



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

February 12, 2019

NC Dept. of Environmental Quality  
Division of Coastal Management  
401 S. Griffin Street, Suite, 300  
Elizabeth City, NC 27909

ATTN: Mr. Greg Daisey, NCDOT Coordinator

Subject: **Resubmittal of the Application for CAMA Major Development Permit** for the Proposed Improvements to US 17 Business / NC 37 (North Church Street) from South of the Perquimans River Bridge NC 37; including the replacement of Bridge No. 8 in Perquimans County, North Carolina; TIP No. R-4467; Federal Aid Project BRNHS-0017(85); Debit \$475 from WBS No. 35748.3.2

Dear Mr. Daisey:

As you are aware, the North Carolina Department of Transportation (NCDOT) proposes improvements to US 17 Business/NC 37 from south of Bridge No. 8 over the Perquimans River Bridge to north of NC 37.

There have been several revisions since the original permit application was submitted on August 3, 2018. These revisions have not resulted in changes to proposed jurisdictional impacts. Additionally, the NCDOT retired the original permit application on January 25, 2019, and as a result the Department is resubmitting the CAMA permit application in its entirety.

As such, please find enclosed:

- Copies of letters to adjacent riparian landowners
- Major Permit Forms 1, 2, and 5
- Stormwater Management Plan
- Permit Drawings
- Utility Drawings
- Roadway Plans
- Information in response to NCDOT's August 31, 2018 Letter (included as Attachment A)

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
ENVIRONMENTAL ANALYSIS UNIT  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6000  
FAX: 919-212-5785  
WEBSITE: [NCDOT.GOV](http://NCDOT.GOV)

**LOCATION:**  
CENTURY CENTER, BUILDING B  
1000 BIRCH RIDGE DRIVE  
RALEIGH NC, 27610-4328

An Environmental Assessment was completed in February 2013 and State Finding of No Significant Impact was completed February 2018 and distributed shortly thereafter. Additional copies are available at the NCDOT website:  
<https://www.ncdot.gov/projects/us-17-business/Pages/project-documents.aspx>

NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Permit. Adjacent riparian landowner certified mail return receipts will be provided once they are received.

A copy of this permit application will be posted on the NCDOT Website at <https://xfer.services.ncdot.gov/pdea/PermApps/>. Should you have any questions regarding this information, please contact Jason Dilday at (919) 707-6111 or [jldilday@ncdot.gov](mailto:jldilday@ncdot.gov).

Sincerely,



for

Philip S. Harris III, P.E., C.P.M., Unit Head  
Environmental Analysis Unit

cc: Cathy Brittingham, NCDCM Raleigh  
NCDOT Permit Application Standard Distribution List

The following information is provided as an itemized list in conjunction with the NCDCM's August 31, 2018 request for clarification. This request was made in response to the original permit application submitted on August 3, 2018.

#### **1. (1) Pivot and Resting Piers Power Cable Installation**

Directional bores need to start and end on firm ground where the equipment can rest. Since the power cable will enter the water along the first rest pier traveling from the Hertford side, and then resurface at both the pivot pier and second rest pier, this is not possible. The Team considered a cut and cover trench using a barge mounted clam shell, but in the Team's experience (and via agency input on a recent job in Florida), this method caused as much, if not more, turbidity than the diver jetted method. As such, we are proposing the least impactful installation method of which we are aware. It will be installed outside of the February 15 – June 30 moratorium.

#### **1. (2) Removal of Existing Causeway**

The causeway of the existing roadway will be removed once the new roadway and bridge are open to the public. As much of the existing roadway and underlying causeway will be removed as possible without resulting in excessive damage to the surrounding wetlands. The causeway will then be backfilled where required such that there are not depressional areas lower than the adjacent wetlands. The objective is to leave the area as close to a natural state as possible with a mix of upland areas to act as wildlife refugia while also potentially restoring wetlands. This was discussed and agreed to during the Merger Process. Turbidity will be controlled in accordance with NCDOT required BMPs, which will include a combination of silt fences and/or turbidity curtains.

The amount, depth, and composition of the fill material comprising the causeway is unknown. As noted in the 4C Merger Meeting, the decision as to what and how much should be removed will be made once the removal process begins. When construction is approximately 1-month from commencing removal of the roadway, NCDOT will notify agency personnel so they can schedule to observe the material removal and offer opinions as to when continued removal is no longer reasonable.

#### **1. (3) Temporary Boat Landing and Barge Mooring**

The purpose of the temporary boat landing is to provide a gangway to access the barges and small boats needed to relay equipment. An 18-inch pile will be used to hold the gangway in place. The barges will be moored in temporary mooring locations shown in Figure A-1 in Appendix A. A schematic of the mooring locations is also included in Figure A-1. The location of the gangway is shown on Permit Drawing 2 and 3 of 17. A picture of an example gangway (Figure A-2) used on a recent project is attached in Appendix A.

#### **1. (4) Cofferdam**

The proposed cofferdam will be constructed of steel sheet pile surrounding the existing pivot pier installed with a vibratory hammer. The sheet pile cofferdam will be used to

contain demolition debris from the existing pivot pier and to provide a means of dewatering if necessary. The current schedule shows the cofferdam being installed 10/15/20 and being removed 1/5/21.

### **1. (5) Observation Deck**

Included in the design for the new bridge are two 6'x 10' observation decks. These decks were added to replicate and enhance the scenic aspects of the Perquimans River for the pedestrian public that were available on the original bridge. These decks are located on the downstream side of the bridge at Bent #5 (-L- 32+71.00) and Bent #12 (-L- 38+87.00), which overlooks the turtle log. They are a part of the deck superstructure and will be accessed by the 5.5' sidewalk along the downstream side of the bridge. No additional in-water support is needed for these observation decks.

### **1. (6) Existing Bridge Demolition**

The pivot pier and the existing deck will be wire sawed into manageable pieces for removal by crane. Following removal of the deck, girders, and bent caps, piles will be extracted with vibratory hammers. If the existing piles are so deteriorated that they break apart during vibratory extraction, piles will be removed to a depth of 4 feet below existing mudline.

### **1. (7) Project History and Commitments**

#### **Project History**

- The Project History through January 2018 can be found in Section III of the State Finding of No Significant Impact (SFONSI).
- This project was removed from the NDOT NEPA/401 Merger Process in January 2015 at the merger team's request.
- Informal 4B and 4C meeting were held on 4/19/18 and 6/13/18 respectively.
- Public hearing to address concerns by affected residents was held on 8/23/18.

#### **Project Commitments**

Project commitments detailed in the SFONSI will be adhered to, when applicable, during all phases of the project's duration.

### **1. (8) Chain Link Fence**

As agreed to with adjacent landowners when the project was in the Merger Process, chain link fences are part of the two retaining walls and bulkhead that are being constructed as part of this project. The fences will be 5' tall, black vinyl coated, placed just in front of the retaining walls and bulkhead, and installed in accordance with the NCDOT standards included in Appendix B. The fences were requested to stop/discourage people from accessing the river (primarily to fish) via private property.

## **2. State Historic Preservation Documentation**

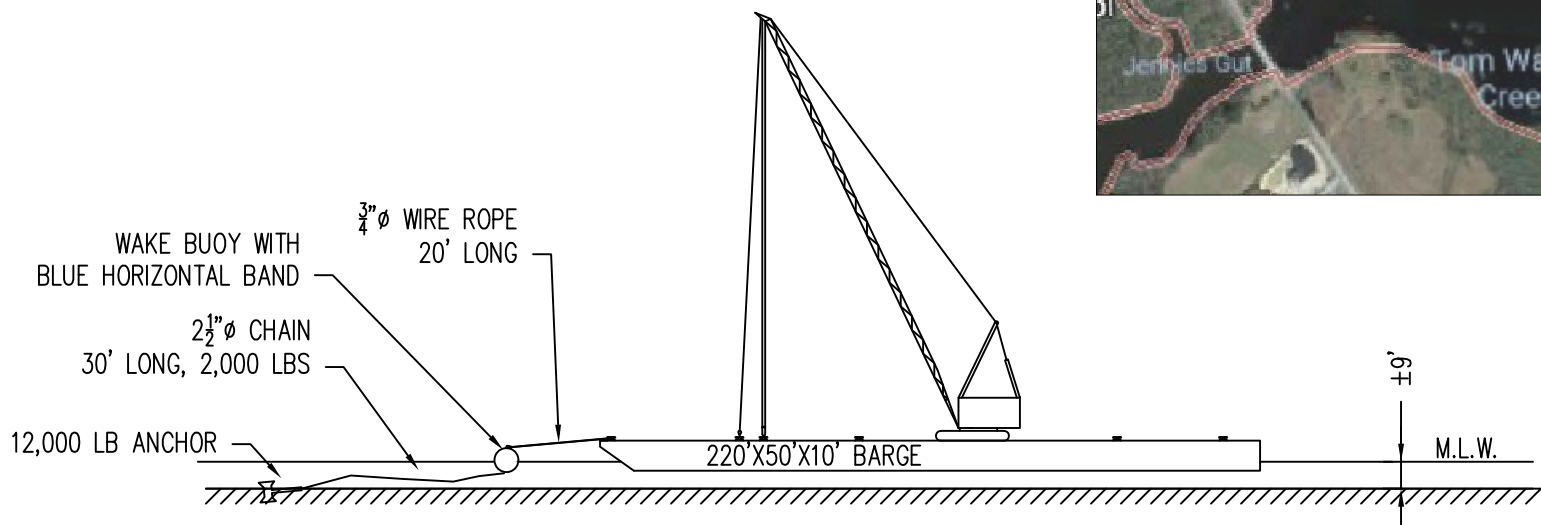
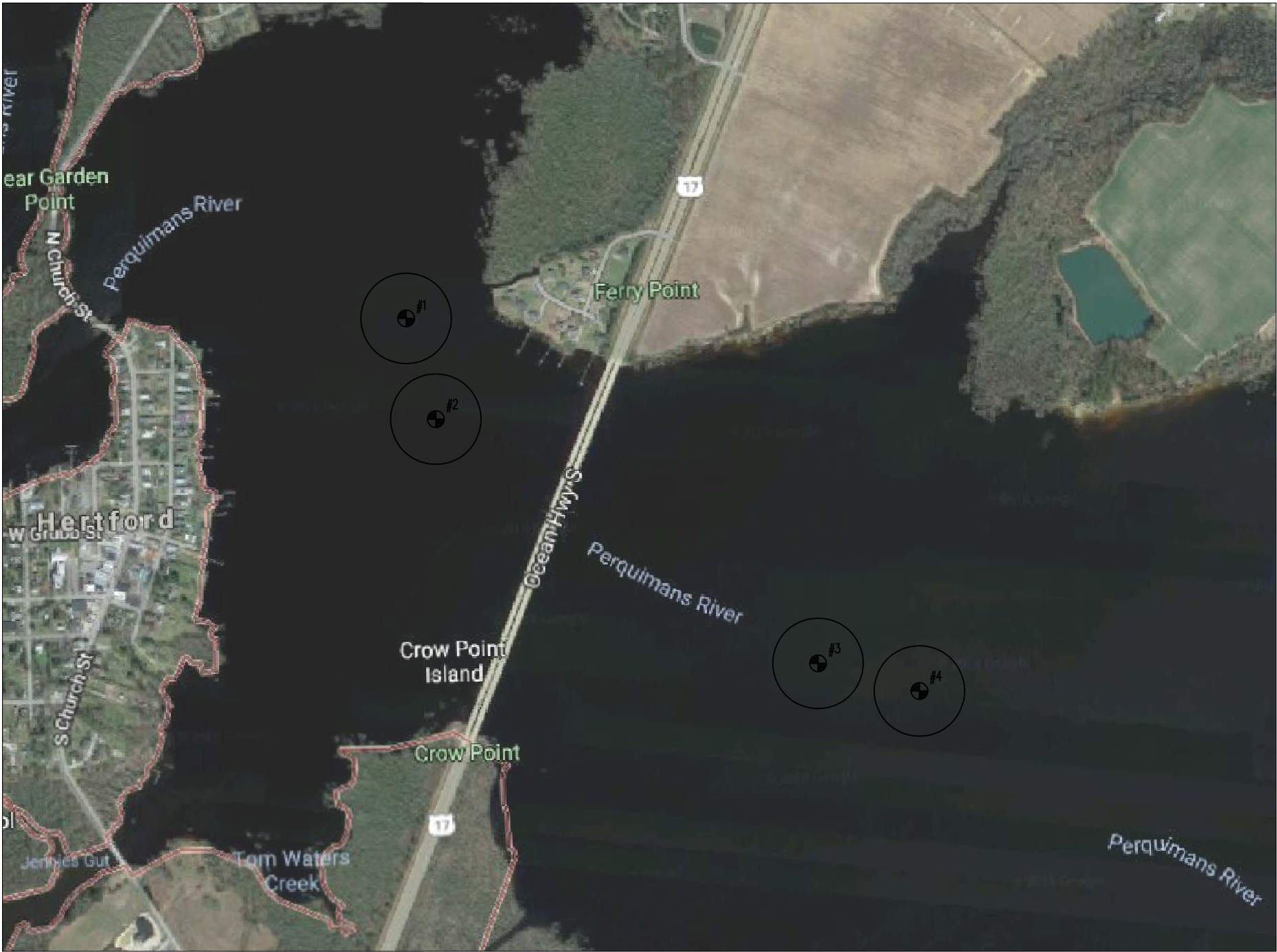
The memorandum of agreement between the USCG, USACE, NCDOT, NCSHPO and ACHP regarding R-4467 is attached (Appendix C).

## **3. Work Trestles**

All work trestles required to construct this project are shown and accounted for in the provided drawings.

Figure A-1

NOTES:  
MOORING #1: 36° 11.631 N 76° 27.538 W  
MOORING #2: 36° 11.516 N 76° 27.501 W  
MOORING #3: 36° 11.229 N 76° 26.977 W  
MOORING #4: 36° 11.195 N 76° 26.836 W  
SWING RADIUS = 30' +20' +220' = 270'  
ALL BARGES AND BUOYS WILL BE MARKED WITH FLASHING LIGHTS



MOORING SCHEMATIC  
SCALE:  $\frac{1}{64}$ " = 1'-0"

MOORING LOCATION MAP  
SCALE: N.T.S.


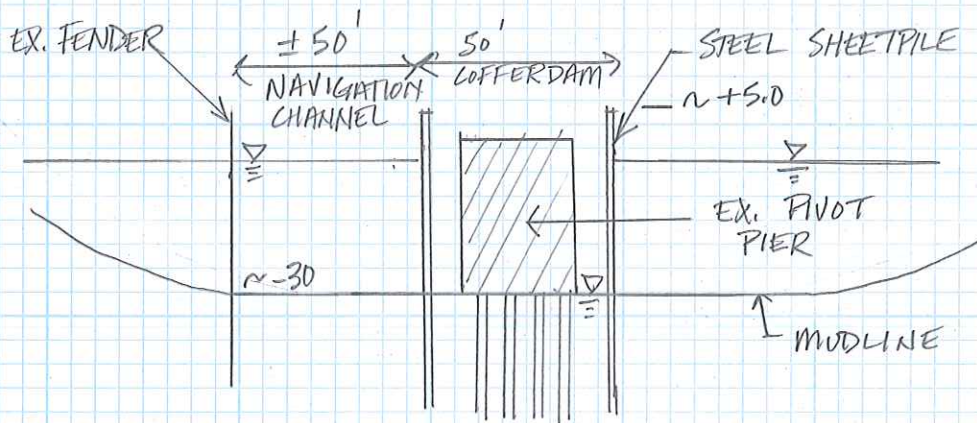
BARGE MOORINGS			
		6700 McLEAN WAY GLEN BURNIE, MD 21060 TEL. 410-553-6700 FAX 410-553-6718 www.mdeancont.com	
JOB NO.:	M-5850	DATE:	6/21/18
CLIENT:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		
PROJECT:	R-4467 PERQUIMANS RIVER BRIDGE		
LOCATION:	HERTFORD, NC		
BY:	JW	SHEET NO.	1 OF 1

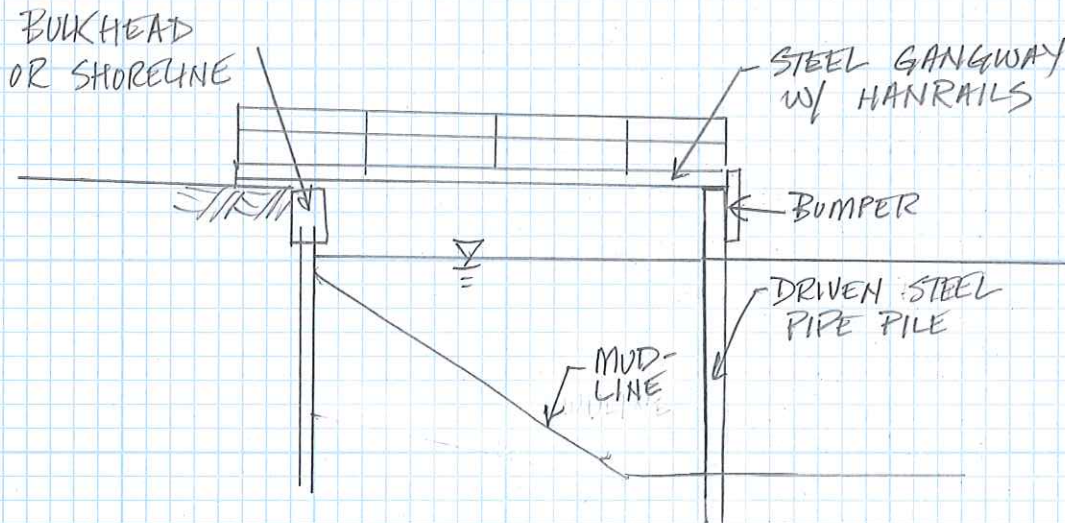
Figure A-2



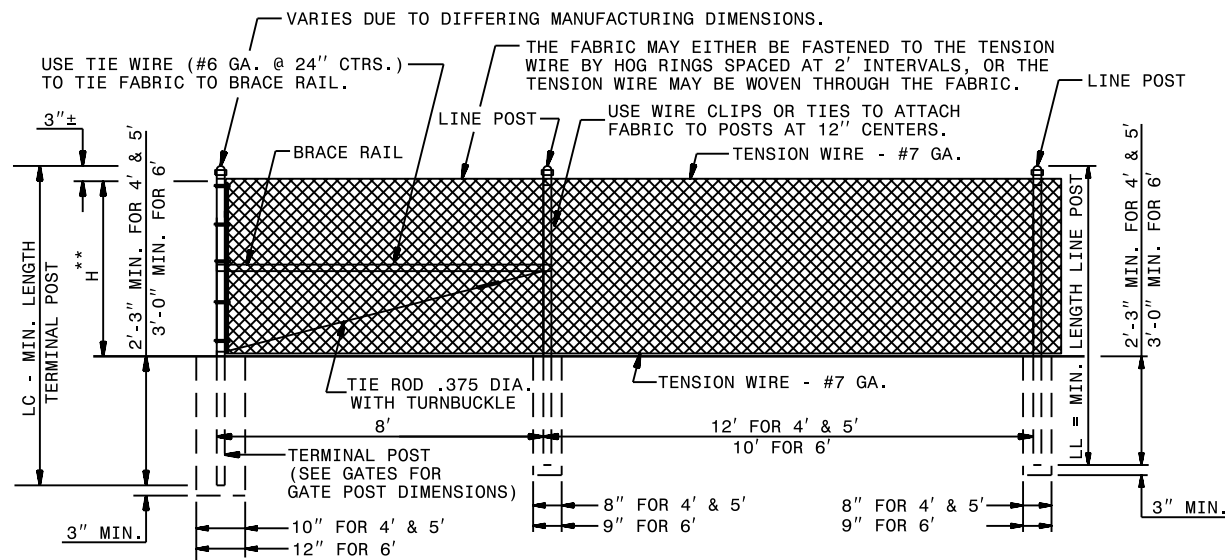
**Figure A-3**



SKETCH - PIVOT PIER  
DEMO COFFERDAM  
N.T.S.

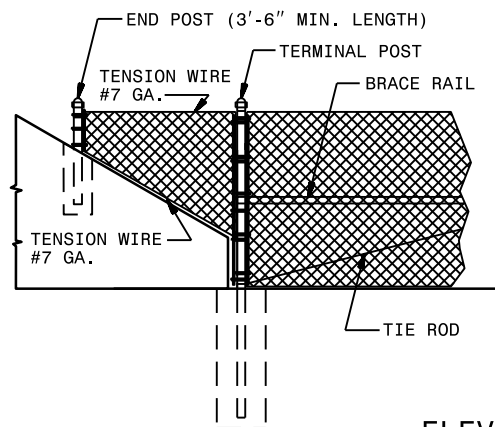


BOAT LANDING / CREW ACCESS  
N.T.S.



