



PAT McCrory
Governor

NICHOLAS J. TENNYSON
Secretary

May 25, 2016

MEMORANDUM TO: Mr. Mike Mills, PE
Division 7 Engineer

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

SUBJECT: NC 68/US 220 Connector from NC 68 at SR 2133 to the existing
intersection of NC 68 and US 220 in Guilford and Rockingham
Counties; WBS No. 34429.1.1; **TIP R-2413A**

Attached are the modification to the U.S. Army Corps of Engineers Section 404 Individual Permit
and the N.C. Division of Water Resources (NCDWR) Section 401 Water Quality Certification.

A copy of this permit package will be posted on the NCDOT website at:
<https://connect.ncdot.gov/resources/Environmental>, under *Quick Links > Issued Permits*

cc: w/o attachment (see website for attachments)

Mr. Randy Garris, P.E. State Contract Officer
Mr. Jerry Parker, Division Environmental Officer
Dr. Majed Al-Ghandour, P. E., Program Dev. and TIP
Ms. Karen Capps, P.E., Design-Build
Mr. Roger Thomas, P.E., Roadway Design
Mr. Matt Lauffer, P.E., Hydraulics
Mr. Tom Koch, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. Robert Memory, Utilities Unit
Mr. Ron Hancock, P.E., State Roadway Construction Engineer
Mr. Kevin Bowen, P.E., State Bridge Construction Engineer
Mr. Rob Hanson, P.E., PDEA
Ms. LeiLani Paugh, ICI/Onsite Mitigation
Mr. Philip Ayscue, Office of Inspector General
Ms. Beth Harmon, NCDMS



PROJECT COMMITMENTS

NC 68- US 220 Connector
From NC 68 at SR 2133 to existing intersection of NC 68 and US 220
Guilford and Rockingham Counties
WBS Element 34429.1.1
TIP Project R-2413

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Current status, changes, or additions to the project commitments as shown in the environmental document for the project are printed in italics. All commitments, which are not pertinent to R-2413-A & B have been grayed out.

Hydraulics Unit/ Roadside Environmental Unit:

- Best Management Practices will be employed.

Action: Standard Commitment.

Roadway Design Unit/ PDEA Unit/ Division 7:

- NCDOT will coordinate with resource agencies (USCOE, USFWS, NCWRC and DEM) during the permitting phase of the project to develop a mutually agreeable mitigation plan.

Mitigation opportunities will be explored that will provide for wetland restoration, enhancement, and/or creation within the same drainage as the wetland loss.

*Action: There is ongoing coordination with the resource agencies.
Mitigation plans to be included with the permit application.*

The use of previously converted farmland will be explored for wetland restoration sites.

Action: No suitable sites found.

The donation of orphaned plots (uneconomic remnants) of farmland and forest to the county greenway and/or parks and recreation programs will be considered

Action: This will be addressed after project construction by Division 7.

Roadway Design/Hydraulics/ Structures/ PDEA/ Roadside Environmental:

- There will be continuing efforts for cooperation between NCDOT and the resource agencies with respect to the crossings of Reedy Fork Creek and the Haw River.

NCDOT will construct a hazardous spill catch basin (HSCB) at the Reedy Fork Creek Crossing, which lies within the Greensboro watershed. Additional HSCBs will be considered for other locations within the Greensboro Watershed during the development of preliminary and final design plans.

NCDOT will provide a self-contained bridge drainage system for the crossing of Reedy Fork Creek. The bridge drainage will be tied in with the hazardous spill catch basin.

Action: This commitment will not be implemented. NCDOT policy does not require the construction of HSCB basin at this site. A Basin is not required if it is over 1/2 mile from the critical area of a stream classified WS-III (Reedy Fork). This project is at 1.9 miles from the critical area. BMP's on the design plans are avoiding direct discharge into the surface water and discharging as far away from the surface water as practicable. Also grassed swales and preformed scour holes are being used where practicable. No hazardous catch basin is being constructed.

NCDOT will provide bridged crossings of Reedy Fork Creek and the Haw River that allow wildlife, pedestrian, and equestrian access along both sides of the waterway. The Reedy Fork Creek crossing will provide 10 feet of natural surface on one bank, and 10 feet of natural surface as well as 10 feet of stabilized trail on the other bank for passage beneath the bridge. *The Haw River crossing will provide 10 feet of natural surface on each side of the channel for passage beneath the bridge.*

Action: The bridge length will accommodate wildlife, pedestrian and equestrian access per the commitment. The trail will be stabilized with vegetation.

