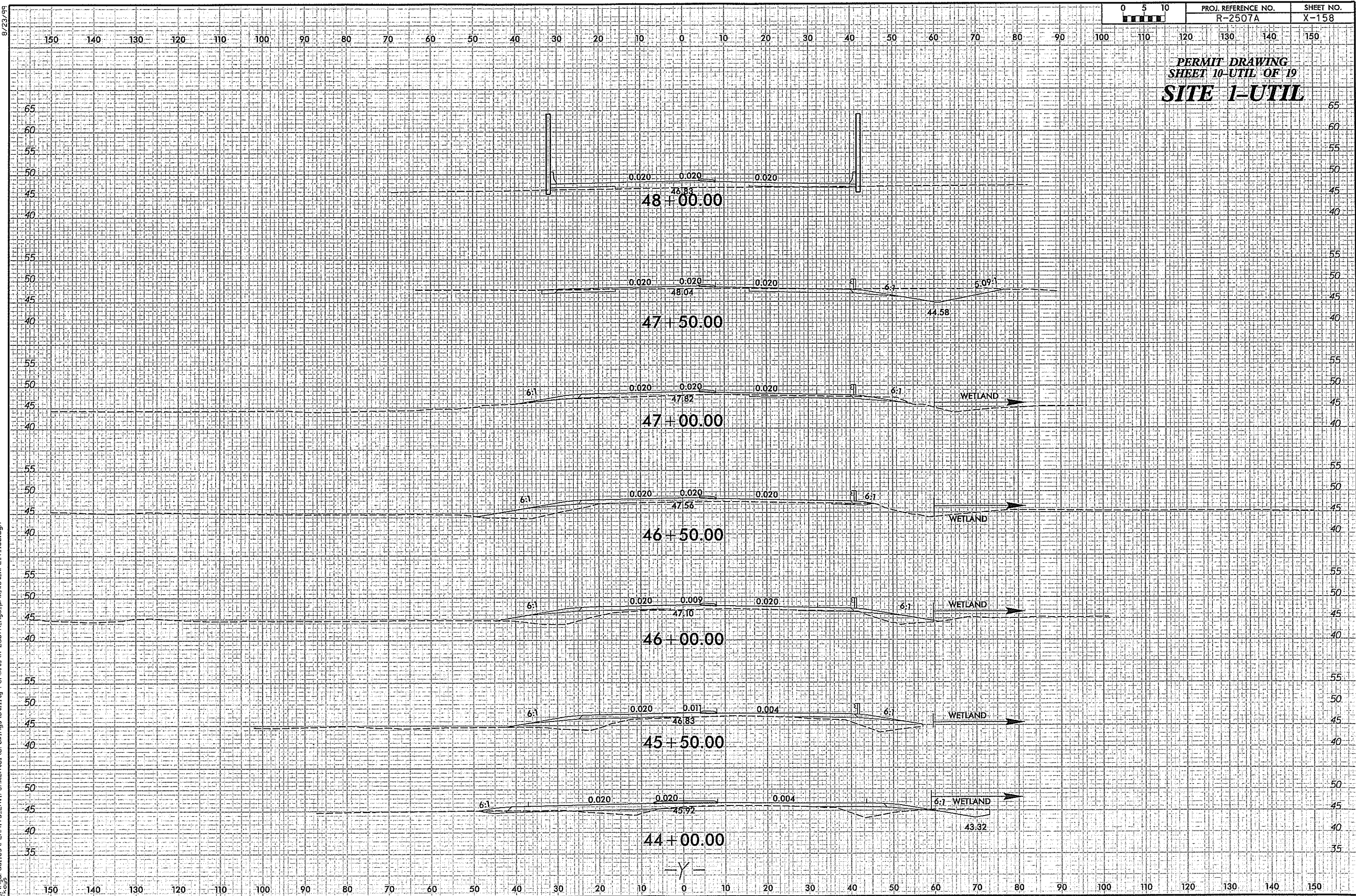
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8/23/99

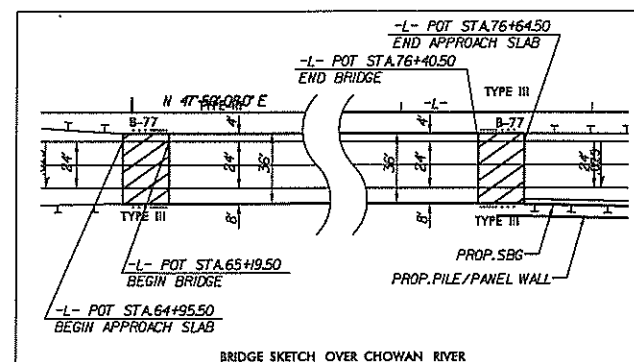


PROJ. REFERENCE NO.	SHEET NO.
R-2507A	X-158

PERMIT DRAWING  
SHEET 10-UTIL OF 19  
**SITE 1-UTIL**



8/27/2012  
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-kens



**DETAIL**  
**FALSE SUMP**  
(Not to Scale)

Median Ditch

9'

2'

5'

L (See Chart Below)

20'