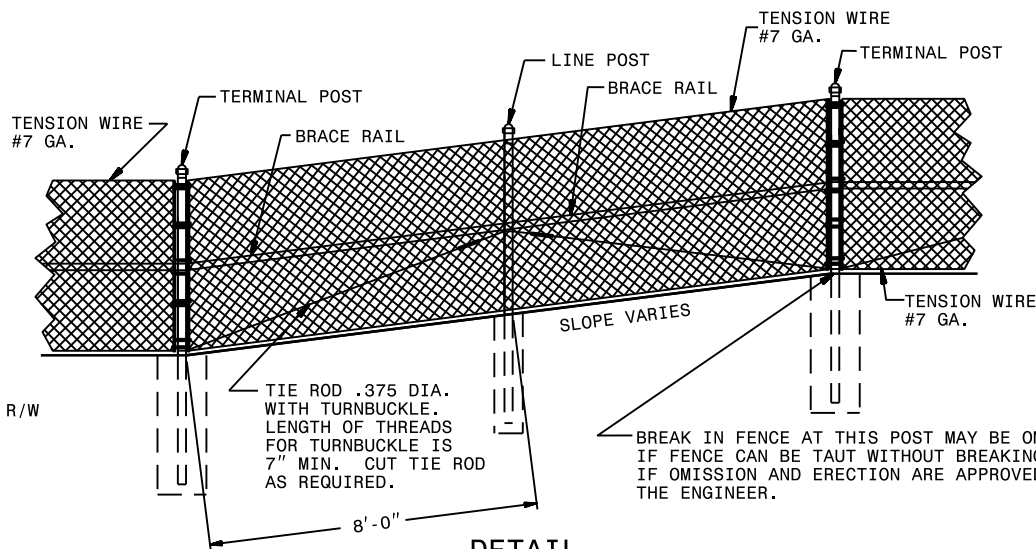
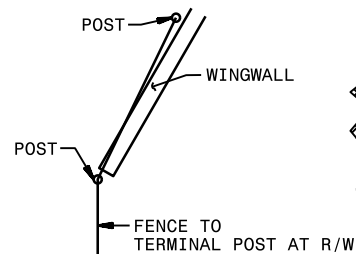
\*\*"H" IS THE HEIGHT OF FENCE. SEE PAY ITEM DESCRIPTION FOR REQ'D HEIGHT FOR PROJECT.

NOTE: ROLL FORMED LINE POST MAY BE DRIVEN TO A MINIMUM OF 3'-0" IN LIEU OF CONCRETE ANCHOR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



ELEVATION

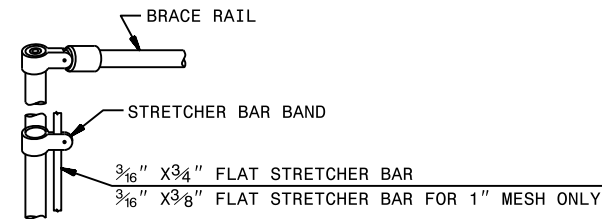
METHOD OF TYING FENCE TO ENDWALL



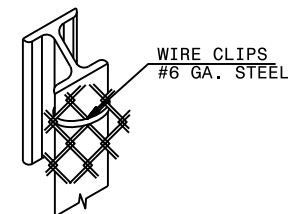
DETAIL

METHOD OF CONSTRUCTING FENCE ON SHARP BREAK IN GRADE

NOTES:  
CAPS ARE REQUIRED ON PIPE POST. CAPS ARE NOT REQUIRED ON "H" POST OR ROLL FORMED POST. INSTALL FENCE FABRIC ON THE SIDE FARTHEST FROM THE HIGHWAY EXCEPT THAT ON HORIZONTAL CURVES GREATER THAN THREE DEGREES, INSTALL THE FENCE TO PULL AGAINST LINE POST. CONSIDER ALL CHANGES IN DIRECTION OF FENCE LINE OF 30° OR MORE AS CORNERS.



GATE OR TERMINAL POST WITH STRETCHER BAR ATTACHMENT



METHOD OF TYING FABRIC TO "H" POST

ROADWAY STANDARD DRAWING FOR

# CHAIN LINK FENCE

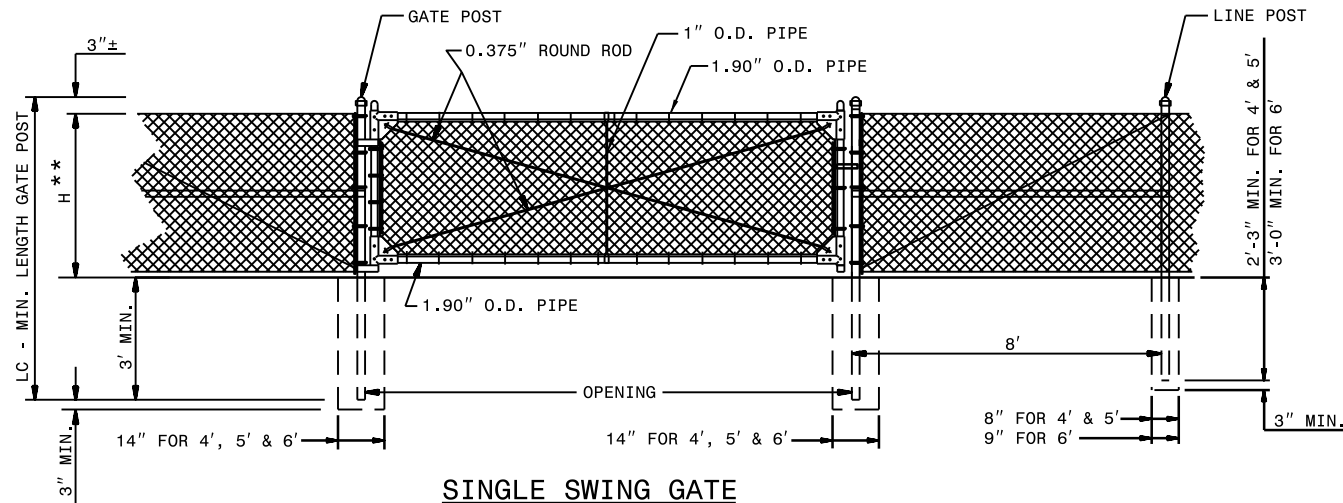
4', 5' AND 6' HIGH FENCE

1-18

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DIVISION OF HIGHWAYS  
RALEIGH, N.C.

SHEET 1 OF 3

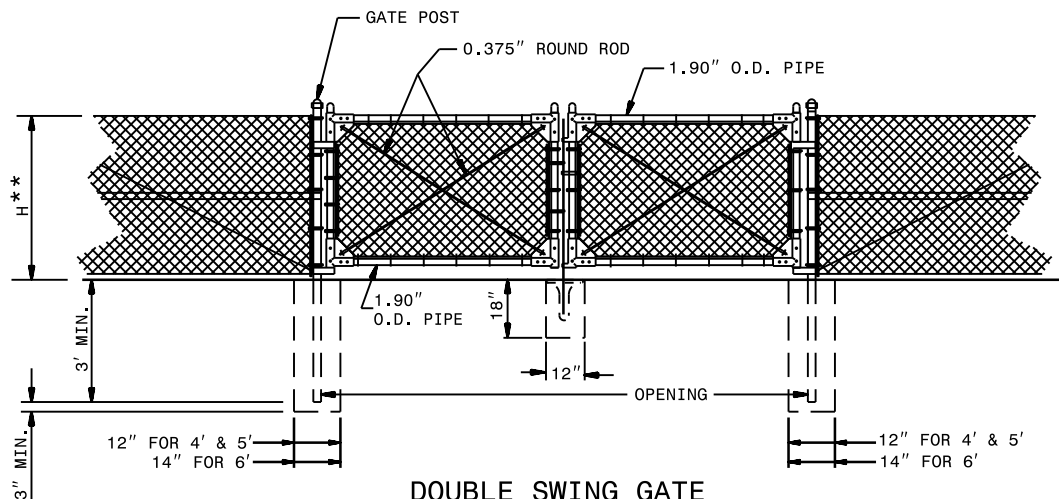
866.01



**SINGLE SWING GATE**

\*\*"H" IS THE HEIGHT OF FENCE. SEE PAY ITEM DESCRIPTION FOR REQ'D HEIGHT FOR PROJECT.

NOTE: ROLL FORMED LINE POST MAY BE DRIVEN TO A MINIMUM OF 3'-0" IN LIEU OF CONCRETE ANCHOR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

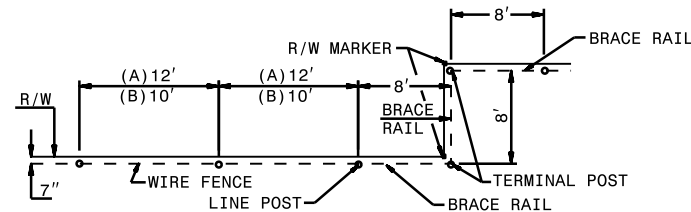
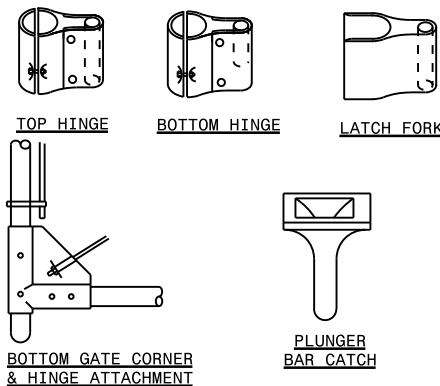


**DOUBLE SWING GATE**

USE WHERE SWINGING CLEARANCE IS LIMITED

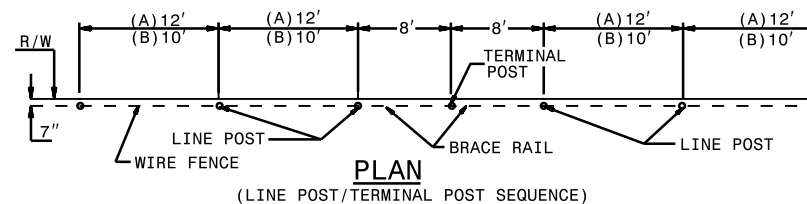
MAXIMUM WIRE SPACING TO BE 6".  
MAXIMUM CLEARANCE BETWEEN LOWEST STRAND AND GROUND TO BE 6".  
ERECT BRACE RAILS BETWEEN TERMINAL OR GATE POSTS AT INTERVALS NOT EXCEEDING 700' ON TANGENTS OR 350' ON SHORT RADIUS CURVES.  
ERECT ADDITIONAL TERMINAL POSTS IF DIRECTED BY THE ENGINEER.  
BRACE TERMINAL POSTS FROM BOTH SIDES OF POST.

NOTE:  
FENCE HARDWARE VARIES DUE TO  
DIFFERING MANUFACTURES SUPPLIES.



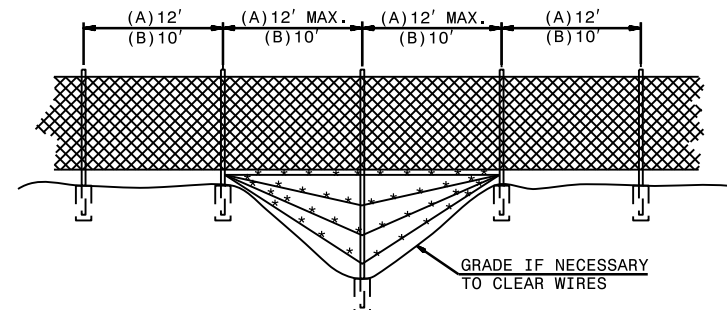
**PLAN**

PLACEMENT OF FENCE ALONG RIGHT OF WAY  
(BRACE ALL TERMINAL POSTS AS SHOWN ABOVE)



**PLAN**

(LINE POST/TERMINAL POST SEQUENCE)



**DETAIL OF DITCH CROSSING**

ROADWAY STANDARD DRAWING FOR

**CHAIN LINK FENCE**

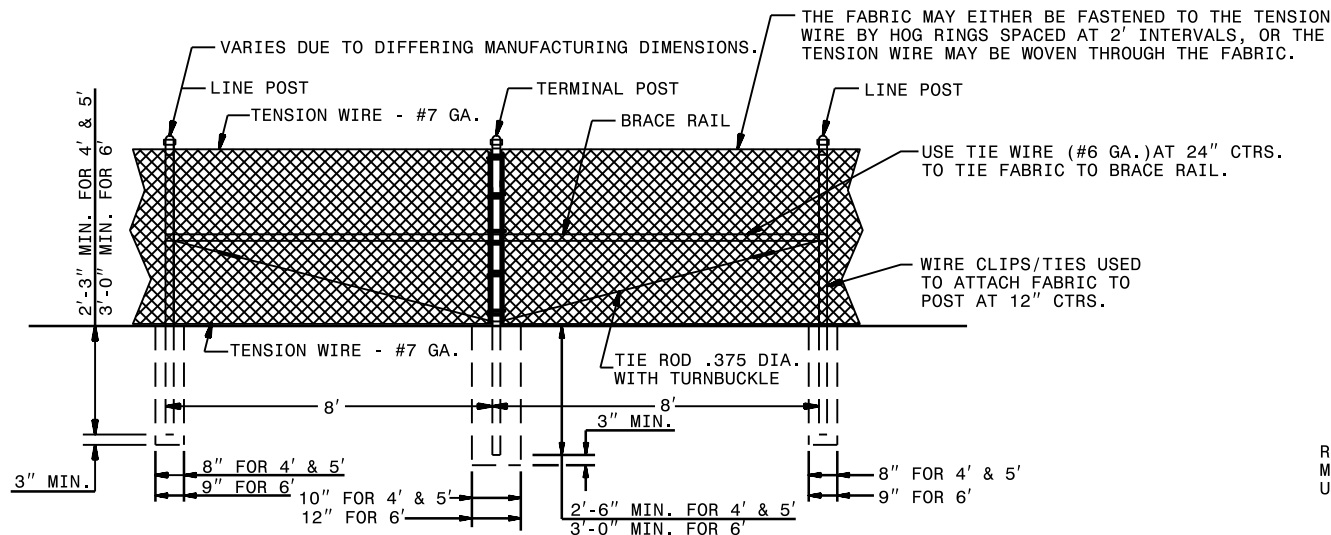
4', 5' AND 6' HIGH FENCE

1-18

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RALEIGH, N.C.

SHEET 2 OF 3

**866.01**

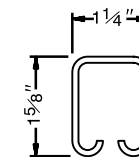


**LINE BRACE DETAIL**

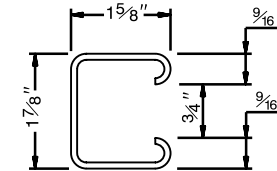
\*\*"H" IS THE HEIGHT OF FENCE. SEE PAY ITEM DESCRIPTION FOR REQ'D HEIGHT FOR PROJECT.

FABRIC	GALV. STEEL OR ALUMINUM COATED STEEL #11 GAGE			ALUMINUM ALLOY OR ALUMINUM COATED STEEL (#11 GAGE)	
FRAME COMPONENTS	GALVANIZED STEEL #11 GAGE			ALUMINUM ALLOY	
SYSTEM	G1	G2	G3	A1	A2
LINE POST	1.90" O.D. STEEL PIPE	1.625" X 1.875" STEEL H	1.625" X 1.875" STEEL R.F.	2.375" O.D. ALUMINUM PIPE	2.00" X 2.50" ALUMINUM PIPE
TERMINAL POST (END, CORNER, BRACÉS)	2.375" O.D. STEEL PIPE	2.375" O.D. STEEL PIPE	2.375" O.D. STEEL PIPE	2.875" O.D. ALUMINUM PIPE	2.875" O.D. ALUMINUM PIPE
GATE POST UP THRU 6' LEAF	2.875" O.D. STEEL PIPE	2.875" O.D. STEEL PIPE	2.875" O.D. STEEL PIPE	2.875" O.D. ALUMINUM PIPE	2.875" O.D. ALUMINUM PIPE
GATE POST 7' THRU 12' LEAF	4.000" O.D. STEEL PIPE	4.000" O.D. STEEL PIPE	4.000" O.D. STEEL PIPE	4.000" O.D. ALUMINUM PIPE	4.000" O.D. ALUMINUM PIPE
BRACE RAIL	1.660" O.D. STEEL PIPE	1.660" O.D. STEEL PIPE	1.250" X 1.625" STEEL R.F. OR 1.660" O.D. STEEL PIPE	1.660" O.D. ALUMINUM PIPE	1.660" O.D. ALUMINUM PIPE

**FOR 4' AND 5' FENCE SYSTEMS**



**BRACE RAIL**  
(ROLL FORMED)



**LINE POST**  
(ROLL FORMED)

ROLL FORMED LINE POST MAY BE DRIVEN TO A MINIMUM OF 3'-0" IN LIEU OF CONCRETE ANCHOR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

FABRIC	GALV. STEEL OR ALUMINUM COATED STEEL #11 GAGE		
FRAME COMPONENTS	GALVANIZED STEEL		
SYSTEM	G1	G2	G3
LINE POST	2.375" O.D. STEEL PIPE	1.625" X 1.875" STEEL H	1.625" X 1.875" STEEL R.F.
TERMINAL POST (END, CORNER, BRACÉS)	2.875" O.D. STEEL PIPE	2.875" O.D. STEEL PIPE	2.875" O.D. STEEL PIPE
GATE POST UP THRU 6' LEAF	2.875" O.D. STEEL PIPE	2.875" O.D. STEEL PIPE	2.875" O.D. STEEL PIPE
GATE POST 7' THRU 12' LEAF	4.000" O.D. STEEL PIPE	4.000" O.D. STEEL PIPE	4.000" O.D. STEEL PIPE
BRACE RAIL	1.660" O.D. STEEL PIPE	1.660" O.D. STEEL PIPE	1.250" X 1.625" STEEL R.F. OR 1.660" O.D. STEEL PIPE

**FOR 6' FENCE SYSTEMS**

**ALLOWABLE COMPONENTS FOR FENCE SYSTEMS**

ROADWAY STANDARD DRAWING FOR

**CHAIN LINK FENCE**

4', 5' AND 6' HIGH FENCE

1-18

STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

**MEMORANDUM OF AGREEMENT  
AMONG THE UNITED STATES COAST GUARD,  
UNITED STATES ARMY CORPS OF ENGINEERS,  
THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION,  
THE NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER,  
AND  
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING THE  
IMPROVEMENTS TO US 17 BUSINESS FROM CHURCH STREET TO NC 37  
INCLUDING THE REPLACEMENT OF BRIDGE NO. 8 OVER THE PERQUIMANS  
RIVER IN HERTFORD, PERQUIMANS COUNTY, NORTH CAROLINA  
TIP NO. R-4467**

**WHEREAS**, the United States Coast Guard (USCG) is the federal agency responsible for the processing of a federal bridge permit application for the Improvements to US 17 Business from Church Street to NC 37 including the replacement of Bridge Number 8 over the Perquimans River in Hertford, Perquimans County, North Carolina (the Undertaking) pursuant to the General Bridge Act of 1946 (33 U.S.C. §§ 525-533) and the Coast Guard bridge regulations (33 CFR. Subchapter J)[[]]; and

**WHEREAS**, the United States Army Corps of Engineers (USACE), intends to issue a Nationwide Permit, pursuant to 33 CFR 330, and to rely upon the findings and consultation process of the USCG, as the lead federal agency for the Undertaking; and

**WHEREAS**, the USCG has determined that the Undertaking will have an adverse effect upon the Hertford Historic District and Perquimans Bridge Number 8, properties listed in the National Register of Historic Places (NRHP); and

**WHEREAS**, the USCG 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 (54 U.S.C. 300101 et seq.); and

**WHEREAS**, the USCG has notified the Advisory Council on Historic Preservation (Council) of the adverse effect and the Council participated in the consultation; and

**WHEREAS**, NCDOT has participated in the consultation and has been invited by the USCG and SHPO to be a signatory to this Memorandum of Agreement (MOA); and

**WHEREAS**, the Town of Hertford (Town), the Citizens for the Preservation and Growth of Hertford, represented by Sara E. Winslow, and Hertford citizens Nancy Theodore, Frank and Connie Jaklic, Penny Byrd, Robert E. Halter, Virginia Miller, Don Keith, Leslie E. Piercy, Rhonda Waters, and Margaret and Charles Lindsay have participated in the consultation and have been invited by the USCG and SHPO to be concurring parties to this MOA;

**NOW, THEREFORE**, the USCG, USACE, NCDOT, SHPO and Council agree that the Undertaking shall be implemented in accordance with the following stipulations to take into account the effects of the Undertaking on the historic properties and that these stipulations shall govern the Undertaking and all of its parts unless this MOA expires or is terminated.