PDEA Unit:

- NCDOT will coordinate with the USACE and the NC Department of Cultural Resources (NCD CR) regarding the possible need for archaeological survey in the vicinity of 404 permit areas to assess the nature, extent, condition and significance of archaeological resources that might be damaged or destroyed by the proposed action.

Action: Coordination between USACE and NCDOT was completed in 2007; Concurrence in November 2007 from SHPO concluded no property is eligible for the National Register.

Contract and Proposal Unit/ Division 7:

- NCDOT will attempt to salvage merchantable timber during the clearing of right-of-way for the project. NCDOT's general contract for right-of-way clearing provides opportunity for contractors to market saleable trees.

Action: This commitment is standard and general in NCDOT contracts.

Roadway Design Unit/ Hydraulics Unit/ Structures Unit:

- The project will include pedestrian culverts at Brookbank Road and at the abandoned railroad. At Deboe Road, a 7.5-foot offset will be included on one side of the bridge for the accommodation of future sidewalks.

Action: (14'X10') pedestrian culverts are included at the Brookbank Road and the abandoned railroad. Also, a 7.5 foot off-set is included for future sidewalks at Deboe Road, Alcorn Road and Bunch Road.

- NCDOT committed to altering their design plans for the southbound off-ramp at NC 150 to avoid direct impacts to the private recreation center for the Henson Forest subdivision.

Action: The current design avoids any impacts to the recreation center.

- NCDOT agreed to include equalizer pipes in the design for water flow between the wetland areas, and include sills in the culverts to prevent head cuts at a crossing of an unnamed tributary to Reedy Fork Creek.

Action: The current design includes 10'X10' equalizer culvert, sills are included in pipes where required and necessary.

- NCDOT will construct a single 7-foot by 8-foot culvert at a crossing of unnamed tributary to Haw River.

Action: The current design includes 10'X8' culvert with sills.

PDEA Unit:

- *Based on preliminary noise studies, NCDOT will evaluate noise abatement measures at the following locations during final design:*

*-Golden Acres Subdivision south of Alcorn Road
-Trailer court at US 220 and NC 65
-Trailer court across US 220 from Spotswood Road
-Homes west of US 220 at Ogborn Mill Road (SR 1100)
-Homes east of US 220 at Ogborn Mill Road (SR 1100)*

NOTE: Noise Barriers: For the updated traffic noise analysis prepared in April 2009, only one barrier was found to be reasonable and feasible. This barrier is located along Section C near Spotswood Road, north of the Connector/US 220 interchange from Station 34+80 to Station 39+60. This barrier is 19 feet high and 1,576 feet long and is located on the west side of US 220.

COMMITMENTS DEVELOPED FROM PERMITTING

Natural Environment Engineering Group and Onsite Mitigation Group:

404 condition 20

Mitigation:

A. In Lieu Fee: In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit authorization.

B. Permittee Responsible Mitigation:

1. The Permittee shall fully implement the compensatory mitigation plan, entitled, R-2413 A & B, Plan for Onsite Mitigation, dated (revised) July 1, 2013 for the unavoidable impacts to 3,155 linear feet of streams. Activities prescribed by this plan shall be initiated prior to, or concurrently with, commencement of any construction activities within jurisdictional areas authorized by this permit. The permittee shall (re-establish, rehabilitate, enhance, establish) 3,155 linear feet of streams in accordance with the plan with the following conditions:

a) The permittee, NCDOT, is the party responsible for the implementation, performance and long term management of the compensatory mitigation project.

b) Any changes or modifications to your mitigation plan shall be approved by the Corps.

c) The permittee shall maintain the entire mitigation site in its natural condition, as altered by the work in the mitigation plan, in perpetuity. Prohibited activities within the mitigation site specifically include, but are not limited to: filling; grading; excavating; earth movement of any kind; construction of roads, walkways, buildings, signs, or any other structure; any activity that may alter the drainage patterns on the property; the destruction, cutting, removal, mowing, or other alteration of vegetation on the property; disposal or storage of any garbage, trash, debris or other waste material; graze or water animals, or use for any agricultural or horticultural purpose; or any other activity which would result in the property being adversely impacted or destroyed, except as specifically authorized by this permit.

d) All mitigation areas shall be monitored for a minimum of 5 years or until deemed successful by the Corps in accordance with the monitoring requirements included in the mitigation plan.