G.I. Slope

S = Ditch Slope

at Proposed Ditch

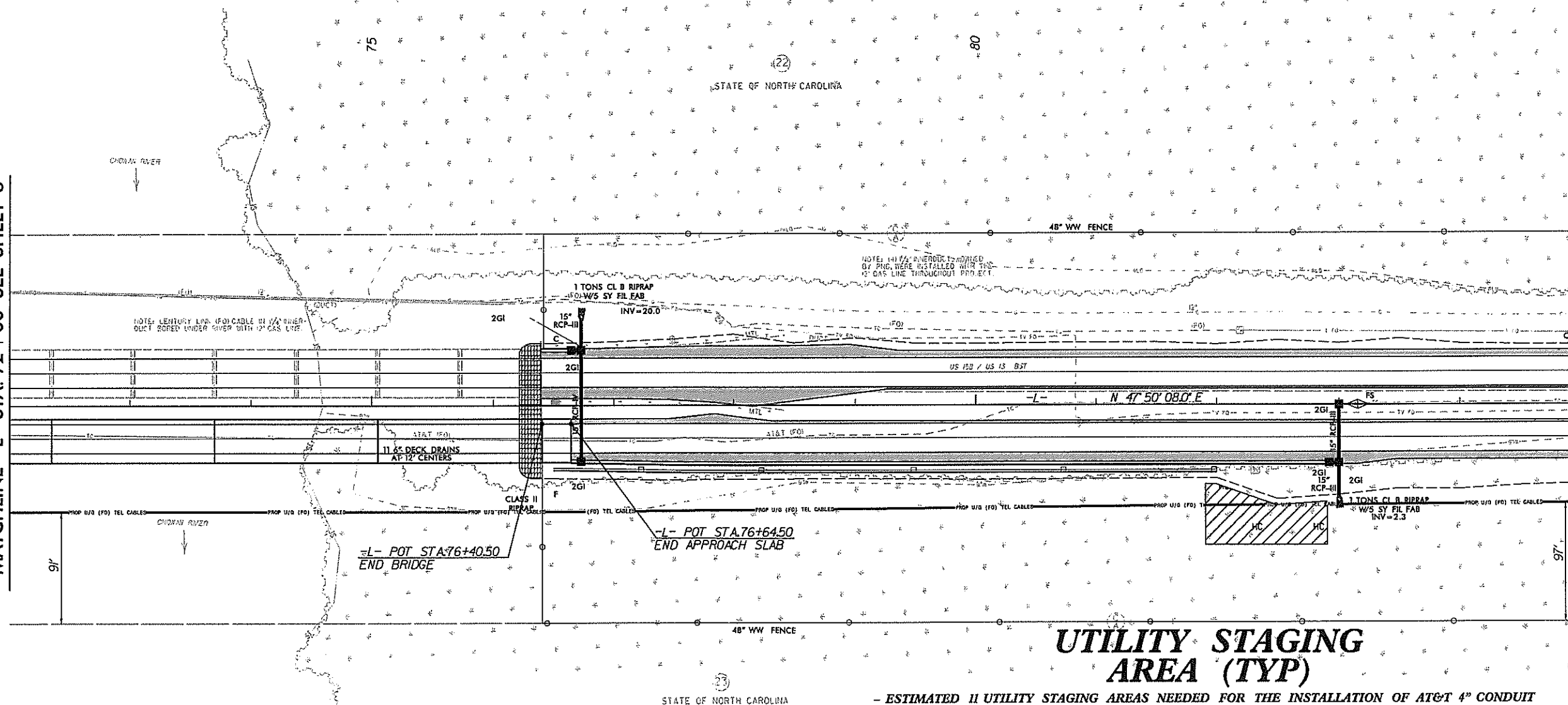
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

 HC DENOTES HAND CLEARING



PROJECT REFERENCE NO.	SHEET NO.
R-2507A	9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>PRELIMINARY PLANS</b>              DO NOT USE FOR CONSTRUCTION           </div>	
<b>PERMIT DRAWING</b> <b>SHEET 11-UTIL OF 19</b>	

**MATCHLINE -L- STA. 72+00 SEE SHEET 8**



MATCHLINE -L- STA. 85+00 SEE SHEET 10

**UTILITY STAGING  
AREA (TYP)**

- ESTIMATED 11 UTILITY STAGING AREAS NEEDED FOR THE INSTALLATION OF AT&T 4" CONDUIT
- EACH AREA APPROXIMATELY 50' X 100'
- EACH AREA PLACED IN CONJUNCTION WITH THE PERMIT TAKES DUE TO CONSTRUCTION OF THE ROADWAY FACILITY (HOWEVER 5000sqft OF HAND CLEARING ASSUMED PER EACH AREA)
- LOCATION WILL VARY BASED ON THE LENGTH THAT THE CONTRACTOR CAN BORE THE CONDUIT
- APPROXIMATE WORK TIME IN AREA WOULD BE 3 WEEKS TOTAL
- PERMANENT IMPACT OF 2' X 3' IN EACH AREA DUE TO HAND HOLE

FOR -L- PROFILE SEE SHT. 42

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

**PLANS PREPARED BY :**

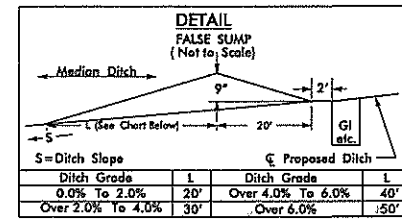
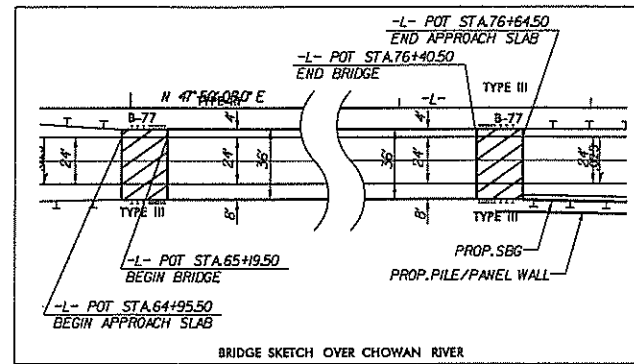


RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560



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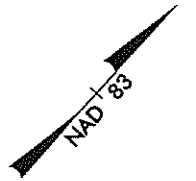
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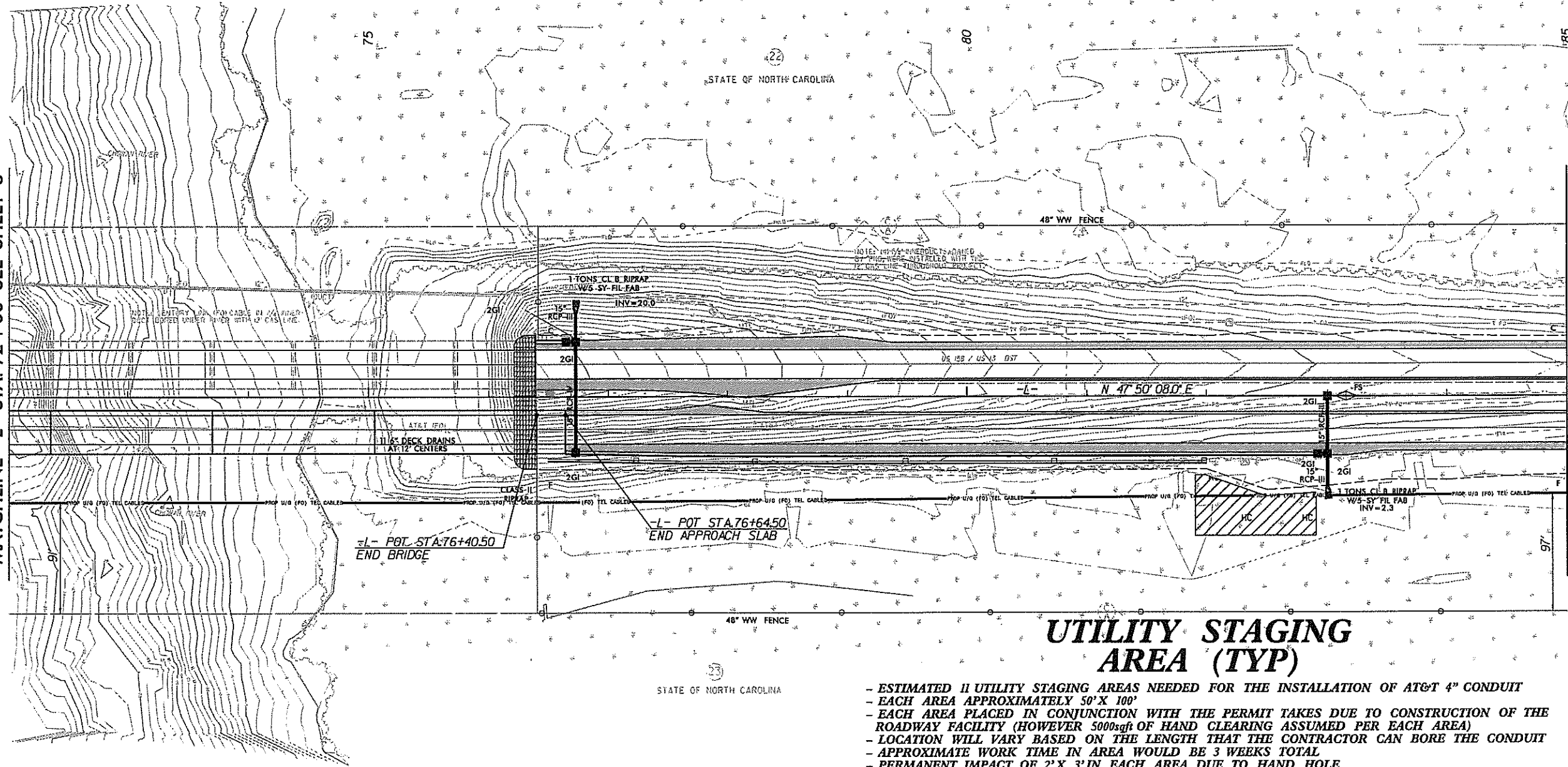
HC HC DENSITIES HAND CLEARING



PROJECT REFERENCE NO. R-2507A	SHEET NO. 9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWING SHEET 12-UTIL OF 19	



MATCHLINE -L- STA. 72 + 00 SEE SHEET 8



MATCHLINE -L- STA. 85 + 00 SEE SHEET 10

## UTILITY STAGING AREA (TYP)

- ESTIMATED 11 UTILITY STAGING AREAS NEEDED FOR THE INSTALLATION OF AT&T 4" CONDUIT
- EACH AREA APPROXIMATELY 50' X 100'
- EACH AREA PLACED IN CONJUNCTION WITH THE PERMIT TAKES DUE TO CONSTRUCTION OF THE ROADWAY FACILITY (HOWEVER 5000sqft OF HAND CLEARING ASSUMED PER EACH AREA)
- LOCATION WILL VARY BASED ON THE LENGTH THAT THE CONTRACTOR CAN BORE THE CONDUIT
- APPROXIMATE WORK TIME IN AREA WOULD BE 3 WEEKS TOTAL
- PERMANENT IMPACT OF 2' X 3' IN EACH AREA DUE TO HAND HOLE

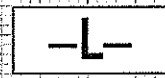
FOR -L- PROFILE SEE SHT. 42

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

PLANS PREPARED BY :