## **STIPULATIONS**

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

### **I. Photographic Recordation**

Prior to the initiation of construction, NCDOT will record the existing conditions of the properties and landscapes in the Hertford Historic District, including Perquimans Bridge Number 8 that are located adjacent to or affected by the project in accordance with the attached Historic Structures and Landscape Recordation Plan (Appendix A).

The results of the photographic recordation will be submitted to the SHPO in advance of any work taking place. The SHPO shall have fifteen (15) days from receipt of the materials to review and comment. If no comments are received by NCDOT after the 15 days, work may commence.

Copies of the documentation will be deposited in the files of the SHPO, NCDOT Historic Architecture Group, and the Town and be made available to other signatories to this MOA.

### **II. Design of Replacement Bridge**

NCDOT has worked with the primary signatories and concurring parties on the plans for the replacement bridge and associated retaining walls to develop a unified design that incorporates context sensitive design principles and follows NCDOT's aesthetic guidelines. These design elements include:

- A. Truss swing span;
- B. Oregon rails;
- C. Decorative pedestrian lights which match the streetlights throughout the town;
- D. Safety standard vertical lift gates;
- E. Two observational bump-outs on the bridge;
- F. Sidewalks on the east side of the bridge;
- G. Reuse current bridge plaque on new bridge and add a second bridge plaque for the new bridge;
- H. Retaining walls of stamped concrete within the historic district;
- I. Signs on NCDOT property stating authorized vehicles and personnel only;
- J. Flag pole with US and NC flags lit dusk to dawn;
- K. Fenders composed of artificial timber and includes lights and signs.

### **III. Design of the Tender House**

NCDOT, in consultation with the primary signatories and concurring parties, shall develop

plans for the tender house and parking spaces designated for use by the bridge operator and bridge maintenance crew to develop a unified design that incorporates context sensitive design principles and follows NCDOT's aesthetic guidelines. These design elements include:

- A. A two-story structure above the bridge deck with the generator housed inside the tender house;
- B. Hipped roof structure with fiber cement siding;
- C. Multi-light windows with pedimented arches;
- D. A three-foot wide walkway around the second story;
- E. An escape ladder on the east side of the tender house.

#### **IV. Landscape Plan**

NCDOT, in consultation with the primary signatories and concurring parties, shall develop a landscape plan for the south side of the bridge within the Hertford Historic District contained within the NCDOT right-of-way.

#### **V. Vibration Monitoring**

To minimize vibration effects on the historic district in the vicinity of the bridge, a vibration monitoring and enforcement program shall be implemented by NCDOT as part of the construction contract. The Design-Build Team shall employ a vibration monitoring firm from NCDOT's list of approved firms to perform pre and post construction inventories and vibration monitoring of buildings located within 200 feet of the mainline project limits in the historic district. The inventories will require the appointed firm has access to the interior of buildings in the area being monitored.

If vibration levels rise above the prescribed thresholds that could cause structural damage to any building the contractor, or the property owners shall immediately contact the Resident Engineer. If structural damages are discovered during this period, work in that area of the project shall immediately cease and NCDOT shall contact SHPO and the property owners immediately to determine what steps should be taken to address the damage. After completion of all vibration inducing construction activities, vibration monitoring equipment may be discontinued. If vibration monitoring is to be discontinued prior to completion of the Undertaking, property owners will be notified by NCDOT.

#### **VI. Unanticipated Discovery**

In accordance with 36 CFR 800.11(a), if NCDOT identifies additional cultural resource(s) during construction and determines them to be eligible for the NRHP, all work will be halted within the limits of the NRHP-eligible resource(s) and the USCG and North Carolina SHPO contacted within 48 hours. If after consultation with the Signatory Parties and additional mitigation is determined necessary, the NCDOT, in consultation with the Signatory Parties, will develop and implement appropriate protection/mitigation measures for the resource(s). NCDOT will notify the SHPO and USCG of any findings of additional cultural resources that are determined to not be eligible for NRHP listing.

Inadvertent or accidental discovery of human remains will be handled in accordance with North Carolina General Statutes 65 and 70.

## **VII. Dispute Resolution**

Should any of the Signatory or Concurring Parties object within (30) days to any plans or documentation provided for review pursuant to this MOA, the USCG shall consult with the objecting party(ies) to resolve the objection. If the USCG or the objecting party(ies) determines that the objection cannot be resolved, the USCG 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:

- A. Provide the USCG with recommendations, which the USCG will take into account in reaching a final decision regarding the dispute, or
- B. Notify the USCG that it will comment pursuant to 36 CFR 800.7(c). Any Council comment provided in response to such a request will be taken into account by the USCG in accordance with 36 CFR 800.7(c) (4) with reference to the subject of the dispute. Any recommendation or comment provided by the Council will be understood to pertain only to the subject of the dispute; USCG and NCDOT's responsibility to carry out all of the actions under this agreement that are not the subject of the dispute will remain unchanged.

## **VIII. Amendments**

Should any of the Signatory or Concurring Parties to this MOA believe that its terms cannot be carried out or that an amendment to the terms must be made, that 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 VII will be followed.

## **IX. Termination**

Any of the Signatory Party (ies) may terminate the MOA by providing 30 days written notice to the other parties, provided that the signatories 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.

## **X. Duration**

Unless terminated pursuant to Stipulation IX above, this MOA will be in effect until December 31, 2027. Prior to such time, the USCG may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance to the dispute resolution process set forth in Stipulation VII.

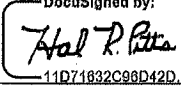
## **XI. Other Provisions**

- A. Nothing in this MOA is intended to conflict with current law or regulation or the directives of the USCG or Department of Homeland Security. If this MOA is inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this agreement shall remain in full force and effect.
- B. This MOA is not an agreement by the United States, USCG to indemnify any party, nor is it an agreement by the United States, USCG to assume financial, legal, or any other liabilities.
- C. Nothing in this MOA shall constitute an obligation of funds of the United States in advance of an appropriation of those funds.

## **XII. Effective Date**

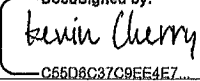
The terms of this MOA will become effective upon issuance of the Coast Guard bridge permit.

**AGREED:**

By:  DocuSigned by:  
11D71832C98D42D...

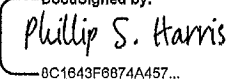
Mr. Hal R. Pitts  
District Bridge Manager  
Fifth Coast Guard District

Date: 12/8/2017

By:  DocuSigned by:  
C65D8C37C9EE4E7...

Kevin Cherry, Ph.D.  
North Carolina State Historic Preservation Officer  
North Carolina Department of Cultural Resources

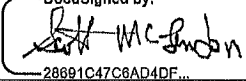
Date: 12/5/2017

By:  DocuSigned by:  
8C1643F6874A457...

Philip S. Harris III, P.E., C.P.M.  
Environmental Analysis Unit Head  
North Carolina Department of Transportation

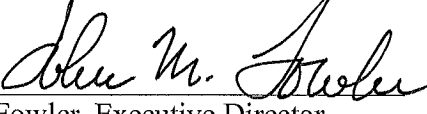
Date: 12/5/2017

for

By:  DocuSigned by:  
28691C47C6AD4DF...

Robert J. Clark  
Colonel, U.S. Army  
District Commander  
US Army Corps of Engineers

Date: 12/6/2017

By:   
John M. Fowler, Executive Director  
Advisory Council on Historic Preservation

Date: 1/10/18

**MEMORANDUM OF AGREEMENT  
AMONG THE UNITED STATES COAST GUARD,  
UNITED STATES ARMY CORPS OF ENGINEERS,  
THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION,  
THE NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER,  
AND  
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING THE  
IMPROVEMENTS TO US 17 BUSINESS FROM CHURCH STREET TO NC 37  
INCLUDING THE REPLACEMENT OF BRIDGE NO. 8 OVER THE PERQUIMANS  
RIVER IN HERTFORD, PERQUIMANS COUNTY, NORTH CAROLINA  
TIP NO. R-4467**

Execution of this MOA by USCG, USACE, NCDOT, ACHP, and the North Carolina SHPO, and implementation of its terms, evidence that the USCG, as the lead federal agency, has afforded the Council an opportunity to comment on the Undertaking.

**CONCUR:**

\_\_\_\_\_  
Brandon S. Shoaf  
Town Manager, Town of Hertford

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

**MEMORANDUM OF AGREEMENT  
AMONG THE UNITED STATES COAST GUARD,  
UNITED STATES ARMY CORPS OF ENGINEERS,  
THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION,  
THE NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER,  
AND  
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING THE IMPROVEMENTS TO US 17 BUSINESS FROM CHURCH  
STREET TO NC 37 INCLUDING THE REPLACEMENT OF BRIDGE NO. 8 OVER  
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CAROLINA  
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**CONCUR:**

\_\_\_\_\_  
Sara. E Winslow  
Citizens for the Preservation and Growth of Hertford

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

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AMONG THE UNITED STATES COAST GUARD,  
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**CONCUR:**

\_\_\_\_\_  
Nancy Theodore  
103 Phelps Street  
Hertford, NC 27944

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

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UNITED STATES ARMY CORPS OF ENGINEERS,  
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**CONCUR:**

\_\_\_\_\_  
Frank Jaklic  
401 N Church Street  
Hertford, NC 27944

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

\_\_\_\_\_  
Connie Jaklic  
401 N Church Street  
Hertford, NC 27944

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

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**CONCUR:**

\_\_\_\_\_  
Virginia Miller  
405 North Front Street  
Hertford, NC 27944

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

**MEMORANDUM OF AGREEMENT  
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**CONCUR:**

\_\_\_\_\_  
Don Keith  
405 North Front Street  
Hertford, NC 27944

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

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**CONCUR:**

\_\_\_\_\_  
Penny Byrd  
137 Broad River Drive  
Hertford, NC 27944

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

**MEMORANDUM OF AGREEMENT  
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**CONCUR:**

\_\_\_\_\_  
Robert E. Halter  
105 Little River Circle  
Hertford, NC 27944

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

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TIP NO. R-4467**

**CONCUR:**

\_\_\_\_\_  
Leslie E. Piercy  
202 Front Street  
Hertford, NC 27944

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

**MEMORANDUM OF AGREEMENT  
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**CONCUR:**

\_\_\_\_\_  
Rhonda Waters  
217 North Church Street  
Hertford, NC 27944

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

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**CONCUR:**

\_\_\_\_\_  
Margaret Lindsay  
306 N Front Street  
Hertford, NC 27944

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

\_\_\_\_\_  
Charles Lindsay  
306 N Front Street  
Hertford, NC 27944

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

## **APPENDIX A**

### **Historic Structures and Landscape Recordation Plan For Improvements to US 17 Business from Church Street to NC 37 including the Replacement of Bridge No. 8 over the Perquimans River in Hertford, Perquimans County, North Carolina TIP No. R-4467**

#### **Photographic Requirements**

- Elevations and oblique views of the properties affected by the R-4467 project within the Hertford Downtown Historic District, including Perquimans Bridge Number 8.
- Representative street/landscapes within the affected areas of historic district.

#### **Photographic Format**

- Color digital images (all views). Images are to be shot on a SLR digital camera with a minimum resolution of 6 megabyte pixels, at a high quality (preferably RAW) setting, to be saved in TIF format as the archival masters and labeled according to the State Historic Preservation Office standards.
- Images provided to the Town will be in JPEG format.
- All processing to be done to archival standards.
- Labeled map with a key to the shots and photographs
- The accompanying printed inventory of the images – including subject, location, date, and photographer information for each image – is to be completed according to the State Historic Preservation Office standards.

#### **Copies and Curation**

- One (1) set of all above mentioned photographic documentation, including a compact disc of labeled images, will be deposited with the North Carolina Office of Archives and History/Historic Preservation Office to be made a permanent part of the statewide survey and iconographic collection.
- One (1) contact sheet shall be deposited in the files of the Historic Architecture Group of NCDOT.

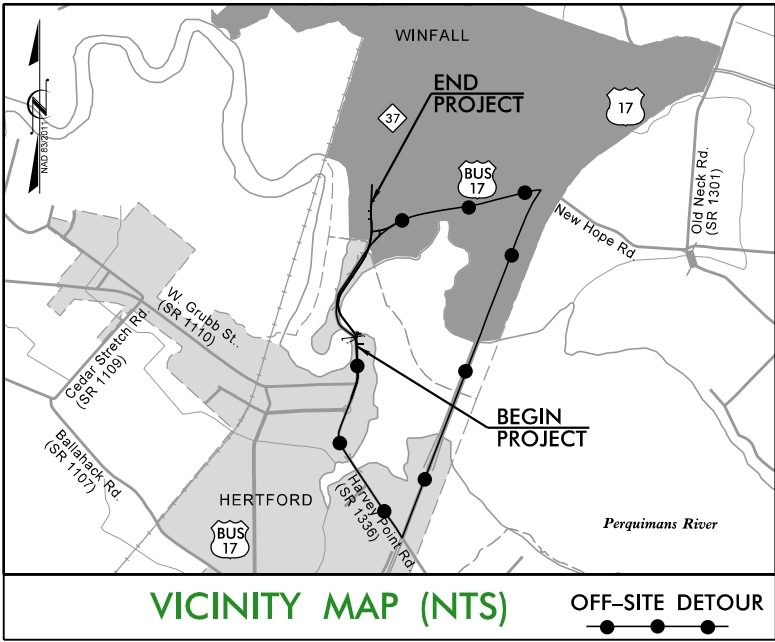
09/08/99

2/6/2019  
R:\Hydraulics\PERMITS\Environmental\Drawings\4C\R-4467\_PRM\_wet\_tsh.dgn  
aburke

TIP PROJECT: R-4467

CONTRACT: C204003

See Sheet 1-B For Conventional Symbols



VICINITY MAP (NTS)

OFF-SITE DETOUR

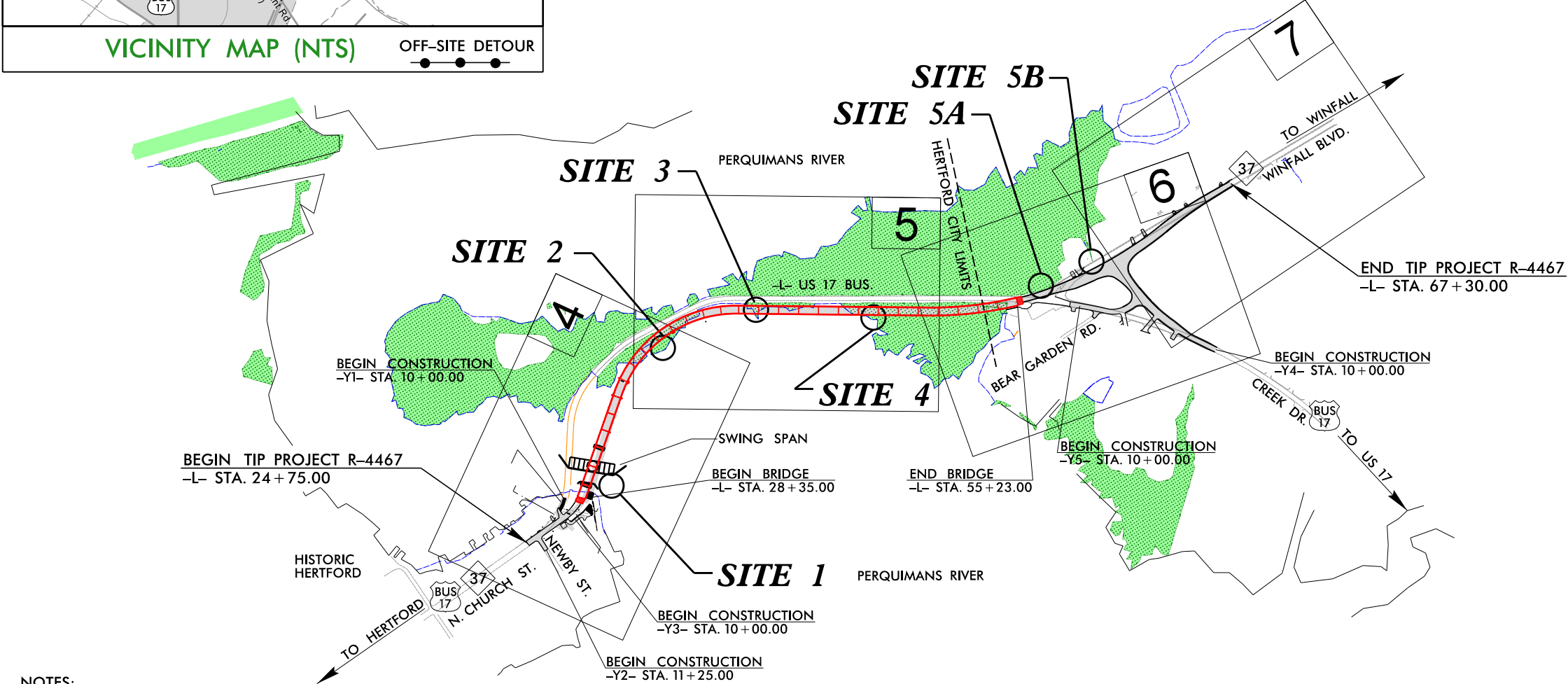
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PERQUIMANS COUNTY

LOCATION: US 17 BUSINESS /NC 37 (NORTH CHURCH STREET)  
FROM SOUTH OF THE PERQUIMANS RIVER BRIDGE TO  
NORTH OF NC 37 (WINFALL BOULEVARD)

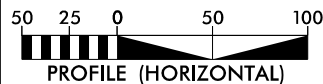
TYPE OF WORK: GRADING, DRAINAGE, PAVING, LIGHTING  
SIGNALS, SIGNING, ITS & STRUCTURES

WETLAND AND STREAM IMPACTS



- NOTES:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
  2. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF HERTFORD AND THE TOWN OF WINFALL.
  3. DESIGN EXCEPTION REQUIRED FOR HORIZONTAL STOPPING SIGHT DISTANCE AND SUPERELEVATION AT -L- PI STATION 28+26.83.

GRAPHIC SCALES



DESIGN DATA

ADT 2017 = 10,100

ADT 2037 = 16,500

SOUTH APPROACH & BRIDGE

V = 30 MPH  
FUNC. CLASS. = URBAN COLLECTOR

NORTH OF BRIDGE

V = 50 MPH  
FUNC. CLASS. = RURAL COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-4467.....0.296 mi  
LENGTH STRUCTURE TIP PROJECT R-4467.....0.509 mi  
TOTAL LENGTH TIP PROJECT R-4467.....0.805 mi

NCDOT CONTACT

K. Zak Hamidi, P.E.  
PROJECT ENGINEER - DESIGN-BUILD GROUP

PLANS PREPARED BY:



RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE, SUITE 350  
RALEIGH, NORTH CAROLINA 27609  
NC LICENSE NO. P-0112

FOR NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

LETTING DATE:  
JANUARY 2, 2018



Michael T. Merritt, P.E.  
PROJECT ENGINEER

Anthony A. Houser, P.E.  
PROJECT DESIGN ENGINEER

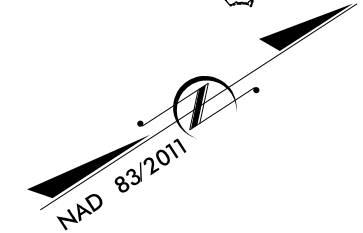
HYDRAULICS  
ENGINEER

SIGNATURE: P.E.