2. Remedial Mitigation Plan: If the compensatory mitigation fails to meet the performance standards 5 years after completion of the compensatory mitigation objectives, the compensatory mitigation will be deemed unsuccessful. Within 60 days of notification by the Corps that the compensatory mitigation is unsuccessful, the Permittee shall submit to the Corps an alternate compensatory mitigation proposal to fully offset the functional loss that occurred as a result of the project. The alternate compensatory mitigation proposal may be required to include additional mitigation to compensate for the temporal loss of wetland function associated with the unsuccessful compensatory mitigation activities. The Corps reserves the right to fully evaluate, amend, and approve or reject the alternate compensatory mitigation proposal. Within 120 days of Corps approval, the Permittee will complete the alternate compensatory mitigation proposal.

3. Mitigation Release: The Permittee's responsibility to complete the required compensatory mitigation, as set forth in the Compensatory Mitigation Special Condition of this permit will not be considered fulfilled until mitigation success has been demonstrated and written verification has been provided by the Corps. A mitigation area which has been released will no longer require monitoring or reporting by the Permittee; however the Permittee, Successors and subsequent Transferees remain perpetually responsible to ensure that the mitigation area(s) remain in a condition appropriate to offset the authorized impacts in accordance with the approved mitigation and monitoring plan and the general and special conditions of this permit.

401 condition 4

Compensatory mitigation for impacts to 8,171 linear feet of streams for the R-2413A project and 3,594 for the R-2413B project at a replacement ratio of 1:1 is required. Compensatory mitigation for impacts to jurisdictional streams shall be provided by onsite stream relocations of 2,180 linear feet of stream for the R-2413A project and 765 linear feet for the R-2413B project. The onsite stream relocation shall be constructed in accordance with the design submitted in your application dated received July 19, 2013 and August 23, 2013. All onsite mitigation sites shall be protected in perpetuity by a conservation easement or through NCDOT fee simple acquisition and recorded in the NCDOT Natural Environment Section mitigation geodatabase. Please be reminded that as-builts for the completed streams shall be submitted to the North Carolina Division of Water Resources 401 Wetland Unit with the as-builts for the rest of the project. If the parameters of this condition are not met, then the permittee shall supply additional stream mitigation for the 2,180 linear feet of impacts. All channel relocations will be constructed in a dry work area, will be completed and stabilized, and must be approved on site by NCDWR staff, prior to diverting water into the new channel. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. All stream relocations shall have a 50-foot wide native wooded buffer planted on both sides of the stream unless otherwise authorized by this Certification. A transitional phase

incorporating rolled erosion control product (RECP) and appropriate temporary ground cover is allowable.

401 condition 5

The stream mitigation site shall be monitored annually for five years or until success criteria are satisfied. Monitoring protocols shall follow the Monitoring Level I outlined in the Stream Mitigation Guidelines, April 2003.

Division 7/ Roadside Environmental Unit:

401 condition 16

For the 1,149 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriated native species.

Permit Modification:

No new special conditions were added.



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

May 17, 2016

Regulatory Division/1200A

Action ID No. SAW-2013-00557

Mr. Philip S. Harris III, P.E., C.P.M.
Natural Environment Section Head
North Carolina Department of Transportation
Division of Highways
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Reference the Department of the Army (DA) permit issued on January 28, 2014, to Mr. Richard Hancock, of the North Carolina Department of Transportation for impacts associated with the new location project identified as R-2413 A&B. The project, future I-73, is a 7.8 mile, four-lane divided facility on new location extending from SR 2011 (Edgefield Road) to the Haw River at US 220 in Summerfield, Guilford County, North Carolina. Section A starts at SR 2011 (Edgefield Road) and extends to SR 2127 (Brookbank Road) and Section B starts at SR 2127 and extends to the Haw River at US 220. Coordinates (in decimal degrees) for the site are 36.1775° N, -79.9350° W. The project area contains a portion of Reedy Fork, four (4) unnamed tributaries to Brush Creek, thirty-one (31) unnamed tributaries to Reedy Fork, seven (7) unnamed tributaries to the Haw River, and fourteen (14) adjacent wetland areas in the Cape Fear River Basin (8-Digit Cataloging Unit 03030002).