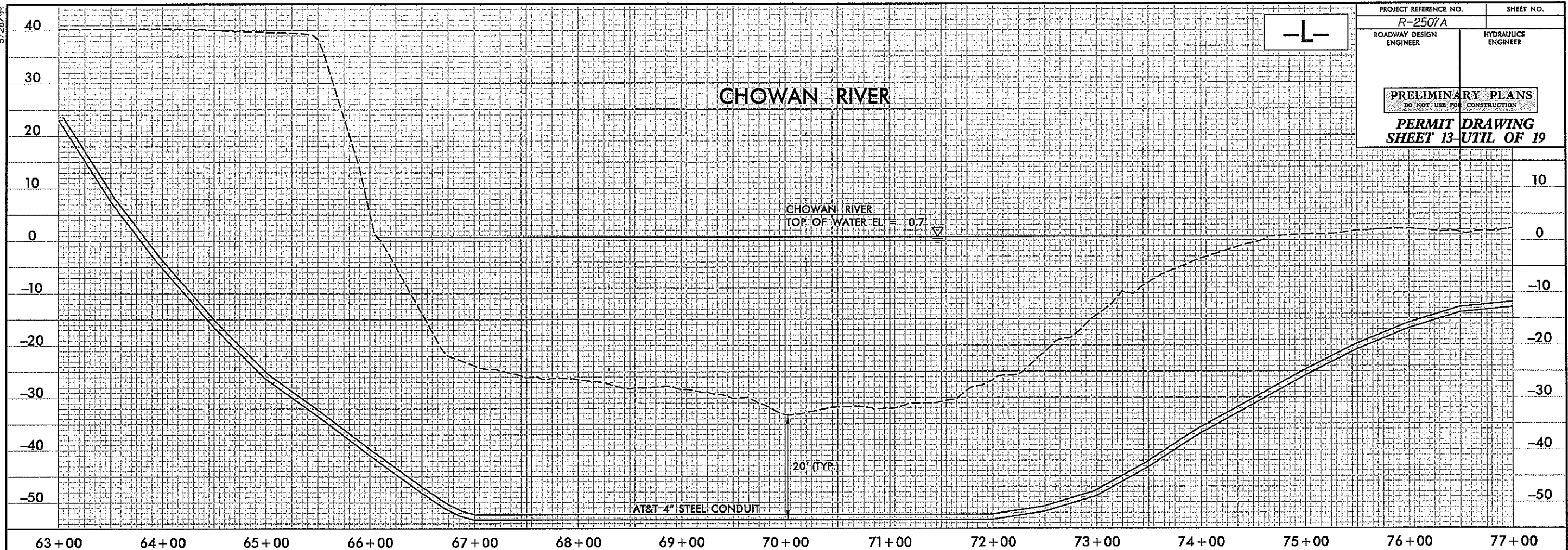
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

5/28/99

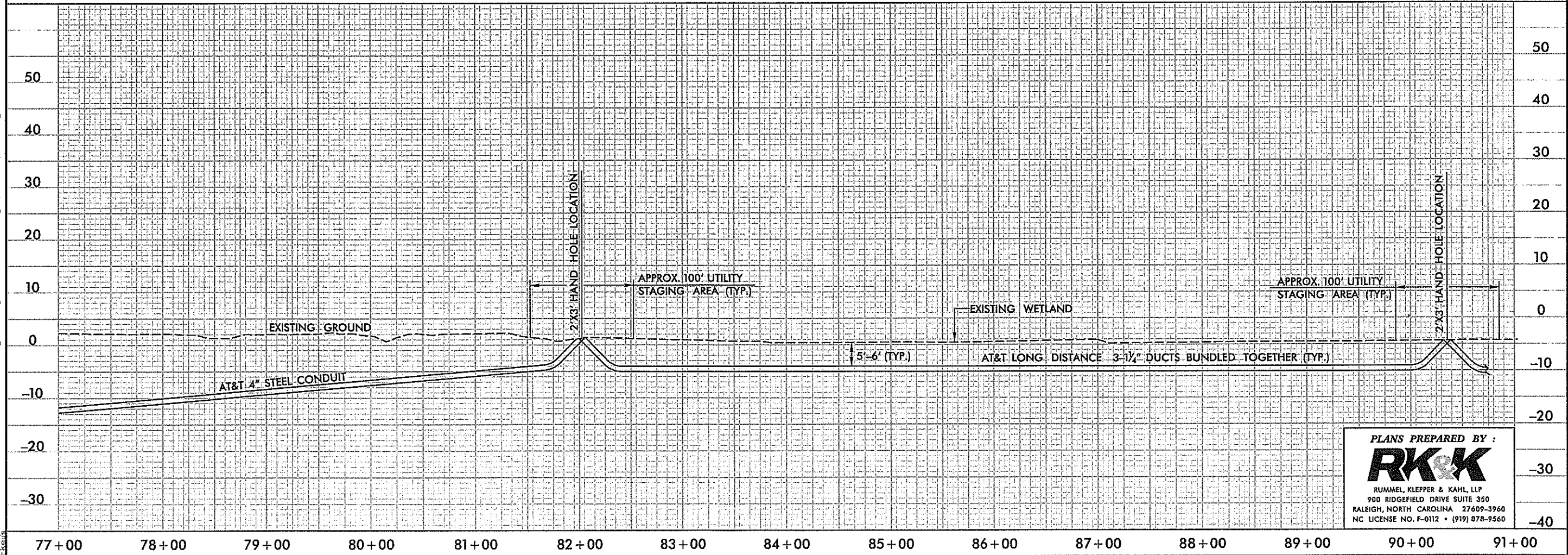


# CHOWAN RIVER

PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION		
PERMIT DRAWING SHEET 13-UTIL OF 19		