ROADWAY  
DESIGN  
ENGINEER

SIGNATURE: P.E.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4467	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
35748.3.2	N/A		



PERMIT DRAWING  
SHEET 1 OF 17

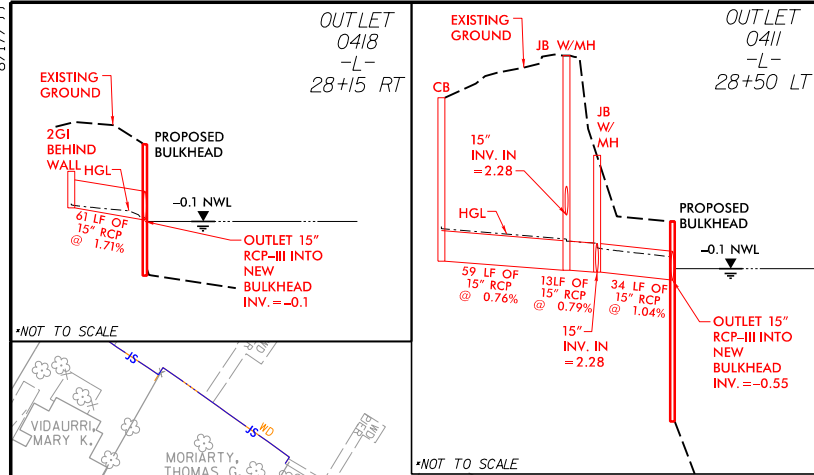


PREPARED ON: 7-27-2018  
REVISED: 2-06-2019

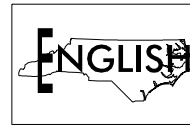
INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



8/17/99



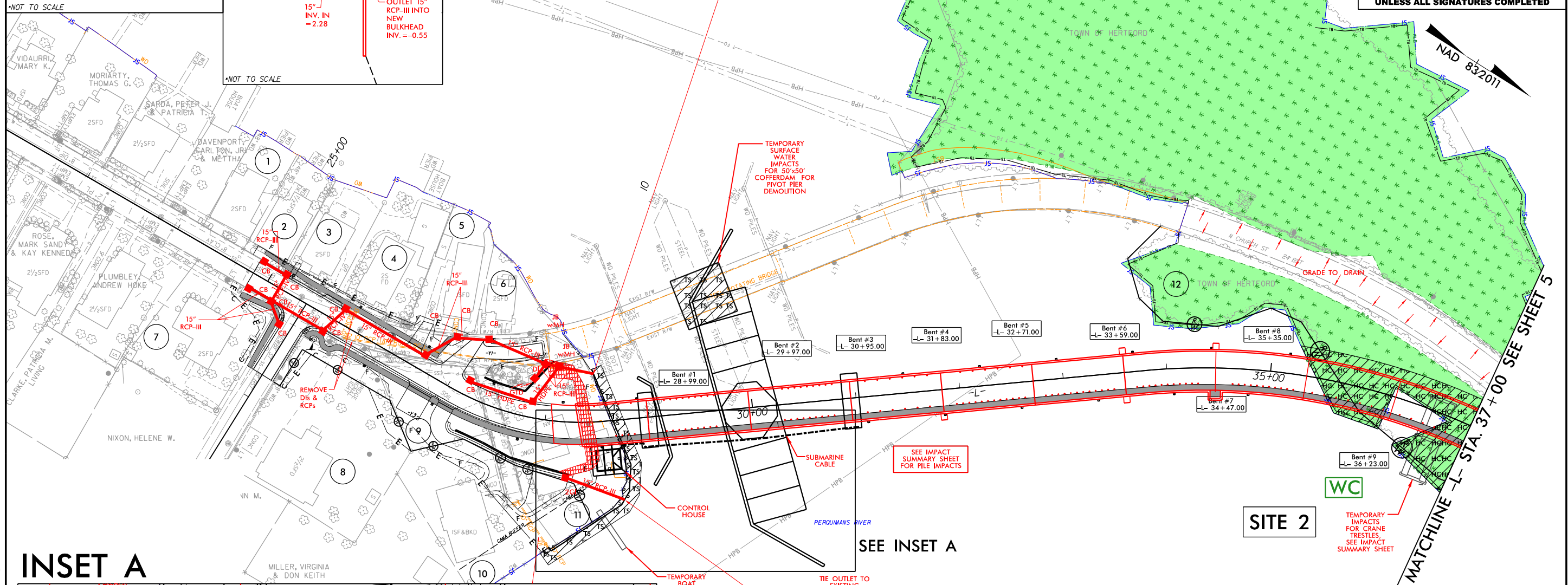
# PERMIT DRAWING SHEET 2 OF 17



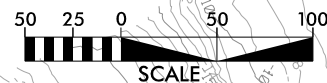
PERQUIMANS RIVER

- HC HC DENOTES HAND CLEARING
- S S DENOTES IMPACTS IN SURFACE WATER
- TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER




PROJECT REFERENCE NO.	SHEET NO.
R-4467	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



PERMIT DRAWING  
SHEET 3 OF 17



PERUJIMANS RIVER

	DENOTES HAND CLEARING
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



NAD 83/2011

SEE SHEET 5

**SITE 2**

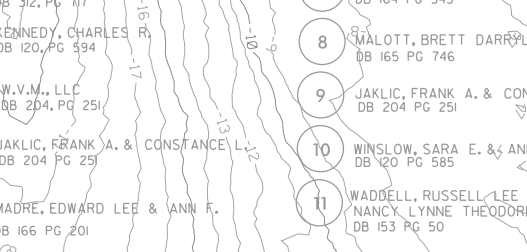
WC

TEMPORARY -  
IMPACTS  
FOR CRANE  
TRESTLES,  
SEE IMPACT  
SUMMARY SHEET

SEE INSET A

**SITE 1**

## PARCEL NUMBERS AND PROPERTY OWNERS

- 
- 1 HOLLOWELL, BRENDA  
DB 312, PG 717
- 2 KENNEDY, CHARLES R.  
DB 120, PG 594
- 3 W.V.M., LLC  
DB 204, PG 251
- 4 JAKLIC, FRANK A. & CONSTANCE L.  
DB 204 PG 251
- 5 MADRE, EDWARD LEE & ANN F.  
DB 166 PG 201
- 6 VAYDA, MARGARET M.  
DB 97 PG 507
- 7 SMITH, RICHARD W. & JEAN P.  
DB 164 PG 545
- 8 MALOTT, BRETT DARRYL & MARY  
DB 165 PG 746
- 9 JAKLIC, FRANK A. & CONSTANCE L.  
DB 204 PG 251
- 10 WINSLOW, SARA E. & ANNE W.  
DB 120 PG 585
- 11 WADDELL, RUSSELL LEE & NANCY LYNNE THEODORE  
DB 153 PG 50

PREPARED ON: 7-27-2018  
REVISED: 2-06-2019

SEE ROADWAY PLANS  
FOR DECK DRAIN SPACING

**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

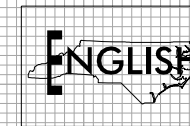
## INSET A

The topographic map displays the project area with contour lines indicating elevation. Key features include:

- Proposed Infrastructure:** A red line representing the 15" RCP-III sewer line, starting from the existing 15" RCP-III line and extending towards the HPB (High Pressure Bulkhead).
- Existing Infrastructure:** A 24" RCP-III line, a 30" RCP-III line, and a 36" RCP-III line are shown in black.
- Water Features:** A red hatched area indicates a wetland or water feature. A blue line represents a water feature, possibly a stream or canal.
- Impact Areas:** Two red lines point to specific areas of impact:
  - TEMPORARY SURFACE WATER IMPACTS TO CONSTRUCT BULK HEAD:** Points to a small area near the HPB.
  - PERMANENT SURFACE WATER IMPACTS FOR BULK HEAD:** Points to a larger area near the HPB.
- Other Labels:** "WD" (Wetland), "CAM" (Canal), "HPB" (High Pressure Bulkhead), "PERQUIMANS" (Perquimans River), and "TS" (Topographic Station) are visible.

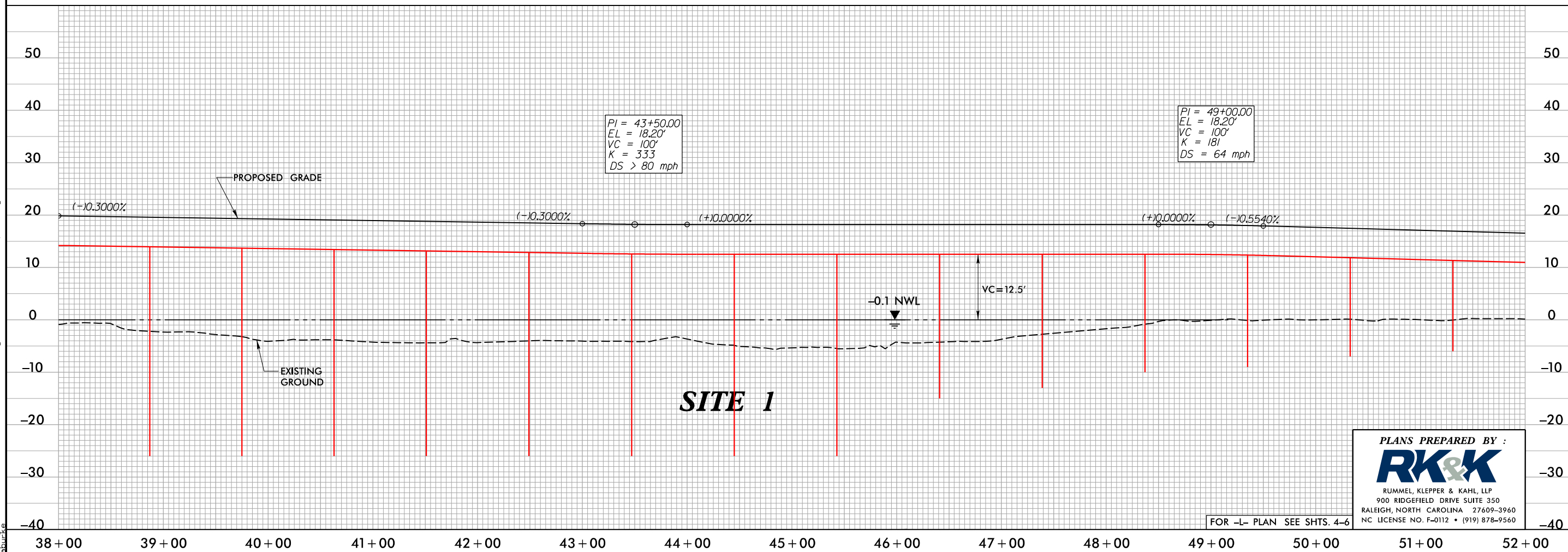
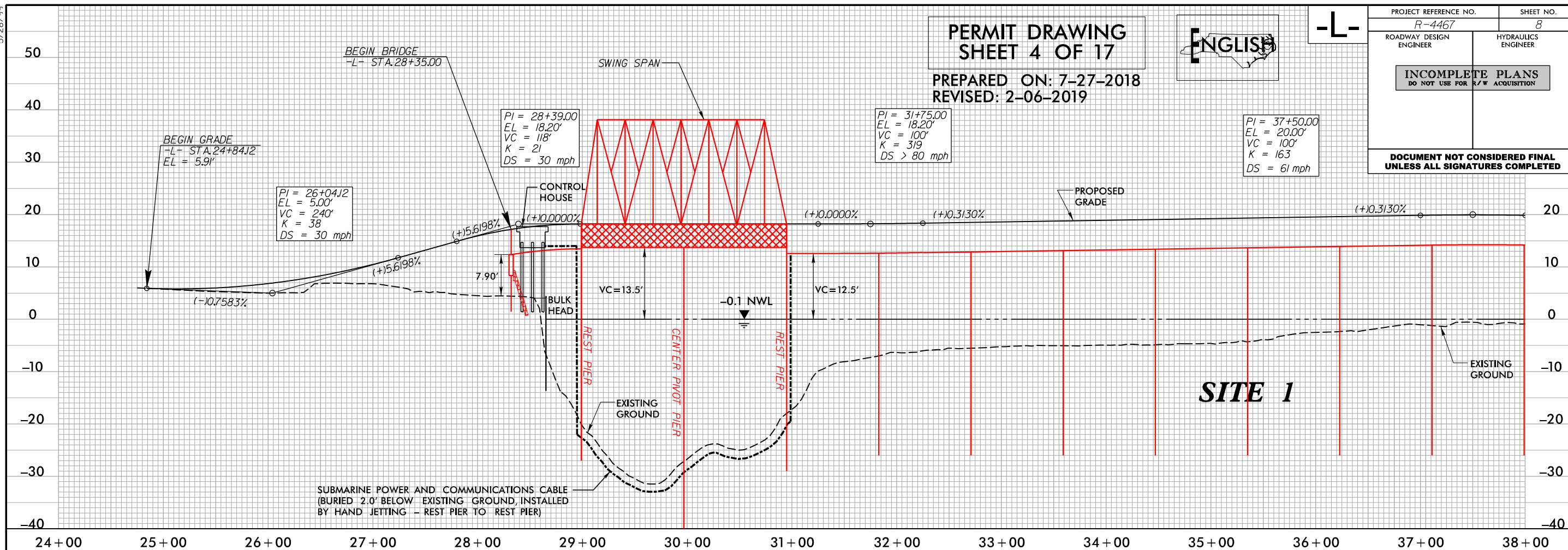
5/28/99

PERMIT DRAWING  
SHEET 4 OF 17  
PREPARED ON: 7-27-2018  
REVISED: 2-06-2019



-L-

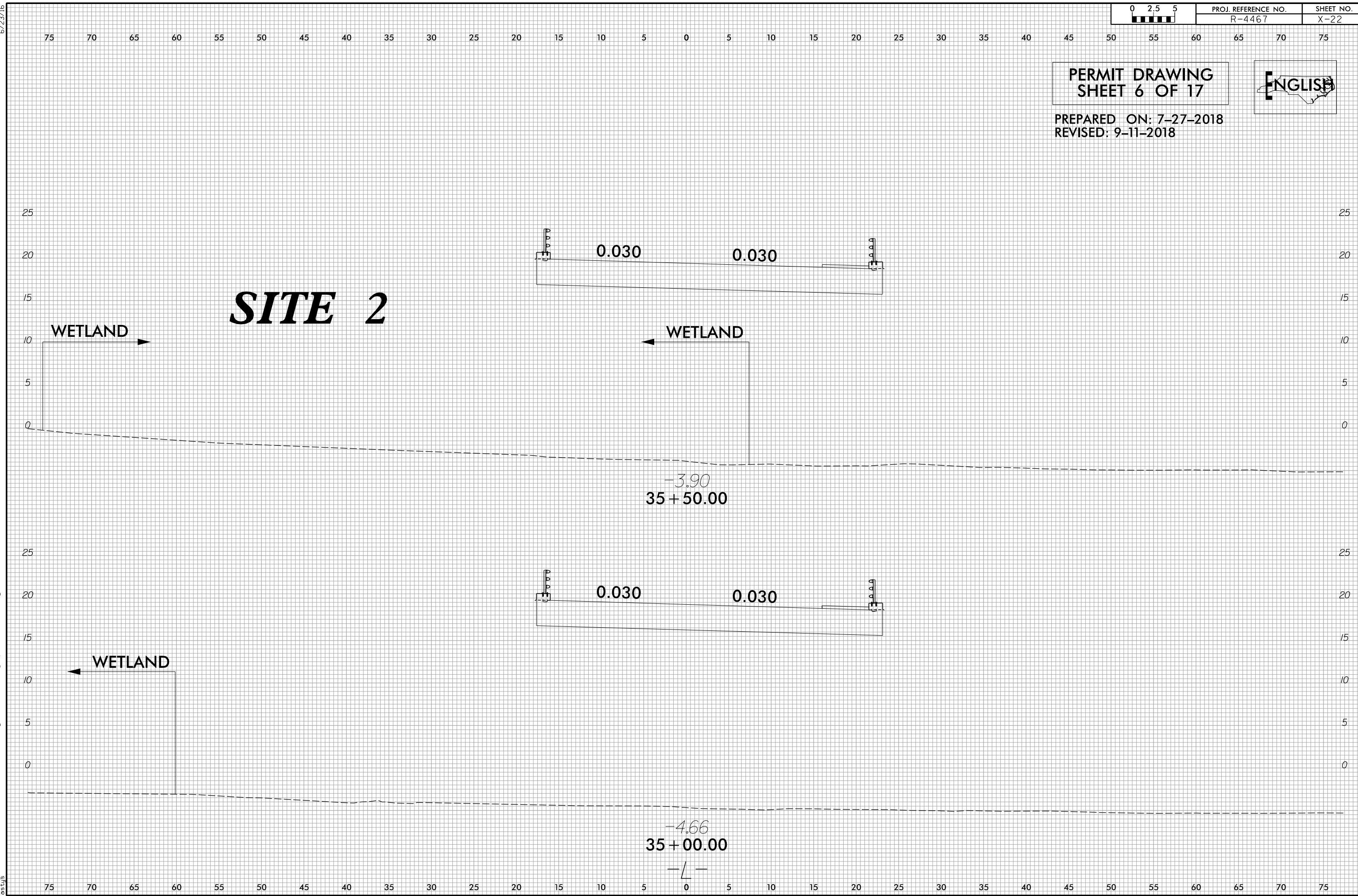
PROJECT REFERENCE NO.	SHEET NO.
R-4467	8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



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

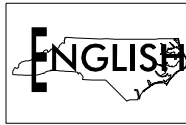
FOR -L- PLAN SEE SHTS. 4-6





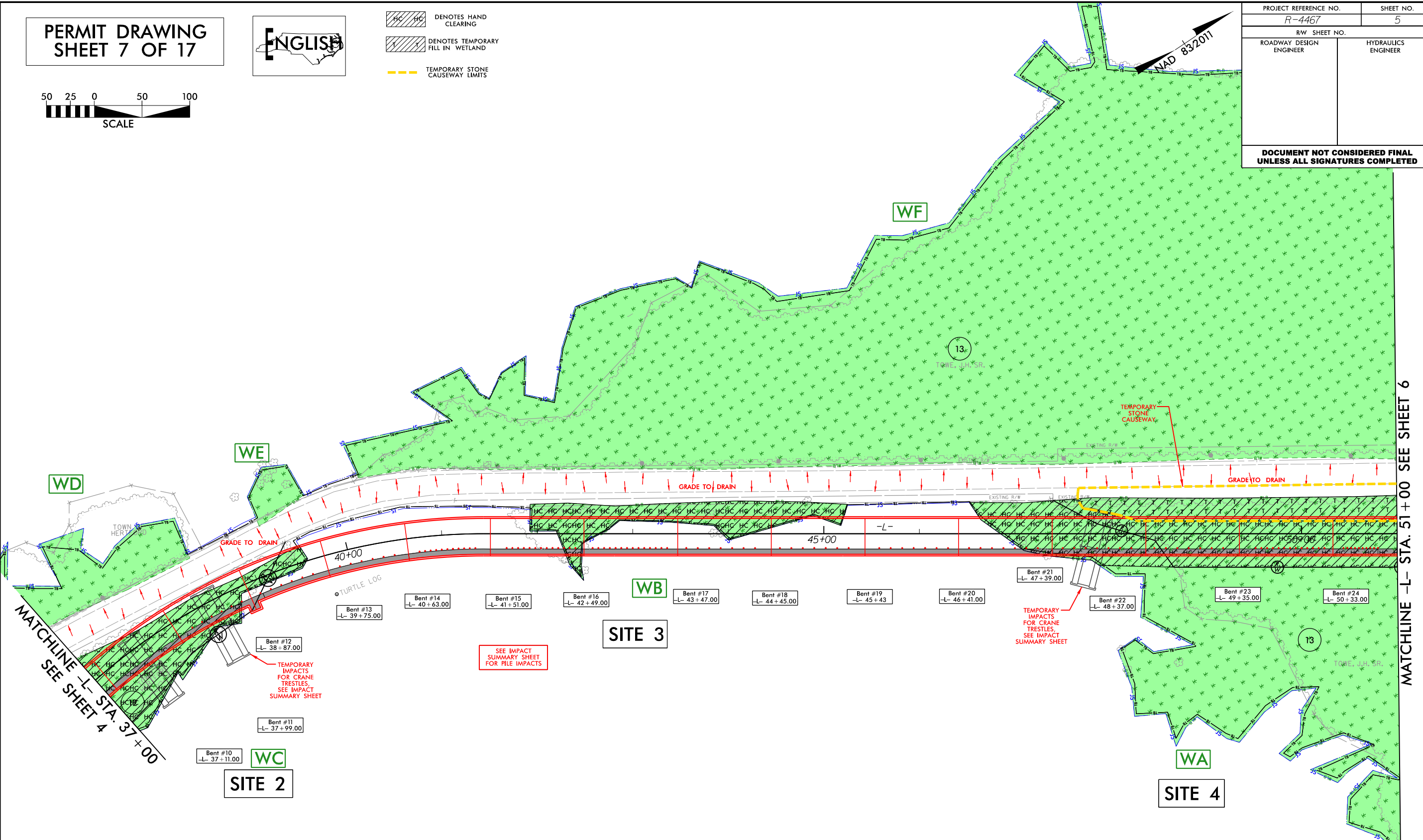
8/17/99

# PERMIT DRAWING SHEET 7 OF 17



- DENOTES HAND CLEARING
- DENOTES TEMPORARY FILL IN WETLAND
- TEMPORARY STONE CAUSEWAY LIMITS

PROJECT REFERENCE NO. <i>R-4467</i>		SHEET NO. <i>5</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



PREPARED ON: 7-27-2018  
REVISED: 9-11-2018

SEE ROADWAY PLANS  
FOR DECK DRAIN SPACING

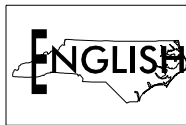
PLANS PREPARED BY :

**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
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8/14/2018  
RJK

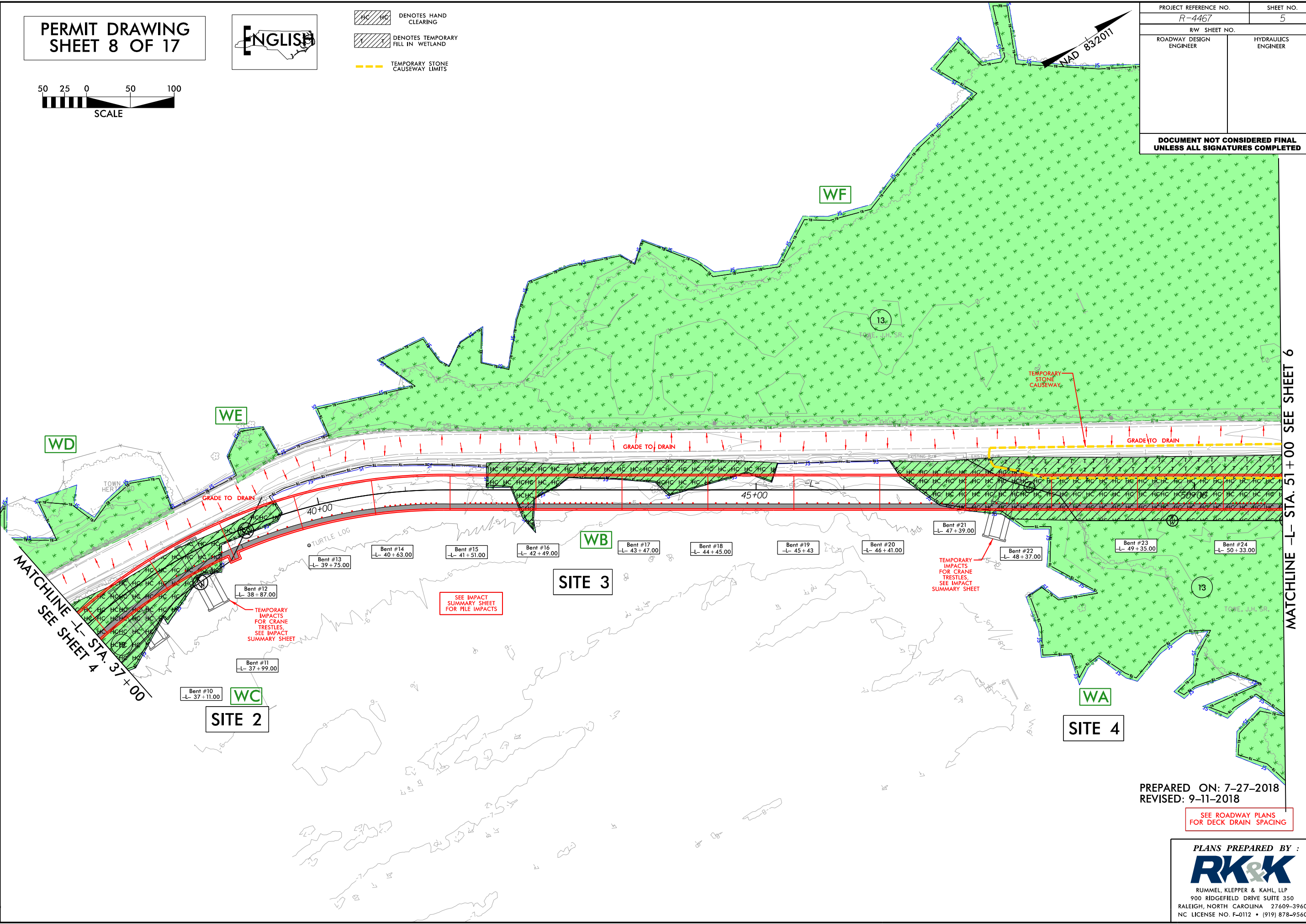
8/17/99

PERMIT DRAWING  
SHEET 8 OF 17



- DENOTES HAND CLEARING
- DENOTES TEMPORARY FILL IN WETLAND
- TEMPORARY STONE CAUSEWAY LIMITS

PROJECT REFERENCE NO.		SHEET NO.	
R-4467		5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



PREPARED ON: 7-27-2018  
REVISED: 9-11-2018

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FOR DECK DRAIN SPACING

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6/23/16

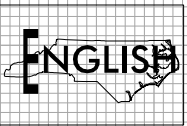
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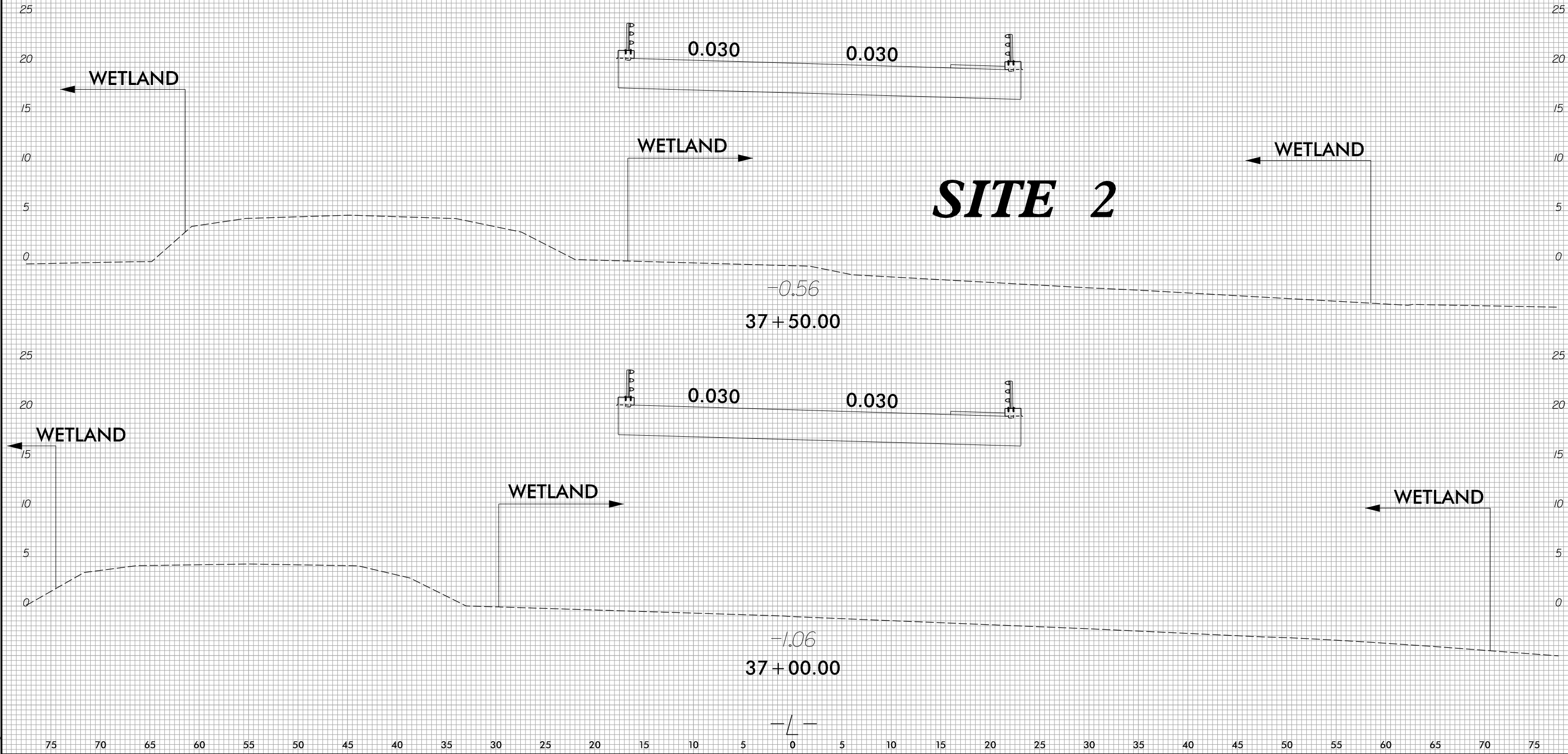
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R-4467

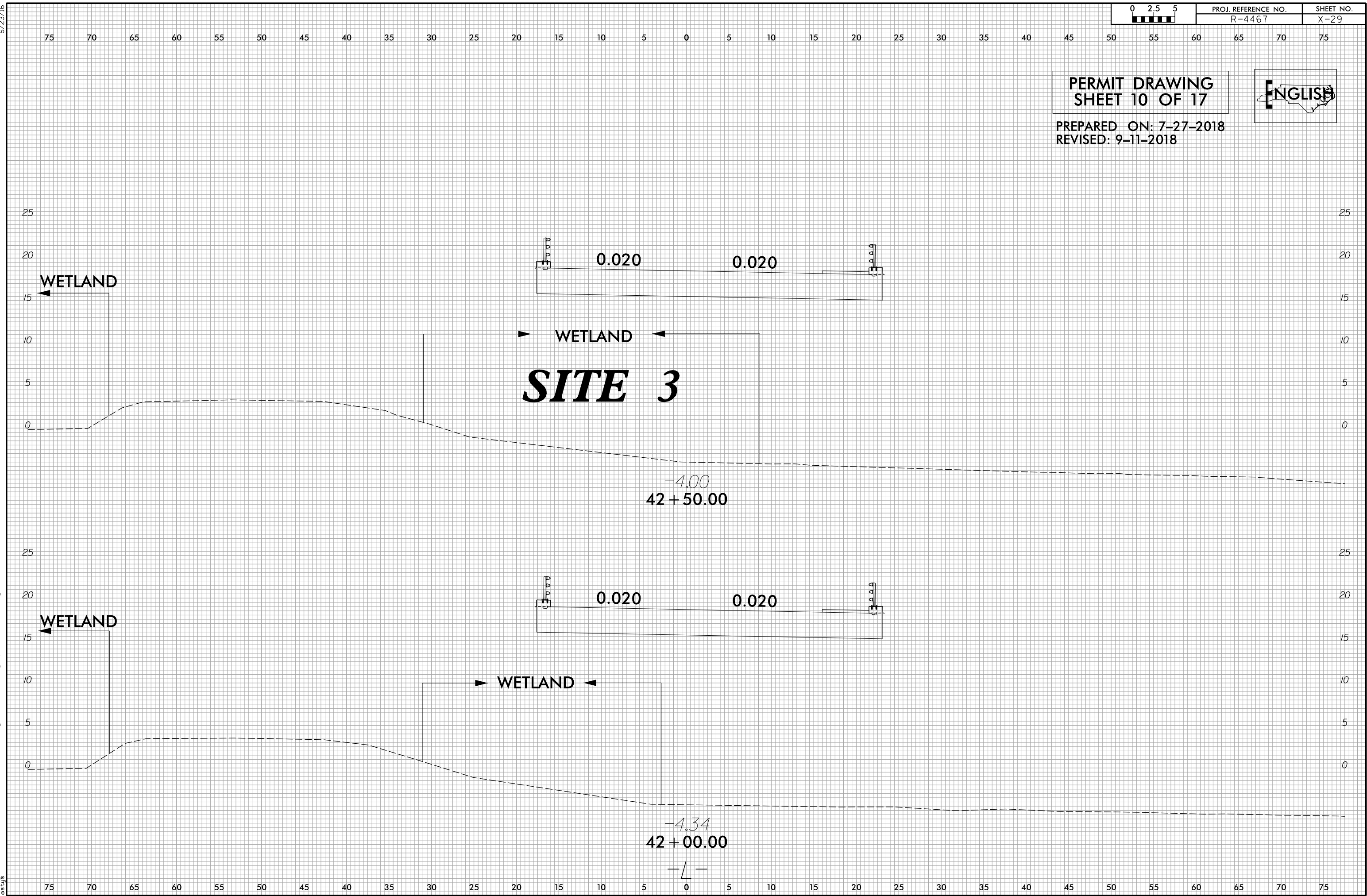
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PERMIT DRAWING  
SHEET 9 OF 17




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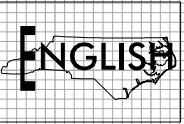


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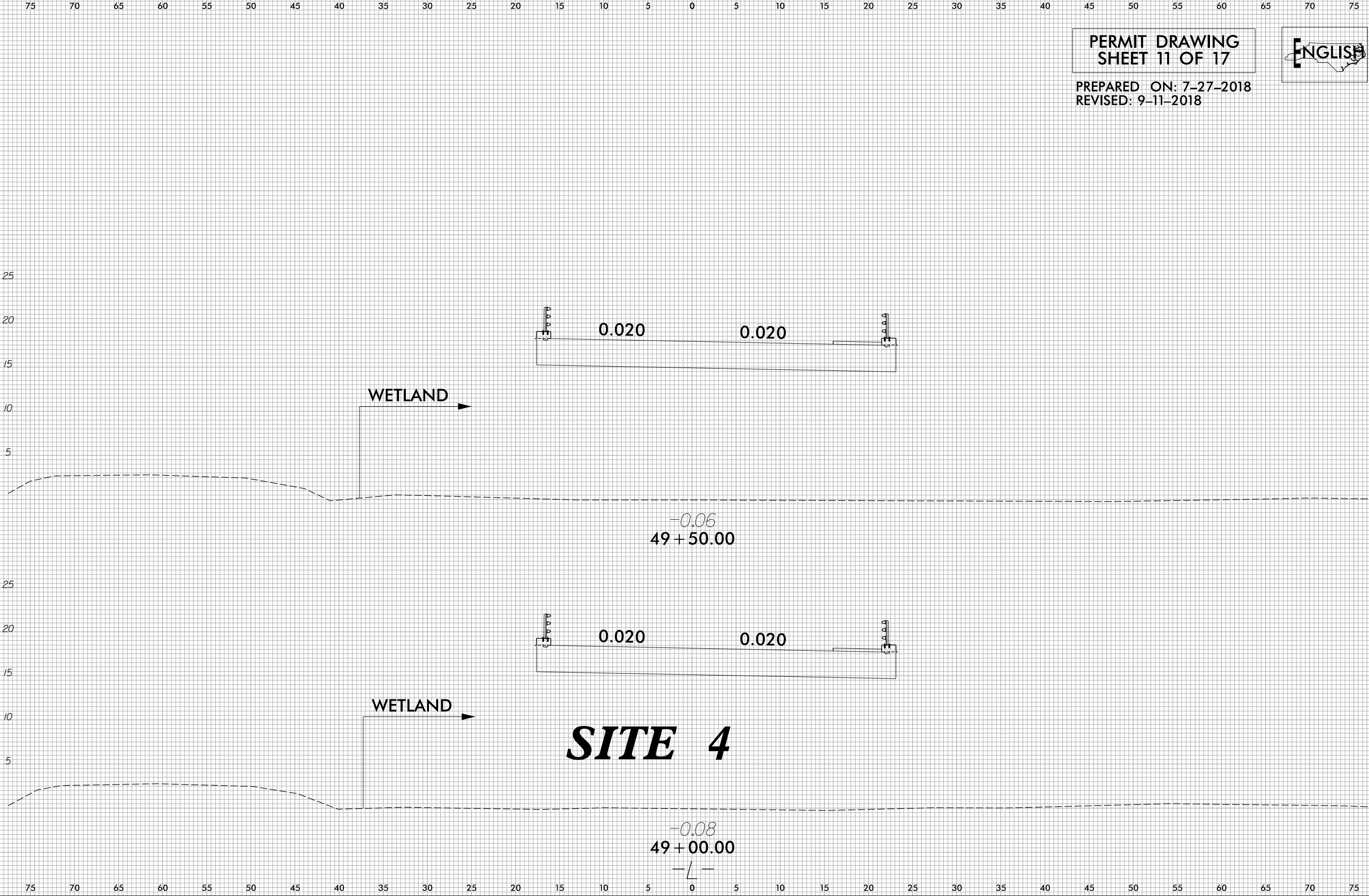
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	R-4467	X-36

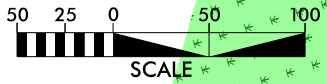
PERMIT DRAWING  
SHEET 11 OF 17



PREPARED ON: 7-27-2018  
REVISED: 9-11-2018



PERMIT DRAWING  
SHEET 12 OF 17



ENGLISH

HC HC DENOTES HAND  
CLEARING  
F F DENOTES TEMPORARY  
FILL IN WETLAND  
F F DENOTES FILL IN  
WETLAND

CAMA WETLAND  
BOUNDARY  
TEMPORARY STONE  
CAUSEWAY LIMITS

SEE  
INSET B

OUTLET 0604  
-L- 57+17 LT  
Q10=5.9 CFS  
V10=0.8 FTS

SITE 5A

TEMPORARY  
STONE  
CAUSEWAY

TEMPORARY  
PIPE EXTENSION  
& MP-RAP  
PAD

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INSET B

INSET A

POND A

MATCHLINE -L- STA. 51+00 SEE SHEET 5

MATCHLINE -Y4- STA. 9+50

MATCHLINE -L- STA. 63+25 SEE SHEET 7

MATCHLINE -Y4- STA. 9+50  
SEE INSET

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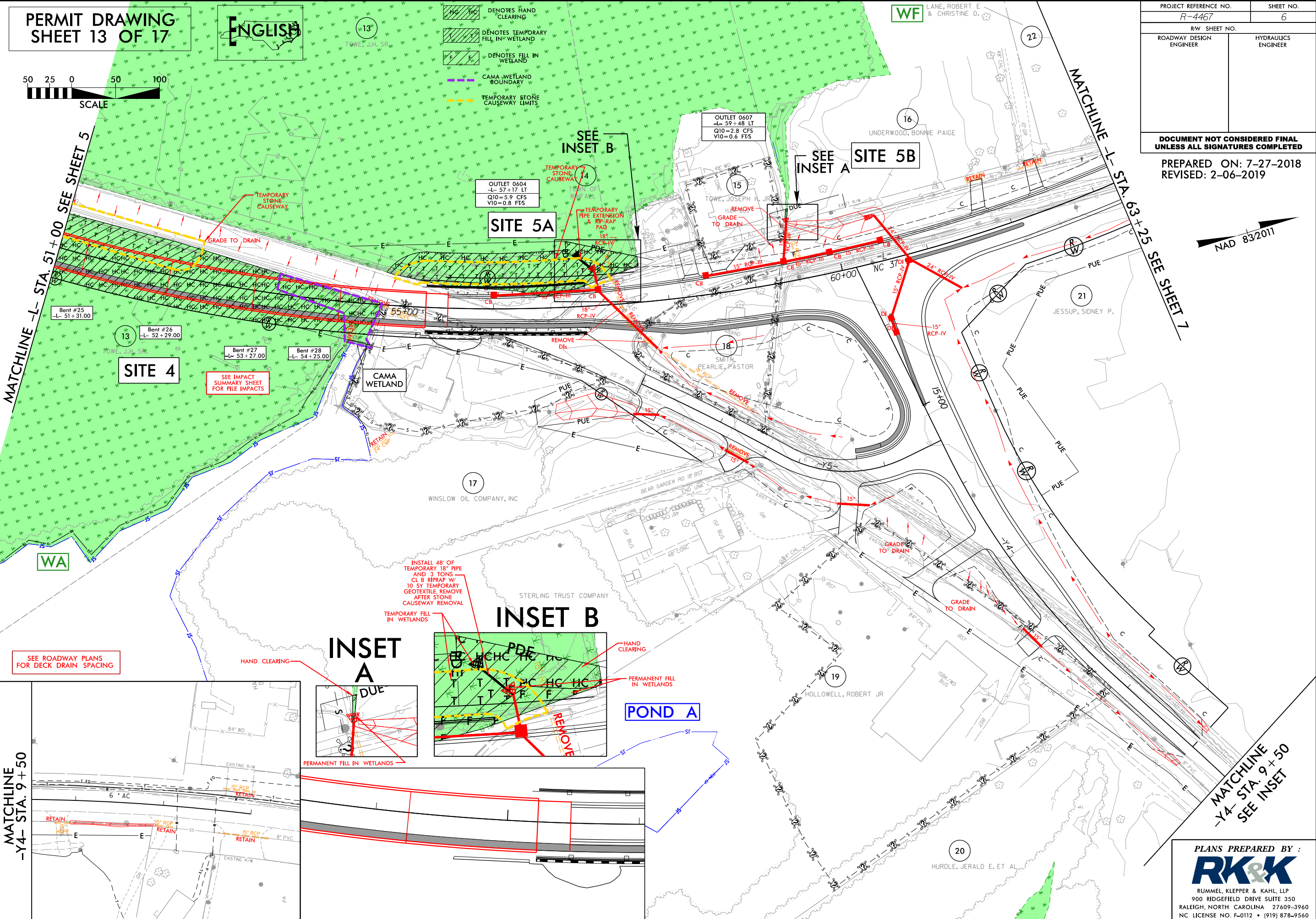
PREPARED ON: 7-27-2018  
REVISED: 2-06-2019