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Figure 13

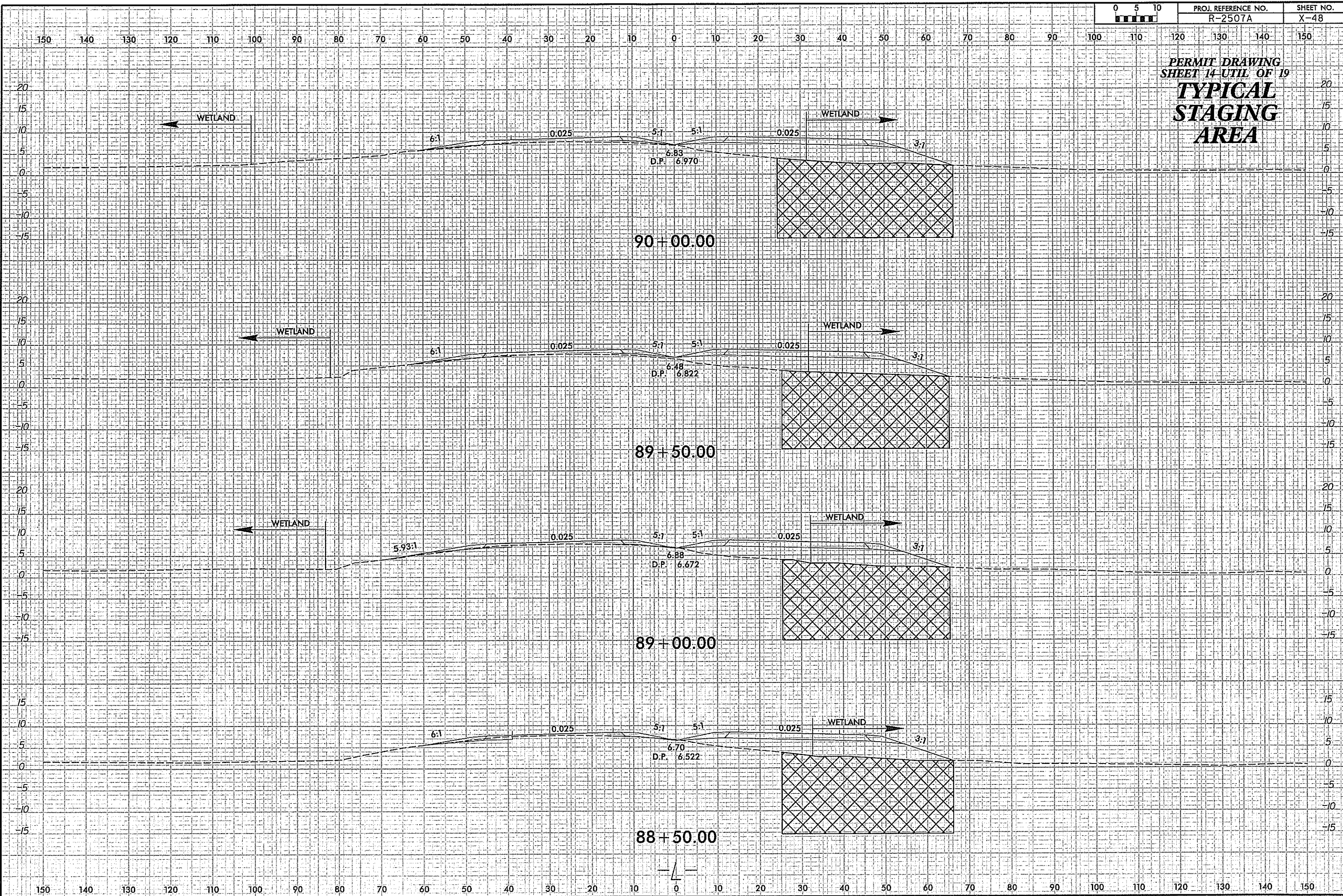


PLANS PREPARED BY :
<b>RK&amp;K</b>
RUMMEL, KLEPPER & KAHL, LLP 900 RIDGEFIELD DRIVE SUITE 350 RALEIGH, NORTH CAROLINA 27609-3960 NC LICENSE NO. F-0112 • (919) 878-9560

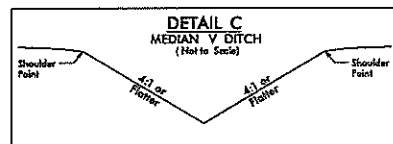


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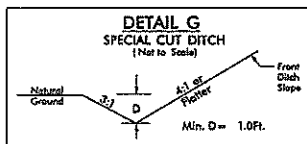
PERMIT DRAWING  
SHEET 14-UTIL OF 19  
**TYPICAL  
STAGING  
AREA**



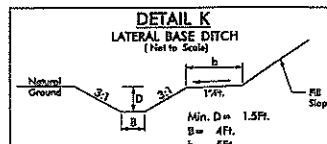
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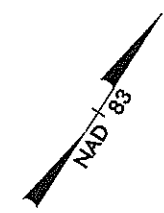
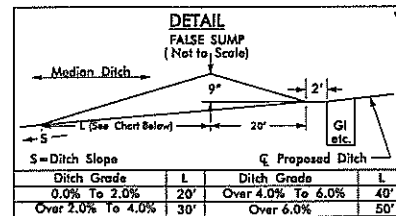
-L- STA. 220+50 TO STA. 225+00