PROJECT REFERENCE NO. R-4467	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/2011

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aburke



PROJECT REFERENCE NO.	SHEET NO.
R-4467	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PREPARED ON: 7-27-2018  
REVISED: 2-06-2019



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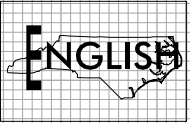
RUMMEL, KLEPPER & KAHL, LLP  
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6/23/16

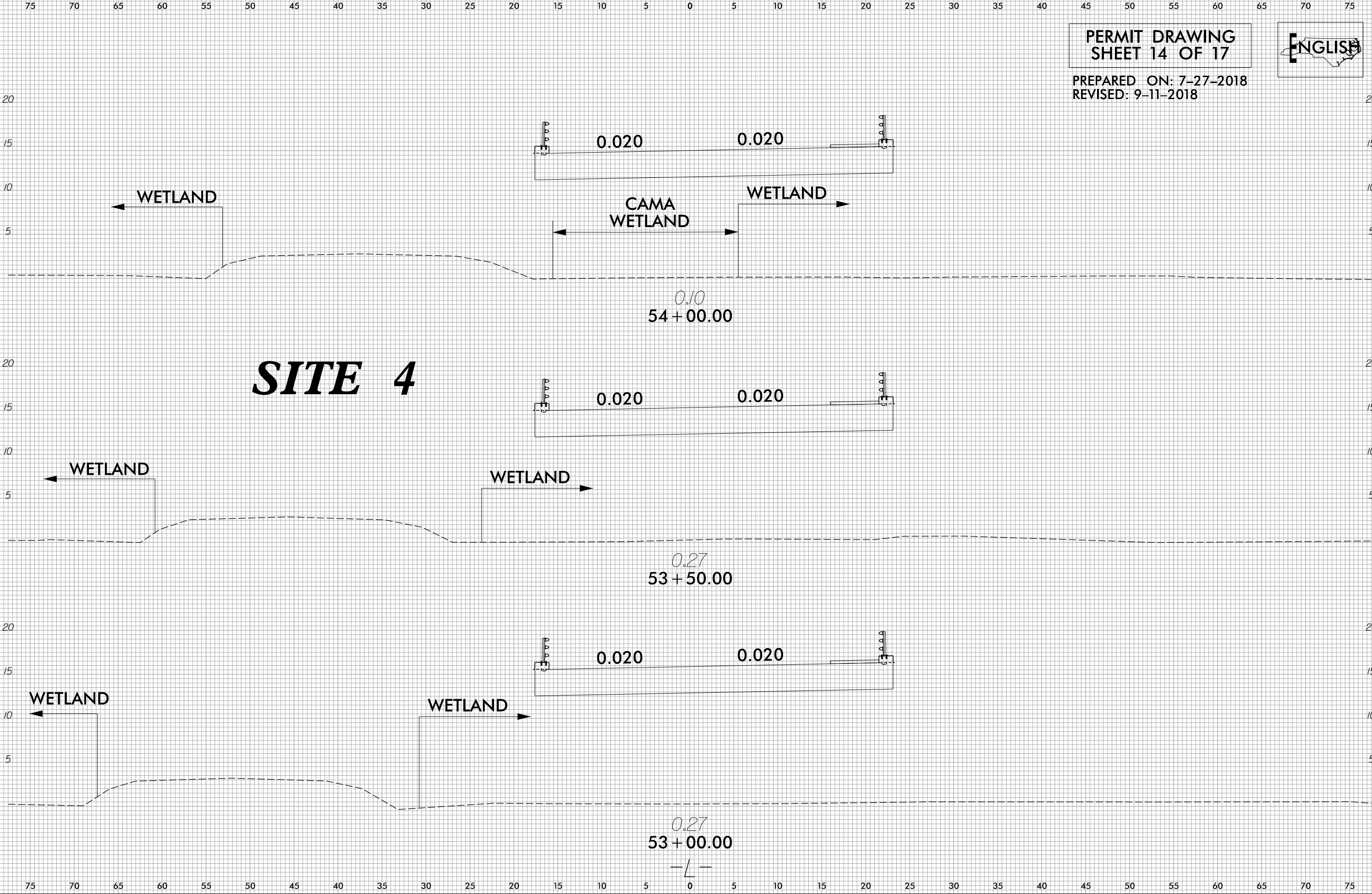
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	R-4467	X-39

PERMIT DRAWING  
SHEET 14 OF 17

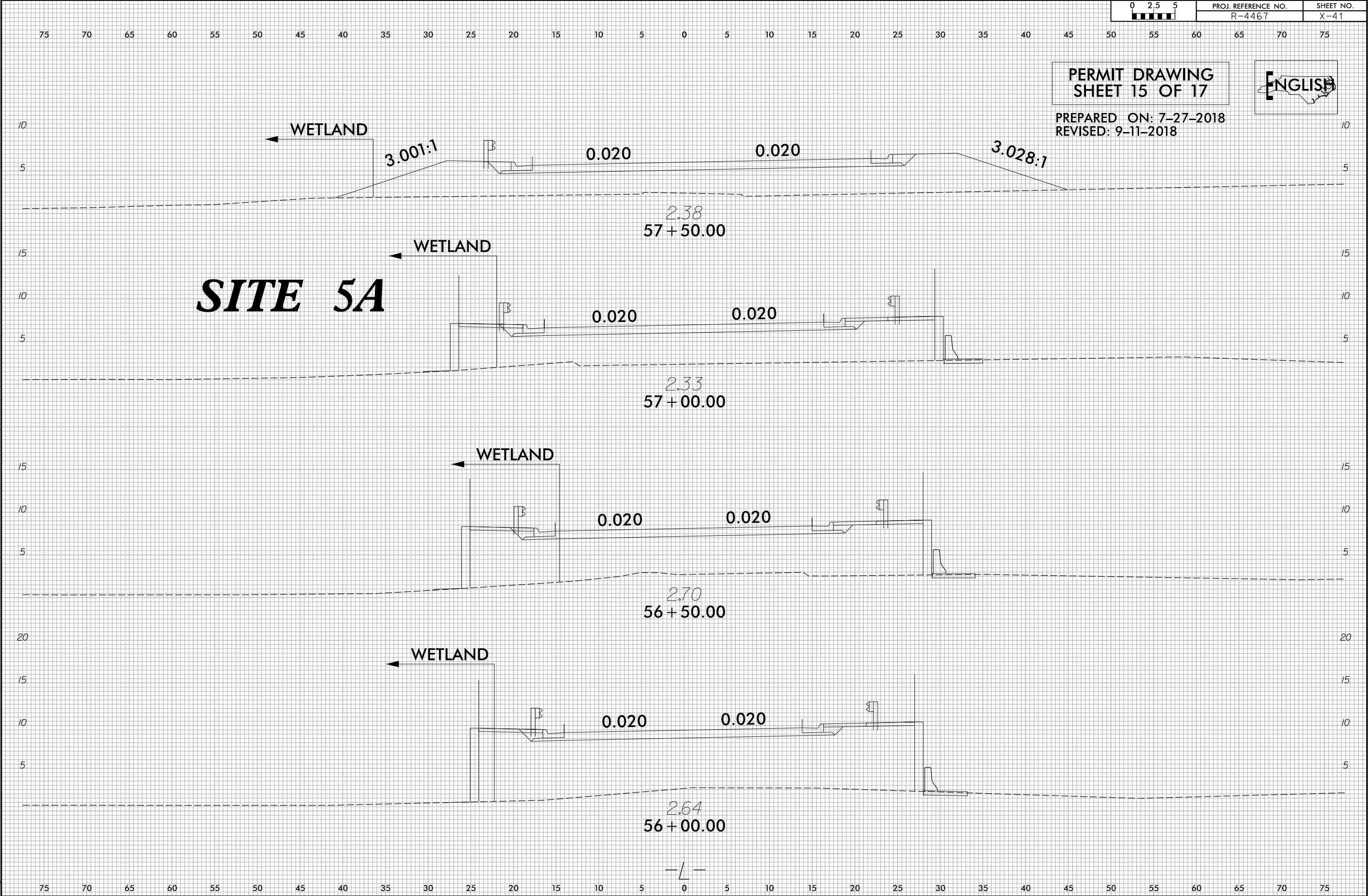


PREPARED ON: 7-27-2018  
REVISED: 9-11-2018



6/23/16

9/11/2018  
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easys



6/23/16

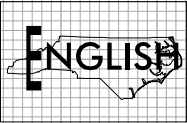


PROJ. REFERENCE NO.  
R-4467

SHEET NO.  
X-42

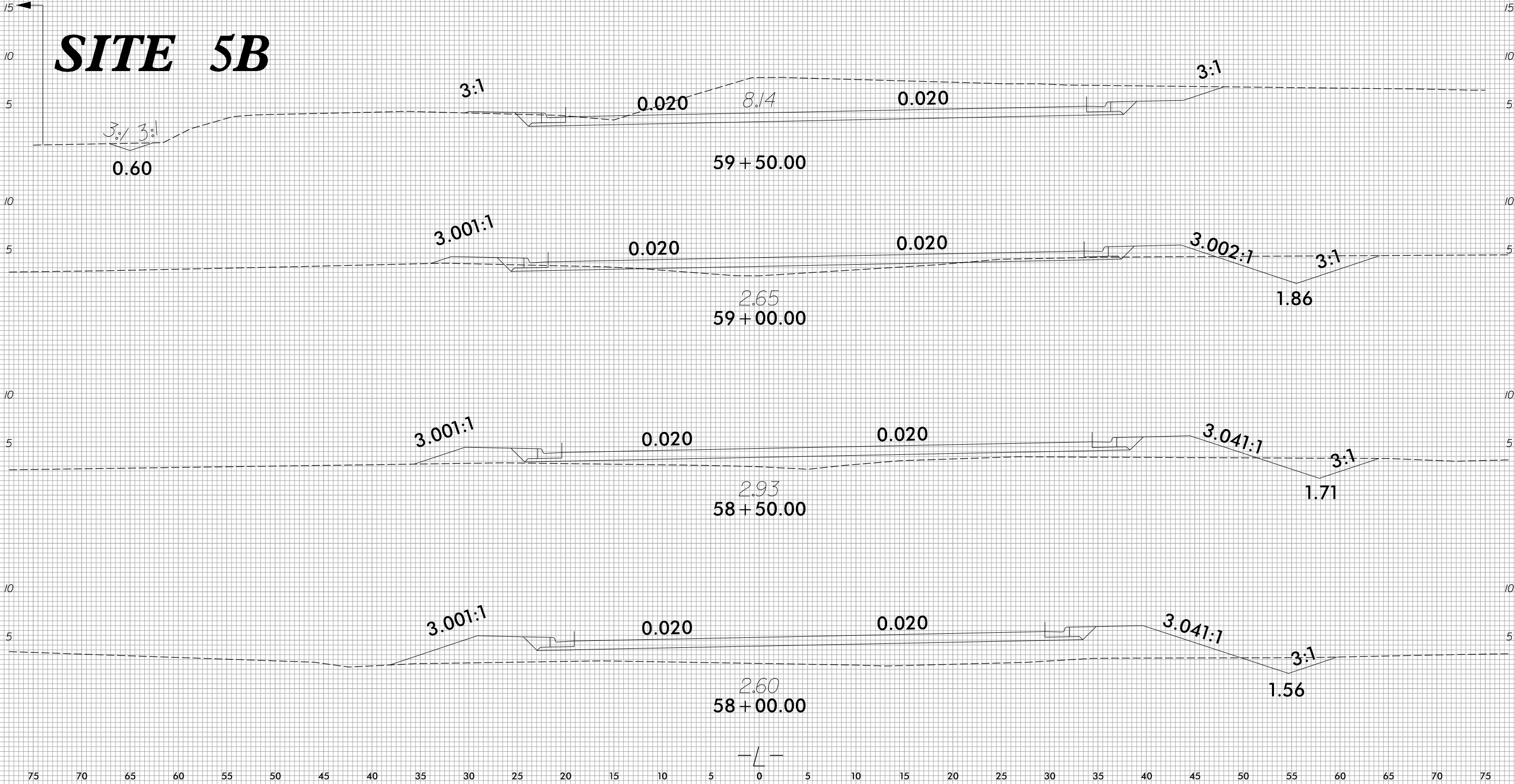
PERMIT DRAWING  
SHEET 16 OF 17

PREPARED ON: 7-27-2018  
REVISED: 9-11-2018



WETLAND

**SITE 5B**



WETLAND AND SURACE WATER IMPACTS SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 28+08 to 28+89	BULK HEAD AT PERQUIMANS RIVER						0.01	0.06			
	-L-28+32 to 55+23	BRIDGE - 29 SPANS: 1@67' (45" FLORIDA I-BEAM); 2@98' (SWING SPAN TRUSS); 12@88', 14@98' (54" FLORIDA I-BEAM); WITH 4' CAPS AND SLOPED ABUTMENTS <sup>1</sup>						0.02	0.01			
	-L- 29+32 to 29+95 LT	50'x50' COFFERDAM FOR PIVOT PIER DEMOLITION							0.06			
2	-L- 35+28 to 39+58	BRIDGE CONSTRUCTION BETWEEN BENTS #8 & 13 <sup>2</sup>	< 0.01	< 0.01			0.49					
3	-L- 41+93 to 45+23	BRIDGE CONSTRUCTION BETWEEN BENTS #15 & 19 <sup>3</sup>	< 0.01	< 0.01			0.21					
4	-L- 46+59 to 54+65	BRIDGE CONSTRUCTION BETWEEN BENTS #20 & END BENT <sup>4</sup>	< 0.01	< 0.01			0.93					
		TEMPORARY STONE CAUSEWAY <sup>5</sup>		0.28								
5A	-L- 54+68 to 57+64 LT	TEMPORARY STONE CAUSEWAY		0.12			0.08					
		FILL SLOPE & 18" PIPE OUTLET	0.05									
5B	-L- 59+45 LT	15" PIPE OUTLET	< 0.01				< 0.01					
TOTALS*:			0.06	0.40			1.71	0.03	0.13	0	0	0

\*Rounded totals are sum of actual impacts

NOTES:

1. Permanent Surface Water Impacts for Piles: 833.2 sf  
Temporary Surface Water Impacts for Piles: 527.2 sf  
Temporary Surface Water Impacts for Moorings : 56.5 sf  
Temporary Surface Water Impacts for Boat Landing : 1.8 sf
2. Permanent Fill in Wetland Impacts for Piles : 92 sf  
Temporary Fill in Wetland Impact for Piles: 31 sf
3. Permanent Fill in Wetland Impacts for Piles : 34 sf  
Temporary Fill in Wetland Impact for Piles: 22 sf
4. Permanent Fill in Wetland Impacts for Piles : 281 sf  
Temporary Fill in Wetland Impact for Piles : 88 sf  
Permanent Fill in CAMA Wetlands for Piles : 16 sf
5. Hand Clearing in CAMA Wetlands (Site 4) : 3014 sf

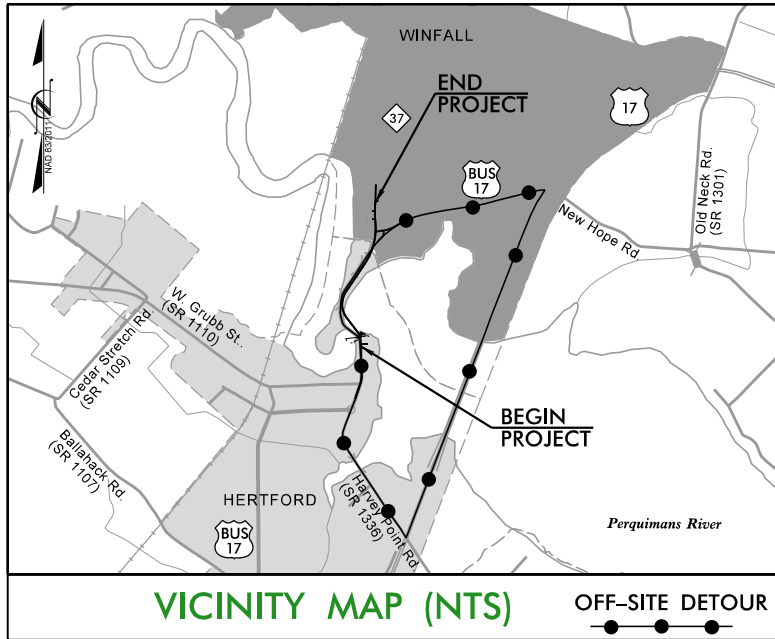
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aburke

TIP PROJECT: R-4467

CONTRACT: C204003

See Sheet 1-B For Conventional Symbols



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

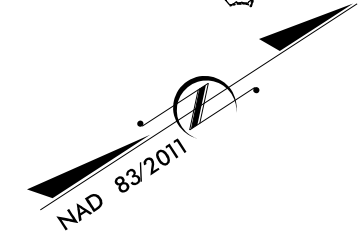
PERQUIMANS COUNTY

LOCATION: US 17 BUSINESS / NC 37 (NORTH CHURCH STREET)  
FROM SOUTH OF THE PERQUIMANS RIVER BRIDGE TO  
NORTH OF NC 37 (WINFALL BOULEVARD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, LIGHTING  
SIGNALS, SIGNING, ITS & STRUCTURES

JURISDICTIONAL IMPACTS  
FOR UTILITIES

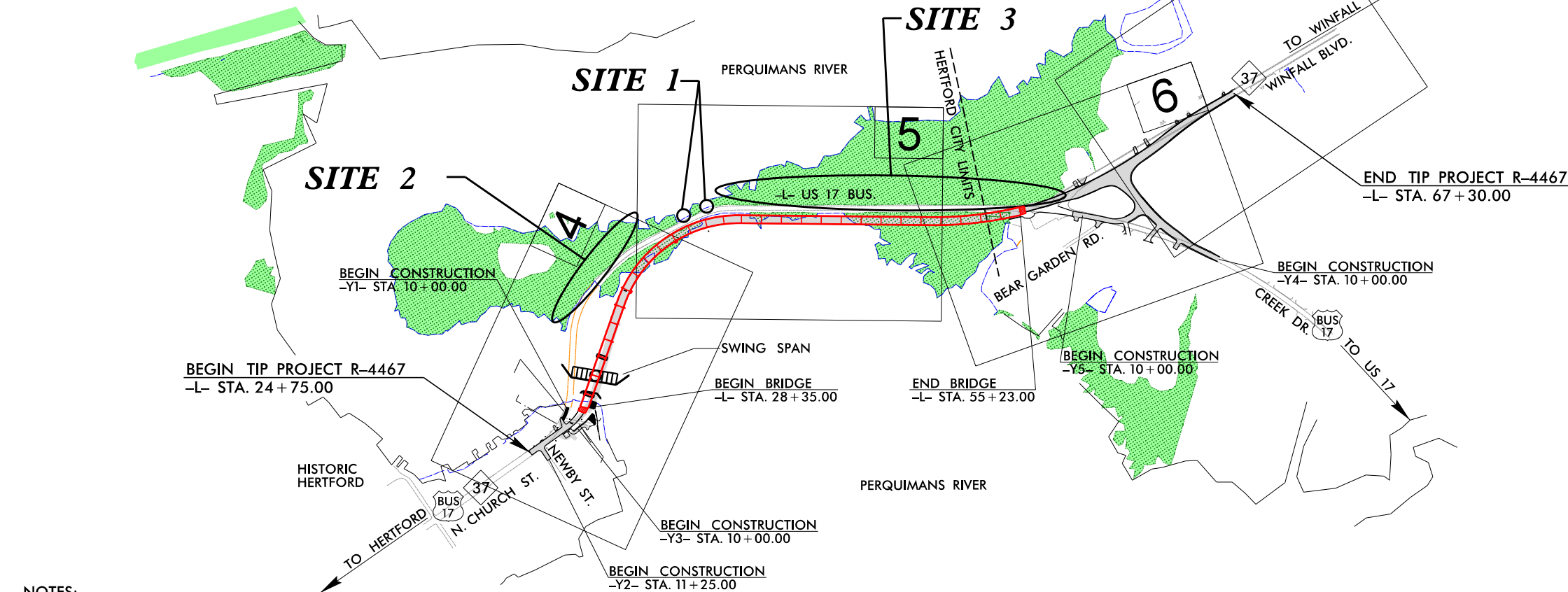
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4467	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
35748.3.2	N/A		



UTILITY  
PERMIT DRAWING  
SHEET 1 OF 8

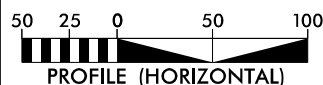
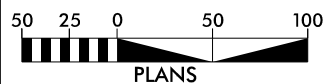


PREPARED ON: 7-27-2018  
REVISED: 2-06-2019



- NOTES:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
  2. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF HERTFORD AND THE TOWN OF WINFALL.
  3. DESIGN EXCEPTION REQUIRED FOR HORIZONTAL STOPPING SIGHT DISTANCE AND SUPERELEVATION AT -L- PI STATION 28+26.83.