-L- STA. 217+30 TO STA. 221+25 RT



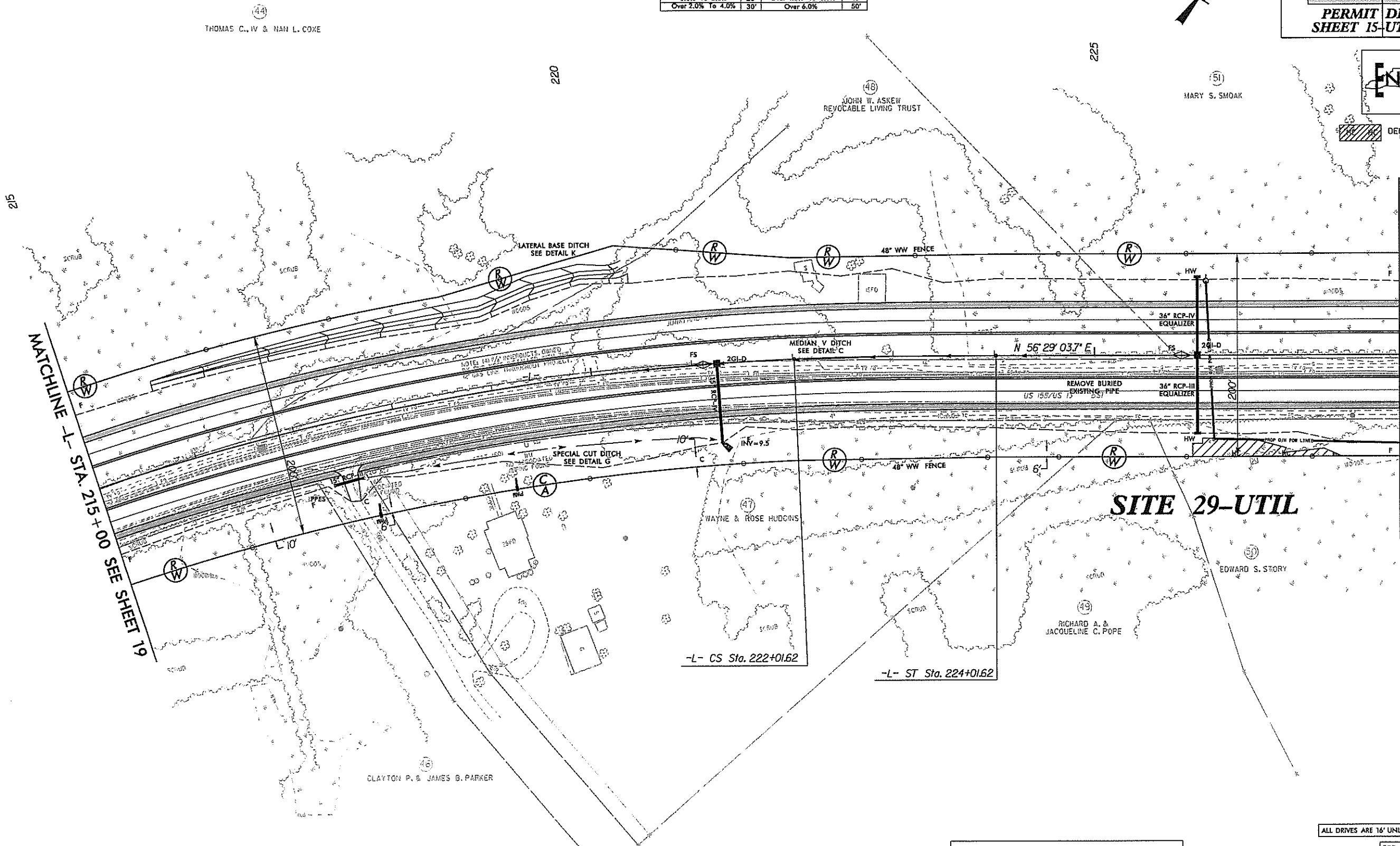
-L- STA. 215+75 TO STA. 220+66 LT



PROJECT REFERENCE NO. <b>R-2507A</b>		SHEET NO. <b>20</b>
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION		
<b>PERMIT DRAWING</b> <b>SHEET 15-UTIL OF 19</b>		



DENOTES HAND CLEARING



ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT. 47

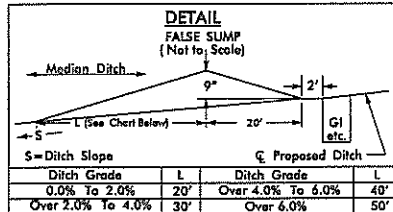
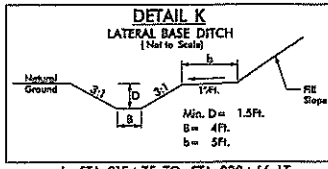
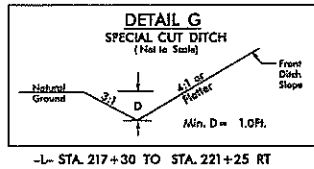
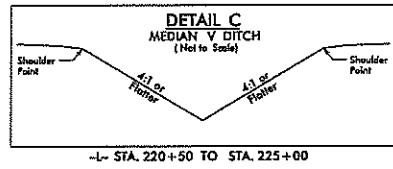
PLANS PREPARED BY :

**RK&K**

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900 RIDGEFIELD DRIVE SUITE 350  
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NC LICENSE NO. F-0112 • (919) 878-9560



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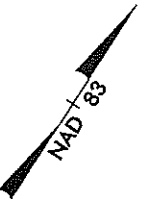
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R/W SHEET NO.

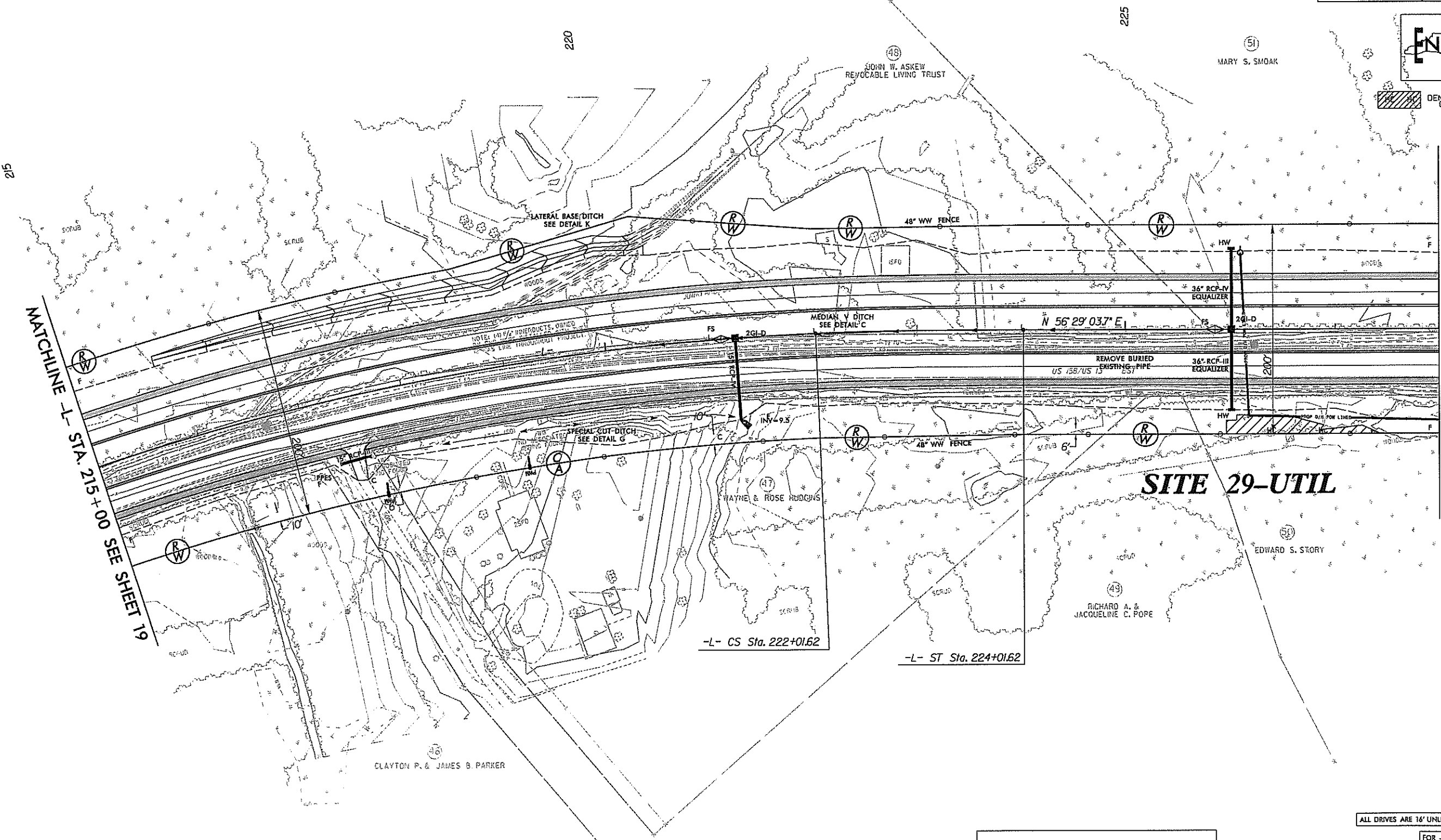
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING**  
SHEET 16-UTIL OF 19



DENOTES HAND CLEARING



MATCHLINE -L- STA. 228+00 SEE SHEET 21

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Eckel

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

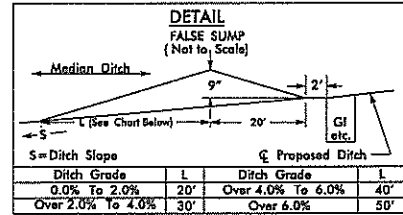
FOR -L- PROFILE SEE SHT. 47

PLANS PREPARED BY :

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RALEIGH, NORTH CAROLINA 27609-3960  
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R2507A

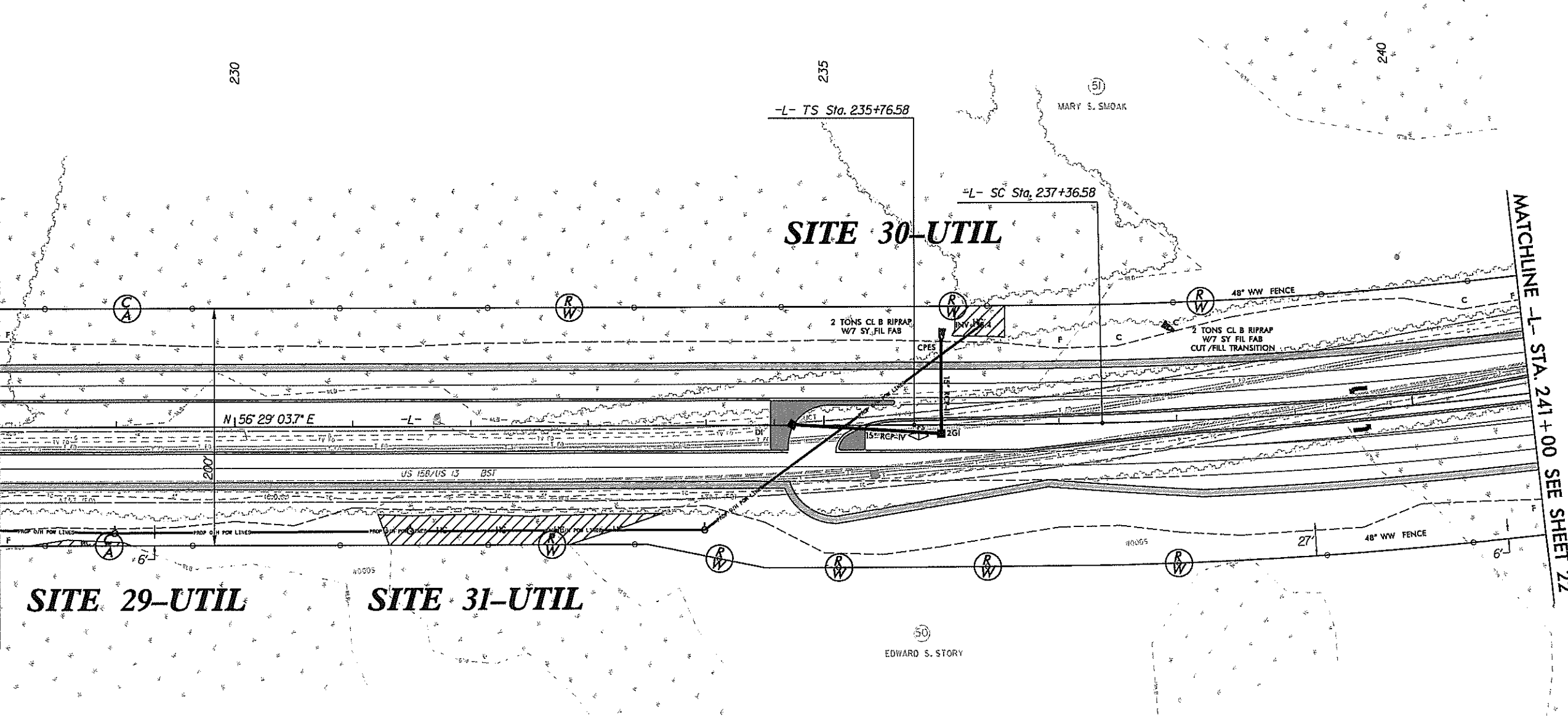


DENOTES HAND CLEARING



PROJECT REFERENCE NO. <i>R-2507A</i>		SHEET NO. <i>21</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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<b>PERMIT DRAWING</b> <b>SHEET 17-UTIL OF 19</b>			