GRAPHIC SCALES



DESIGN DATA

ADT 2017 = 10,100

ADT 2037 = 16,500

SOUTH APPROACH & BRIDGE

V = 30 MPH  
FUNC. CLASS. = URBAN COLLECTOR

NORTH OF BRIDGE

V = 50 MPH  
FUNC. CLASS. = RURAL COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-4467.....0.296 mi  
LENGTH STRUCTURE TIP PROJECT R-4467.....0.509 mi  
TOTAL LENGTH TIP PROJECT R-4467.....0.805 mi

NCDOT CONTACT

K. Zak Hamidi, P.E.  
PROJECT ENGINEER - DESIGN-BUILD GROUP

PLANS PREPARED BY:



RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE, SUITE 950  
RALEIGH, NORTH CAROLINA 27609  
NC LICENSE NO. F-0112

FOR NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

LETTING DATE:  
JANUARY 2, 2018



Michael T. Merritt, P.E.  
PROJECT ENGINEER

Anthony A. Houser, P.E.  
PROJECT DESIGN ENGINEER

HYDRAULICS  
ENGINEER

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

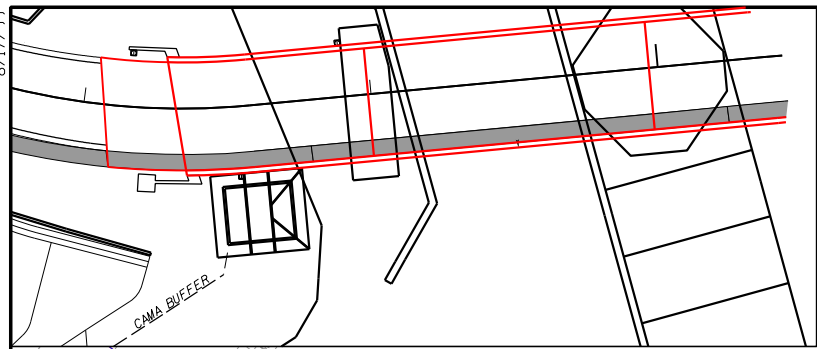
ROADWAY  
DESIGN  
ENGINEER

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

INCOMPLETE PLANS  
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UTILITY  
PERMIT DRAWING  
SHEET 2 OF 8

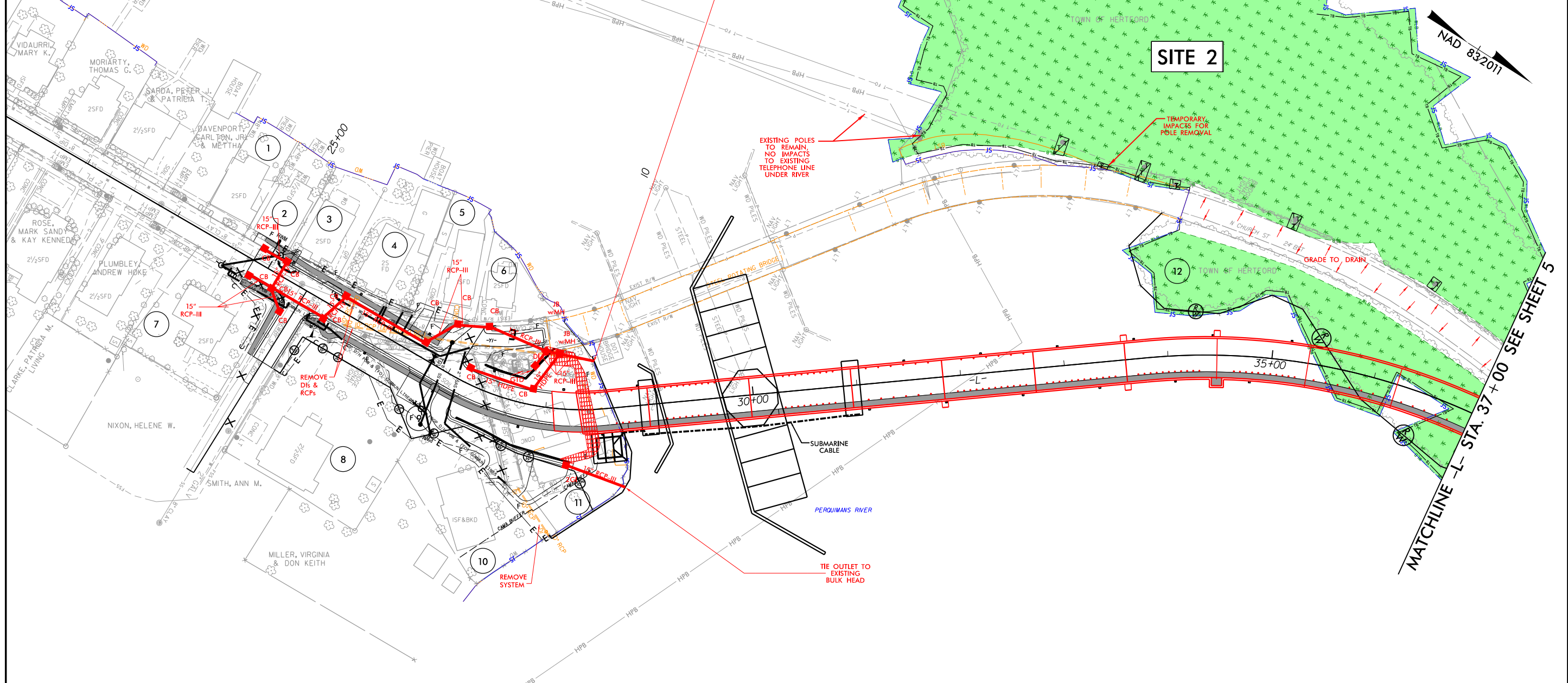
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SCALE

ENGLISH

PERQUIMANS RIVER

DENOTES TEMPORARY  
FILL IN WETLAND

PROJECT REFERENCE NO. <i>R-4467</i>		SHEET NO. <i>4</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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PARCEL NUMBERS AND PROPERTY OWNERS

- |   |  |    |  |
|---|--|----|--|
| 1 | HOLLOWELL, BRENDA<br>DB 312, PG 717              | 7  | SMITH, RICHARD W. & JEAN P.<br>DB 164 PG 545                   |
| 2 | KENNEDY, CHARLES R.<br>DB 120, PG 594            | 8  | MALOTT, BRETT DARRYL & MARY M.<br>DB 165 PG 746                |
| 3 | W.V.M., LLC<br>DB 204, PG 251                    | 9  | JAKLIC, FRANK A. & CONSTANCE L.<br>DB 204 PG 251               |
| 4 | JAKLIC, FRANK A. & CONSTANCE L.<br>DB 204 PG 251 | 10 | WINSLOW, SARA E. & ANNE W.<br>DB 120 PG 585                    |
| 5 | MADRE, EDWARD LEE & ANN F.<br>DB 166 PG 201      | 11 | WADDELL, RUSSELL LEE &<br>NANCY LYNNE THEODORE<br>DB 153 PG 50 |
| 6 | VAYDA, MARGARET M.<br>DB 97 PG 507               |    |  |

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REVISED: 2-06-2019

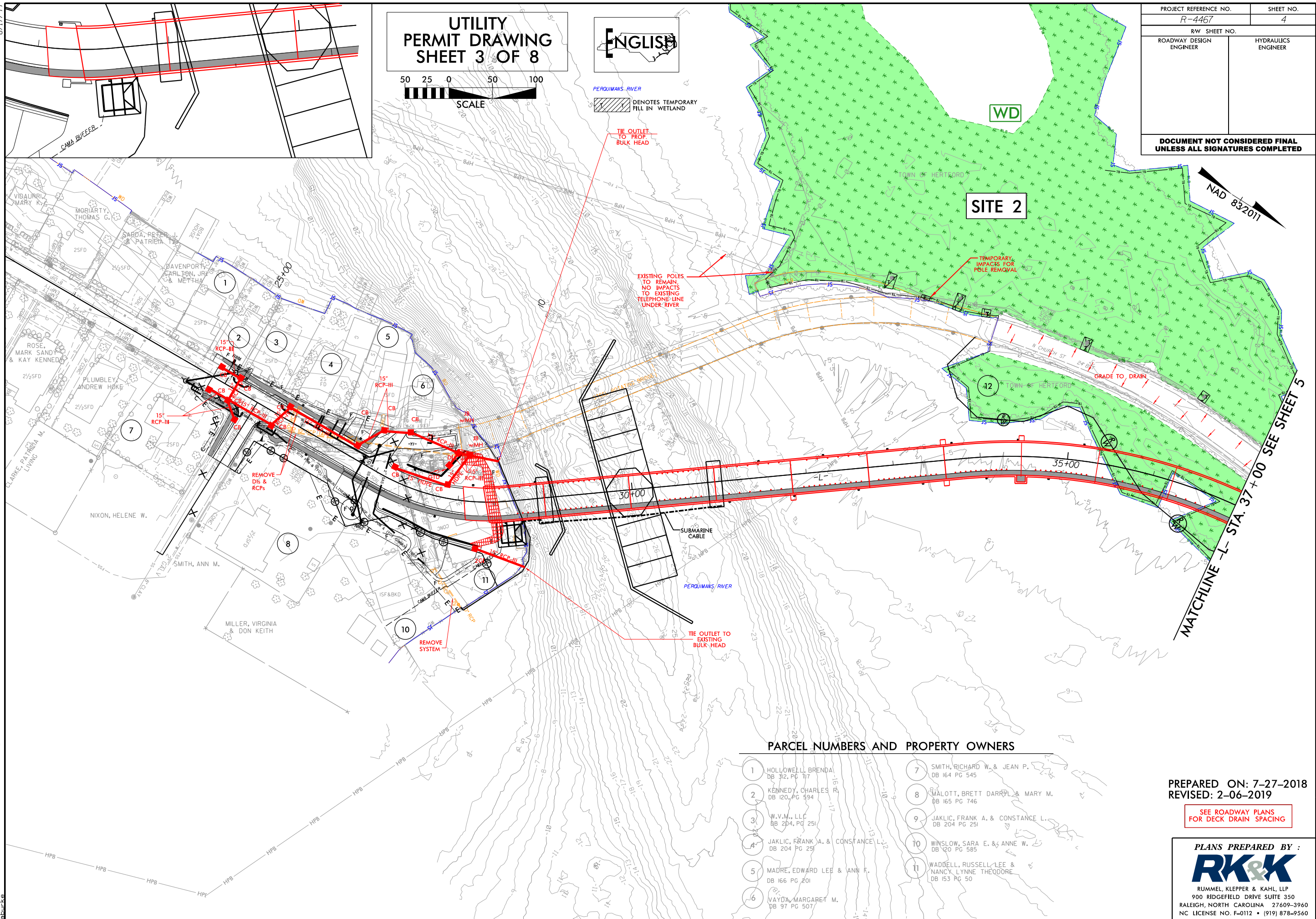
SEE ROADWAY PLANS  
FOR DECK DRAIN SPACING

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PROJECT REFERENCE NO.	SHEET NO.
R-4467	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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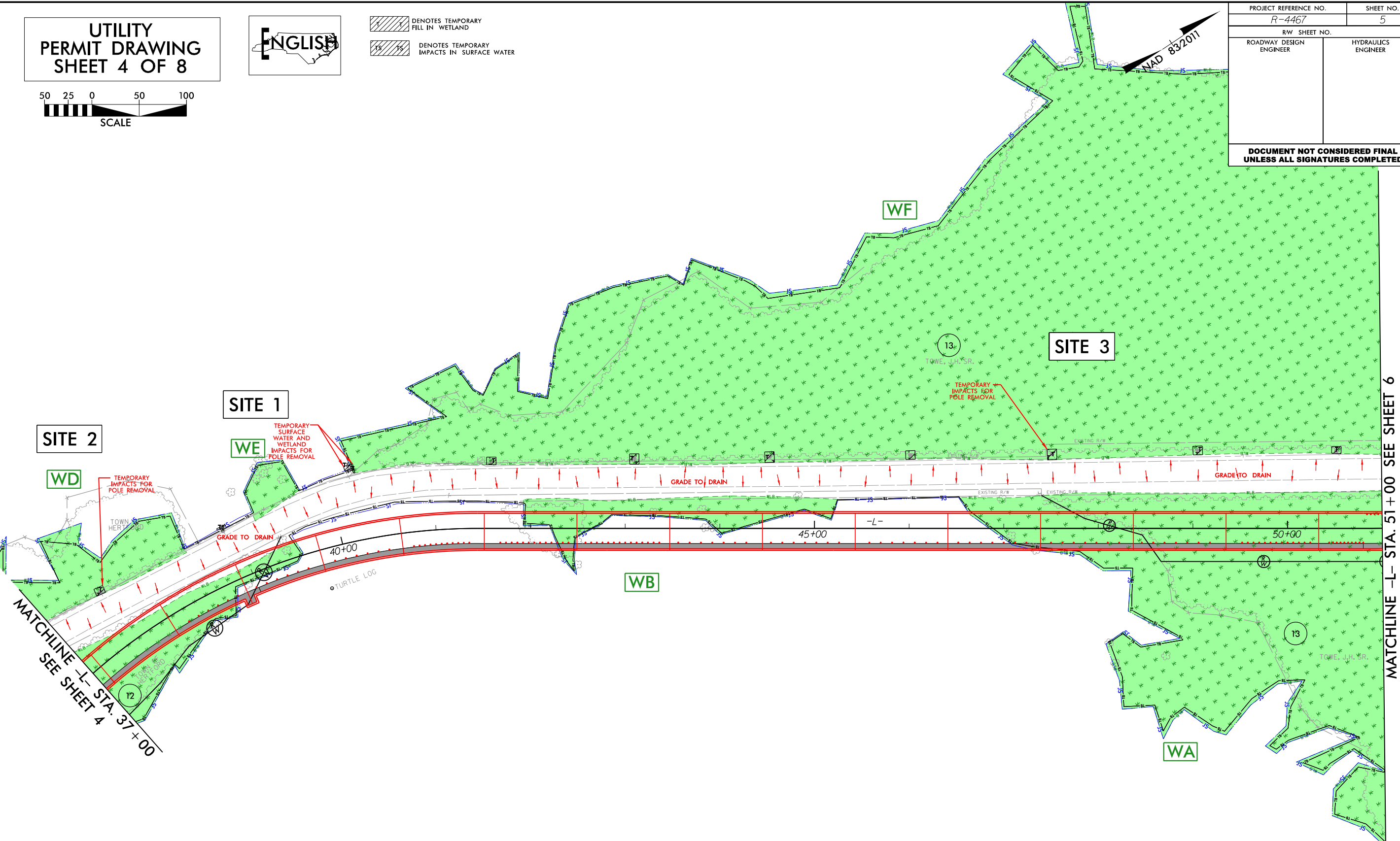
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UTILITY  
PERMIT DRAWING  
SHEET 4 OF 8



- 1 1 DENOTES TEMPORARY  
FILL IN WETLAND
- 1S 1S DENOTES TEMPORARY  
IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO.	SHEET NO.
R-4467	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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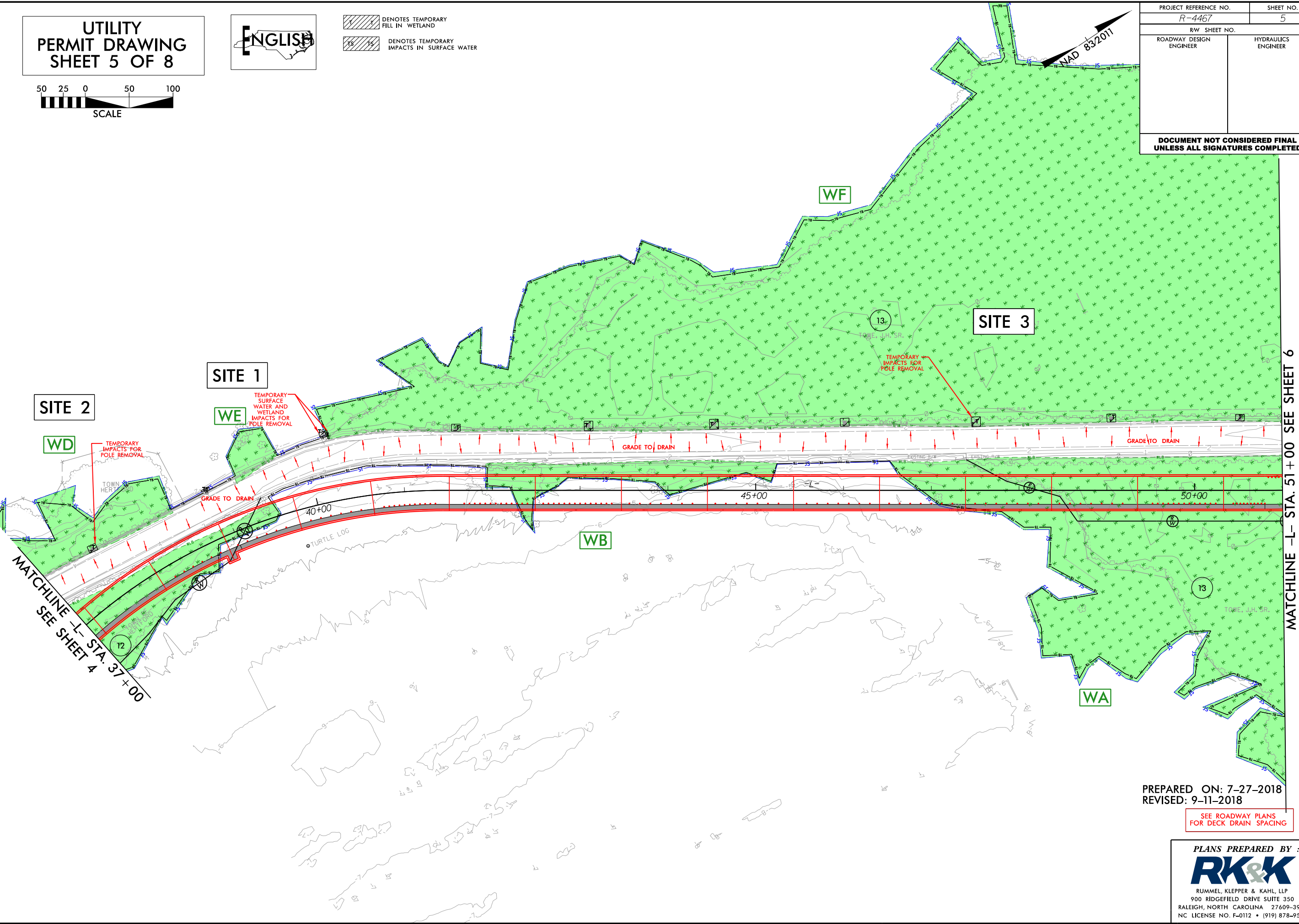
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UTILITY  
PERMIT DRAWING  
SHEET 5 OF 8



- 1 1 DENOTES TEMPORARY  
FILL IN WETLAND
- 1S 1S DENOTES TEMPORARY  
IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO.	SHEET NO.
R-4467	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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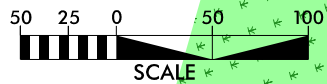
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FOR DECK DRAIN SPACING

PLANS PREPARED BY :

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# ENGLISH

## SITE 3

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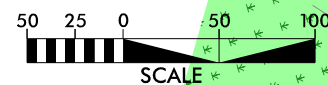
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**SEE INSET**

**PLANS PREPARED BY :**  
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# UTILITY PERMIT DRAWING SHEET 7 OF 8

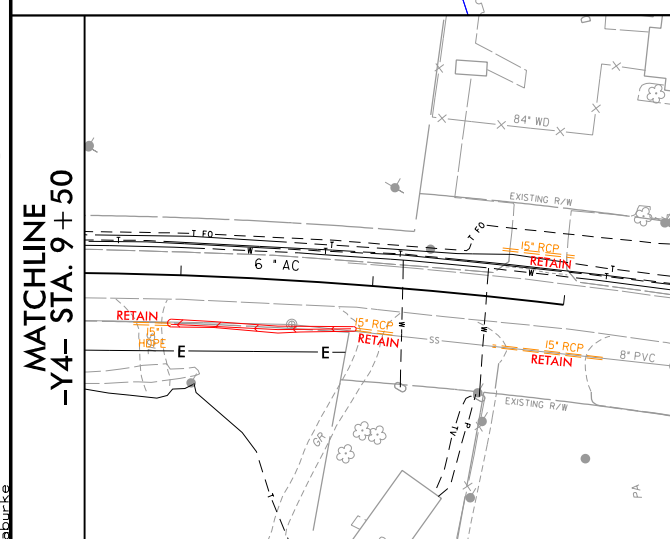


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15" TOWNE, JOSEPH H. JR.  
16" UNDERWOOD, BONNIE PAIGE  
17" WINSLOW OIL COMPANY, INC.  
18" CHARLIE, PASTOR  
19" HOLLOWELL, ROBERT JR.  
20" HURDLE, JERALD E. ET AL.  
21" JESSUP, SIDNEY P.  
22" LANE, ROBERT E & CHRISTINE O.