MATCHLINE -L- STA. 228+00 SEE SHEET 20



MATCHLINE -L- STA. 241+00 SEE SHEET 22

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BUILD DETAILS SEE SHEET 2H

FOR -L- PROFILE SEE SHTS. 47 & 48

**PLANS PREPARED BY :**  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
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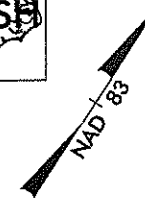


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CLEARING

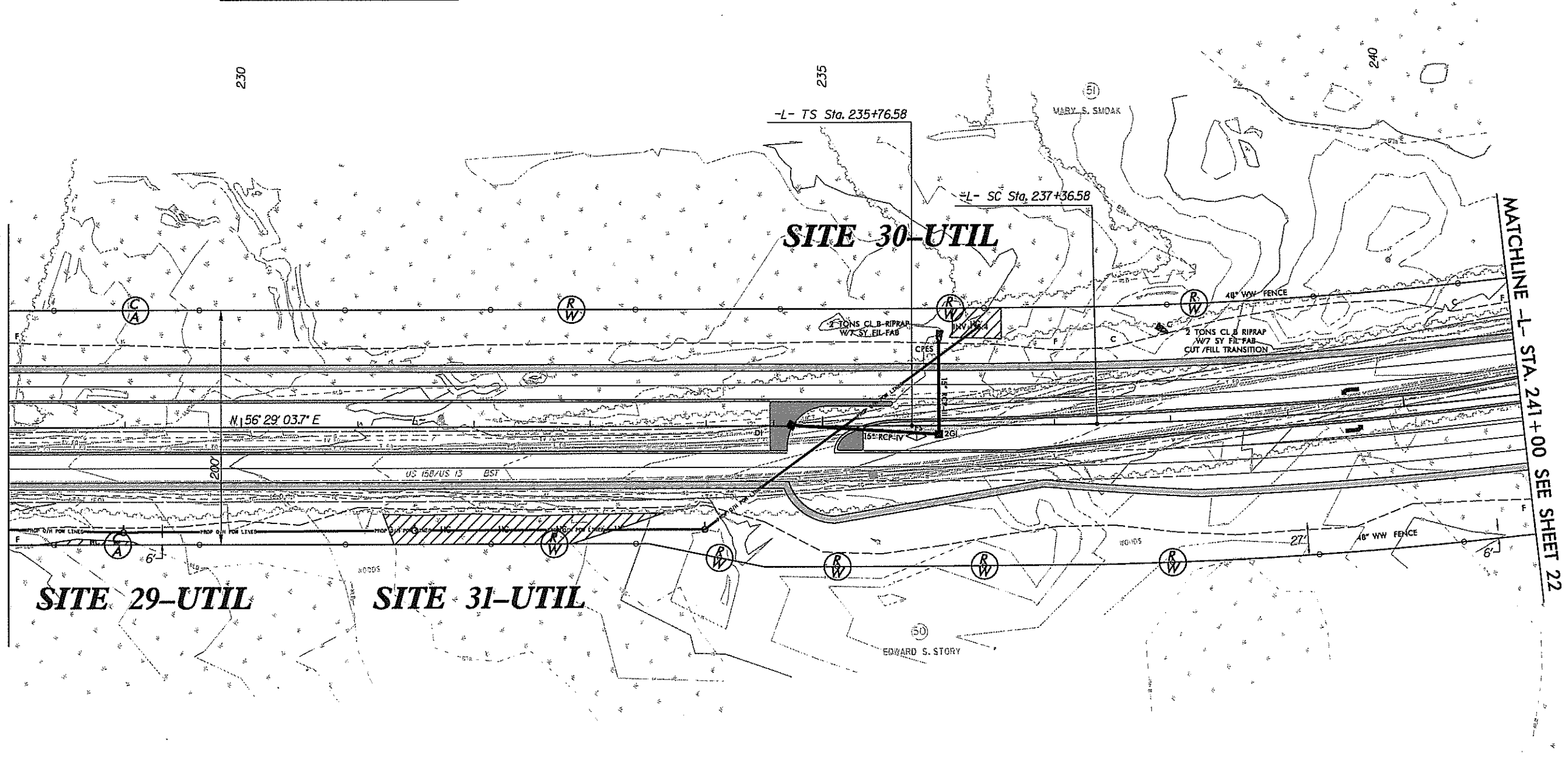
ENGLISH



PROJECT REFERENCE NO. R-2507A		SHEET NO. 21
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWING SHEET 18-UTIL OF 19		

DETAIL FALSE SUMP (Not to Scale)			
S=Ditch Slope		Q Proposed Ditch	
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

MATCHLINE -L- STA. 228+00 SEE SHEET 20



MATCHLINE -L- STA. 241+00 SEE SHEET 22

ALL DRIVES ARE 16' UNLESS OTHERWISE NOTED

FOR BULB DETAILS SEE SHEET 2H

FOR -L- PROFILE SEE SHTS. 47 & 48

PLANS PREPARED BY :

**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

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PROJ. REFERENCE NO.  
R-2507A

SHEET NO.  
X-98

PERMIT DRAWING  
SHEET 19 OF 19  
**SITES 29-UTIL,  
30-UTIL,  
31-UTIL**

3/2/2012  
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