**SITE 3**

MATCHLINE -L- STA. 51+00 SEE SHEET 5

MATCHLINE -L- STA. 63+25 SEE SHEET 7



**POND A**

NAD 83/2011

PROJECT REFERENCE NO. R-4467		SHEET NO. 6	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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UNLESS ALL SIGNATURES COMPLETED  
PREPARED ON: 7-27-2018  
REVISED: 2-06-2019

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



# APPLICATION for Major Development Permit

(last revised 12/27/06)



North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information				
Business Name North Carolina Department Of Transportation		Project Name (if applicable) R-4467		
Applicant 1: First Name Philip	MI S	Last Name Harris		
Applicant 2: First Name	MI	Last Name		
<i>If additional applicants, please attach an additional page(s) with names listed.</i>				
Mailing Address Environmental Analysis Unit 1598 Mail Service Center		PO Box	City Raleigh	State NC
ZIP 27699-1598	Country USA	Phone No. 919 - 707 - 6111 ext.		FAX No. - -
Street Address (if different from above) 1020 Birch Ridge Drive		City Raleigh	State NC	ZIP 27610-
Email jldilday@ncdot.gov				

2. Agent/Contractor Information				
Business Name				
Agent/ Contractor 1: First Name	MI	Last Name		
Agent/ Contractor 2: First Name	MI	Last Name		
Mailing Address		PO Box	City	State
ZIP		Phone No. 1 - - ext.		Phone No. 2 - - ext.
FAX No.		Contractor #		
Street Address (if different from above)		City	State	ZIP -
Email				

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3. Project Location				
County (can be multiple) Perquimans		Street Address		State Rd. # NC 37/US 17 Bus
Subdivision Name N/A		City Hertford	State NC	Zip 27944 -
Phone No. - - ext.			Lot No.(s) (if many, attach additional page with list) See attached list, , , ,	
a. In which NC river basin is the project located? Pasquotank			b. Name of body of water nearest to proposed project Perquimans River	
c. Is the water body identified in (b) above, natural or manmade? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Manmade <input type="checkbox"/> Unknown			d. Name the closest major water body to the proposed project site. Perquimans River	
e. Is proposed work within city limits or planning jurisdiction? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			f. If applicable, list the planning jurisdiction or city limit the proposed work falls within. Hertford	

4. Site Description	
a. Total length of shoreline on the tract (ft.) 5,100	b. Size of entire tract (sq.ft.) 67.5 acres
c. Size of individual lot(s) See attached, , , (If many lot sizes, please attach additional page with a list)	d. Approximate elevation of tract above NHW (normal high water) or NWL (normal water level) -0.1' <input type="checkbox"/> NHW or <input checked="" type="checkbox"/> NWL
e. Vegetation on tract Maintained/Disturbed: poison ivy, Japanese honeysuckle, fescue, wild onion, Bermuda grass. River Swamp Forest: Bald cypress, blackgum, water tupelo, swamp tupelo, loblolly bay, red bay, red maple, wax myrtle, baccharis, multiflora rose, swamp rose, rush. Bottomland Hardwood Forest: water oak, willow oak, loblolly pine, black willow, tulip tree, sycamore, sweetgum, American holly, giant cane, and various vine species.	
f. Man-made features and uses now on tract Features are: US 17 Business/NC 12, swing-span bridge, electric and water utility lines, residential and commercial buildings. Uses are: transportation, residential, commercial, recreational, and historic.	
g. Identify and describe the existing land uses <u>adjacent</u> to the proposed project site. Residential, commercial, recreational, historic, transportation, open space, open water	
h. How does local government zone the tract? Hertford ETJ, Winfall Town Limits	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
j. Is the proposed activity part of an urban waterfront redevelopment proposal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA If yes, by whom? NCDOT	
l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	

&lt;Form continues on next page&gt;

m. (i) Are there wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(ii) Are there coastal wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? (Attach documentation, if available)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
n. Describe existing wastewater treatment facilities. Town of Hertford wastewater treatment	
o. Describe existing drinking water supply source. Town of Hertford water supply	
p. Describe existing storm water management or treatment systems. None	

<b>5. Activities and Impacts</b>	
a. Will the project be for commercial, public, or private use?	<input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Public/Government <input type="checkbox"/> Private/Community
b. Give a brief description of purpose, use, and daily operations of the project when complete. The purpose of the project is to provide a direct, reliable route between the Towns of Hertford and Winfall. The current bridge and causeway is experiencing substantial deterioration and ongoing maintenance problems, jeopardizing its ability to provide direct, reliable connectivity from Hertford to Winfall. A detailed description of the project need is provided in the Environmental Assessment (EA, 2013). The proposed bridge and roadway will serve automobile and pedestrian traffic carrying residents, tourists, workers, and goods on the roadway daily.	
c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored. In shallow waters, a crawler crane on a trestle will be used to construct the bridge. A temporary causeway will be built near the north side of the bridge. Once the new roadway is complete, the existing bridge and causeway will be removed. The existing tender house will be removed and a new one built on the new bridge. Typical bridge construction equipment will include cranes, pile hammers, vibratory hammers, jetting pumps, forklifts, generators, etc. Typical roadway construction will include but is not limited to the following equipment; bulldozers, dump trucks and motor graders. A power cable to the pivot and resting piers will be installed via hand jetting performed by divers outside of the February 15 - June 30 moratorium	
d. List all development activities you propose. Construction of a 29 span bridge, including a swing bridge, realignment of existing US 17 Business/NC 37 running parallel to the existing roadway, and removal of a portion of the existing US 17 Business/NC 37. Traffic will remain on the existing roadway during construction. Once construction is complete, the realigned portion will tie back to the roadway at both ends of the project. A new tender house will be constructed as part of this project and the existing tender house removed.	
e. Are the proposed activities maintenance of an existing project, new work, or both?	Both
f. What is the approximate total disturbed land area resulting from the proposed project?	11.85 <input type="checkbox"/> Sq.Ft or <input checked="" type="checkbox"/> Acres
g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
h. Describe location and type of existing and proposed discharges to waters of the state. Throughout the entire length of the bridge, proposed discharge will occur through deck drains of varied spacing (between 4' to 12')	
i. Will wastewater or stormwater be discharged into a wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, will this discharged water be of the same salinity as the receiving water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
j. Is there any mitigation proposed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
If yes, attach a mitigation proposal.	

&lt;Form continues on back&gt;

**6. Additional Information**

In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.

- a. A project narrative.
- b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.
- c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.
- d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.
- e. The appropriate application fee. Check or money order made payable to DENR.
- f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management.
- |                           |           |
|---------------------------|-----------|
| Name See attached letters | Phone No. |
| Address                   |           |
| Name                      | Phone No. |
| Address                   |           |
| Name                      | Phone No. |
| Address                   |           |
- g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.
- USACOE - NWP 6. SAW-2018-00615
- h. Signed consultant or agent authorization form, if applicable.
- i. Wetland delineation, if necessary.
- j. A signed AEC hazard notice for projects in oceanfront and inlet areas. (Must be signed by property owner)
- k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

**7. Certification and Permission to Enter on Land**

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 2/11/19 Print Name Philip S. Harris, III, PE  
Signature Carl T. Snino

Please indicate application attachments pertaining to your proposed project.

- ☒ DCM MP-2 Excavation and Fill Information ☒ DCM MP-5 Bridges and Culverts
- ☐ DCM MP-3 Upland Development
- ☐ DCM MP-4 Structures Information

# EXCAVATION and FILL

**(Except for bridges and culverts)**

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

Describe below the purpose of proposed excavation and/or fill activities. **All values should be given in feet.**

	Access Channel (NLW or NWL)	Canal	Boat Basin	Boat Ramp	Rock Groin	Rock Breakwater	Other (excluding shoreline stabilization)
Length							
Width							
Avg. Existing Depth					NA	NA	
Final Project Depth					NA	NA	

**1. EXCAVATION**☒ This section not applicable

- a. Amount of material to be excavated from below NHW or NWL in cubic yards.
- b. Type of material to be excavated.

- c. (i) Does the area to be excavated include coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐ CW ☐ SAV ☐ SB ☐ WL ☐ None

- (ii) Describe the purpose of the excavation in these areas:

- d. High-ground excavation in cubic yards.

**2. DISPOSAL OF EXCAVATED MATERIAL**☒ This section not applicable

- a. Location of disposal area.
- b. Dimensions of disposal area.

- c. (i) Do you claim title to disposal area?

☐ Yes ☐ No ☐ NA

- (ii) If no, attach a letter granting permission from the owner.

- d. (i) Will a disposal area be available for future maintenance?

☐ Yes ☐ No ☐ NA

- (ii) If yes, where?

- e. (i) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐ CW ☐ SAV ☐ SB ☐ WL ☐ None

- (ii) Describe the purpose of disposal in these areas:

- f. (i) Does the disposal include any area in the water?

☐ Yes ☐ No ☐ NA

- (ii) If yes, how much water area is affected?

**3. SHORELINE STABILIZATION***(If development is a wood groin, use MP-4 – Structures)*☐ This section not applicable

- a. Type of shoreline stabilization:  
☒ Bulkhead   ☐ Riprap   ☐ Breakwater/Sill   ☐ Other: \_\_\_\_\_
- b. Length: 228'  
Width: 1'
- c. Average distance waterward of NHW or NWL: 2' waterward of existing bulkhead
- d. Maximum distance waterward of NHW or NWL: 2' waterward of existing bulkhead
- e. Type of stabilization material:  
Metal sheet piles with concrete cap
- f. (i) Has there been shoreline erosion during preceding 12 months?  
☐ Yes   ☒ No   ☐ NA  
(ii) If yes, state amount of erosion and source of erosion amount information.
- g. Number of square feet of fill to be placed below water level.  
Bulkhead backfill 456   Riprap \_\_\_\_\_  
Breakwater/Sill \_\_\_\_\_   Other \_\_\_\_\_
- h. Type of fill material.  
Earth fill
- i. Source of fill material.  
NCDOT approved borrow source

**4. OTHER FILL ACTIVITIES***(Excluding Shoreline Stabilization)*☒ This section not applicable

- a. (i) Will fill material be brought to the site? ☐ Yes   ☐ No   ☐ NA  
If yes,  
(ii) Amount of material to be placed in the water \_\_\_\_\_  
(iii) Dimensions of fill area \_\_\_\_\_  
(iv) Purpose of fill \_\_\_\_\_
- b. (i) Will fill material be placed in coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.  
☐ CW \_\_\_\_\_   ☐ SAV \_\_\_\_\_   ☐ SB \_\_\_\_\_  
☐ WL \_\_\_\_\_   ☐ None \_\_\_\_\_  
(ii) Describe the purpose of the fill in these areas:

**5. GENERAL**

- a. How will excavated or fill material be kept on site and erosion controlled?  
Will follow NCDOT BMPs for Construction and Maintenance Activities
- b. What type of construction equipment will be used (e.g., dragline, backhoe, or hydraulic dredge)?  
cranes, barges, crane trestles, pile hammers, dozers, trucks
- c. (i) Will navigational aids be required as a result of the project?  
☒ Yes   ☐ No   ☐ NA  
(ii) If yes, explain what type and how they will be implemented.  
Navigational aids will supplement the existing navigational aids as directed by the US Coast Guard.
- d. (i) Will wetlands be crossed in transporting equipment to project site? ☒ Yes   ☐ No   ☐ NA  
(ii) If yes, explain steps that will be taken to avoid or minimize environmental impacts.  
There will be a temporary access causeway within wetlands. The roads will consist of geotextile fabric laid over the wetlands, topped with stone to create the causeway.

Date

2/11/19

Project Name

R-4467

Applicant Name

for Philip S. Harris, III, PE

Applicant Signature

Carm T. Smith

**BRIDGES and CULVERTS**

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

**1. BRIDGES**☐ This section not applicable

- a. Is the proposed bridge:  
☐ Commercial ☒ Public/Government ☐ Private/Community
- b. Water body to be crossed by bridge:  
 Perquimans River
- c. Type of bridge (construction material):  
 Fixed bridge consists of reinforced concrete deck on prestressed concrete girders. Substructure consists of reinforced concrete caps on prestressed concrete piles. Swing span consists of structural steel truss with reinforced concrete deck and substructure consisting of reinforced concrete caps on prestressed concrete piles.
- d. Water depth at the proposed crossing at NLW or NWL:  
 0'-31.5' from NWL
- e. (i) Will proposed bridge replace an existing bridge? ☒ Yes ☐ No  
 If yes,  
 (ii) Length of existing bridge: 640'  
 (iii) Width of existing bridge: 23' 2"  
 (iv) Navigation clearance underneath existing bridge:  
unlimited when swing span is open, 7 ft when swing span is closed.  
 (v) Will all, or a part of, the existing bridge be removed?  
 (Explain) Yes, the existing bridge will be removed and replaced with a new bridge on new alignment, immediately downstream of the existing bridge.
- f. (i) Will proposed bridge replace an existing culvert? ☐ Yes ☒ No  
 If yes,  
 (ii) Length of existing culvert: \_\_\_\_\_  
 (iii) Width of existing culvert: \_\_\_\_\_  
 (iv) Height of the top of the existing culvert above the NHW or NWL: \_\_\_\_\_  
 (v) Will all, or a part of, the existing culvert be removed?  
 (Explain)
- g. Length of proposed bridge: 2,691'
- h. Width of proposed bridge: 41'
- i. Will the proposed bridge affect existing water flow? ☐ Yes ☒ No  
 If yes, explain:
- j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? ☐ Yes ☒ No  
 If yes, explain:
- k. Navigation clearance underneath proposed bridge: Unlimited navigation clearance when swing span is open. When swing span closed 12' navigation clearance.
- l. Have you contacted the U.S. Coast Guard concerning their approval? ☒ Yes ☐ No  
 If yes, explain: A USCG permit is being prepared and will be submitted to the USCG. USCG has provided preliminary approval of the single 55' navigation channel.
- m. Will the proposed bridge cross wetlands containing no navigable waters? ☒ Yes ☐ No  
 If yes, explain: There are wetlands under the east end of the bridge. They are not navigable, but are adjacent to navigable waters.
- n. Height of proposed bridge above wetlands: 4.0' to 12.4'

**2. CULVERTS**☒ This section not applicable

a. Number of culverts proposed: \_\_\_\_\_

b. Water body in which the culvert is to be placed:  
\_\_\_\_\_

&lt; Form continues on back &gt;

c. Type of culvert (construction material):  
\_\_\_\_\_

d. (i) Will proposed culvert replace an existing bridge?

☐ Yes ☐ No

If yes,

(ii) Length of existing bridge: \_\_\_\_\_

(iii) Width of existing bridge: \_\_\_\_\_

(iv) Navigation clearance underneath existing bridge: \_\_\_\_\_

(v) Will all, or a part of, the existing bridge be removed?  
(Explain)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

e. (i) Will proposed culvert replace an existing culvert?

☐ Yes ☐ No

If yes,

(ii) Length of existing culvert(s): \_\_\_\_\_

(iii) Width of existing culvert(s): \_\_\_\_\_

(iv) Height of the top of the existing culvert above the NHW or  
NWL: \_\_\_\_\_(v) Will all, or a part of, the existing culvert be removed?  
(Explain)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

f. Length of proposed culvert: \_\_\_\_\_

g. Width of proposed culvert: \_\_\_\_\_

h. Height of the top of the proposed culvert above the NHW or NWL.  
\_\_\_\_\_i. Depth of culvert to be buried below existing bottom contour.  
\_\_\_\_\_j. Will the proposed culvert affect navigation by reducing or  
increasing the existing navigable opening? ☐ Yes ☐ NoIf yes, explain:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

k. Will the proposed culvert affect existing water flow?

☐ Yes ☐ NoIf yes, explain:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_**3. EXCAVATION and FILL**☐ This section not applicablea. (i) Will the placement of the proposed bridge or culvert require any  
excavation below the NHW or NWL? ☒ Yes ☐ No

If yes,

(ii) Avg. length of area to be excavated: 240'(iii) Avg. width of area to be excavated: 70'(iv) Avg. depth of area to be excavated: 20'(v) Amount of material to be excavated in cubic yards: 2,500  
CY above water level and 10,000 CY below water  
(12,500 CY total)Note: The excavation below water level does not occur in  
the channel or wetlandsb. (i) Will the placement of the proposed bridge or culvert require any  
excavation within coastal wetlands/marsh (CW), submerged  
aquatic vegetation (SAV), shell bottom (SB), or other wetlands  
(WL)? If any boxes are checked, provide the number of square  
feet affected.☐ CW \_\_\_\_\_ ☐ SAV \_\_\_\_\_ ☐ SB \_\_\_\_\_☐ WL \_\_\_\_\_ ☒ None(ii) Describe the purpose of the excavation in these areas:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Form DCM MP-5 (Bridges and Culverts, Page 3 of 4)**

- c. (i) Will the placement of the proposed bridge or culvert require any high-ground excavation? ☒ Yes ☐ No  
If yes,  
(ii) Avg. length of area to be excavated: 800'  
(iii) Avg. width of area to be excavated: 62'  
(iv) Avg. depth of area to be excavated: 3'  
(v) Amount of material to be excavated in cubic yards: 5,500
- d. If the placement of the bridge or culvert involves any excavation, please complete the following:  
(i) Location of the spoil disposal area: Spoil will either be incorporated into new roadway embankment or disposed of at an approved NCDOT facility \_\_\_\_\_  
(ii) Dimensions of the spoil disposal area: undetermined  
(iii) Do you claim title to the disposal area? ☐ Yes ☒ No (If no, attach a letter granting permission from the owner.)  
(iv) Will the disposal area be available for future maintenance? ☒ Yes ☐ No  
(v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?  
☐ CW ☐ SAV ☐ WL ☐ SB ☒ None  
If any boxes are checked, give dimensions if different from (ii) above. \_\_\_\_\_  
(vi) Does the disposal area include any area below the NHW or NWL? ? ☐ Yes ☒ No  
If yes, give dimensions if different from (ii) above. \_\_\_\_\_
- e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed below NHW or NWL? ☒ Yes ☐ No  
If yes,  
(ii) Avg. length of area to be filled: 30"  
(iii) Avg. width of area to be filled: 30"  
(iv) Purpose of fill: bridge bents  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.  
☒ CW 16 ☐ SAV \_\_\_\_\_ ☐ SB \_\_\_\_\_  
☒ WL 2,600 ☐ None  
(ii) Describe the purpose of the excavation in these areas:  
Placement of bridge piles, fill slope, and outlet pipes  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed on high-ground? ☒ Yes ☐ No  
If yes,  
(ii) Avg. length of area to be filled: 800'  
(iii) Avg. width of area to be filled: 40.5'  
(iv) Purpose of fill: roadway construction  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**4. GENERAL**

- a. Will the proposed project require the relocation of any existing utility lines? ☒ Yes ☐ No  
If yes, explain: Power cable to the pivot and resting piers will be installed via hand jetting performed by divers outside of the February 15 - June 30 moratorium  
\_\_\_\_\_
- b. Will the proposed project require the construction of any temporary detour structures? ☐ Yes ☒ No  
If yes, explain:  
\_\_\_\_\_  
\_\_\_\_\_

*If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.*

**< Form continues on back >**

c. Will the proposed project require any work channels?

☐ Yes ☒ No

*If yes, complete Form DCM-MP-2.*

d. How will excavated or fill material be kept on site and erosion controlled?

Will follow NCDOT BMPs for Construction and Maintenance Activities

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e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?

cranes, barges, crane trestles, pile hammers, dozers, trucks

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f. Will wetlands be crossed in transporting equipment to project site?

☒ Yes ☐ No

If yes, explain steps that will be taken to avoid or minimize environmental impacts.

There will be a temporary access causeway within wetlands. The roads will consist of geotextile fabric laid over the wetlands, topped with stone to create the causeway.

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g. Will the placement of the proposed bridge or culvert require any shoreline stabilization?

☒ Yes ☐ No

*If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.*

2/11/19

Date

R-4467

Project Name

for Philip S. Harris, III, PE

Applicant Name

Cara T. Harris

Applicant Signature