Impacts authorized by the permit as well as subsequent permit modifications dated October 14, 2014 and May 26, 2015 include: 1) the permanent placement of fill material into 12,766 linear feet of jurisdictional stream channel, 5.47 acres of adjacent riparian wetlands, and 0.6 acres of jurisdictional open waters and, 2) the temporary placement of fill material into 1,170 linear feet of jurisdictional stream channel and 0.18 acre of adjacent riparian wetlands. Mitigation was implemented for the unavoidable impacts by on-site mitigation as described in the July 18, 2013, mitigation plan, including the revisions provided on January 15, 2014, as well as payment into the North Carolina Ecosystem Enhancement Program.

Also reference your letter to the Corps dated April 26, 2015 (received April 28, 2015), requesting modification of the permit for additional impacts to R-2413A, the permanent discharge of fill material into 46 linear feet of stream channel and the temporary discharge of fill material into 10 linear feet of stream channel, associated with:

- 1) Extending culvert pipes into 15 linear feet of stream channel at Permit Site 24, in order to stabilize a fill slope originally permitted to be minimized using a gravity wall. Other minimization options were determined not to be practicable as they would impact either existing traffic or the culvert pipes under NC 68,
- 2) Permanent rip rap bank stabilization in 31 linear feet of stream channel and temporary impacts to 10 linear feet of stream channel for construction access would also be required.

The Corps has completed the evaluation of your request and determined that it is appropriate and reasonable, and no public notice is required for this modification. Therefore, the permit is modified as listed and shown in the modified drawings in the April 26, 2016 modification request, for a net increase of permanent impacts to streams of 46 linear feet (permanent loss of 15 linear feet) and a net increase of temporary impacts to streams of 10 linear feet. Project R-2413 A&B now totals permanent impacts to 12,812 linear feet of jurisdictional stream channel, 5.47 acre of wetlands, and 0.6 acre of jurisdictional open waters, and temporary impacts to 1,180 linear feet of jurisdictional stream channel and 0.18 acre of adjacent riparian wetlands. In addition, the following special conditions regarding compensatory mitigation has been incorporated:

x) In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit authorization.

All other conditions of the permit, including the permit expiration date of December 31, 2019, remain in effect as written. Should you have questions, contact Mr. David E. Bailey, Raleigh Regulatory Field Office at David.E.Bailey2@usace.army.mil or telephone (919) 554-4884, Extension 30.

Sincerely,



 Kevin P. Landers Sr.
Colonel, U.S. Army
District Commander

Attachments

Copies Furnished with Attachment:

Mr. Brian Wrenn
Transportation Permitting Unit
Division of Water Resources
North Carolina Department of
Environment and Natural Resources
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Mr. Jerry Parker
Division Environmental Supervisor, Division 7
North Carolina Department of Transportation
Post Office Box 14996
Greensboro, North Carolina 27415

Ms. Deanna Riffey
North Carolina Department of Transportation
Division of Highways
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Copies Furnished without Attachment:

Mr. Rodger Rochelle, P.E.
Technical Services Administrator
North Carolina Department of Transportation
1516 Mail Service Center
Raleigh, North Carolina 27699-1516

Mr. Pete Benjamin
U.S. Fish and Wildlife Services
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 28516-33726

Ms. Cynthia Van Der Wiele
U.S. Environmental Protection Agency
Region 4 NEPA Program Office
C/o USEPA-RTP
109 T.W. Alexander Drive
Mail Code: E143-08
Research Triangle Park, North Carolina 27709

Mr. Travis Wilson
North Carolina Wildlife Resources Commission
1718 Hwy 56 West
Creedmoor, North Carolina 27522

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation
 Project Name: NCDOT/R-2413AB/Division 7

Action ID: SAW-2013-00557
 County: Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that to the U.S. Army Corps of Engineers (USACE) Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate mitigation Sponsors.

Instructions to Sponsor: The Sponsor must verify that the mitigation requirements (credits) shown below are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether or not they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated bank ledger to the Permittee, the USACE Project Manager, and the Wilmington District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements:

Permitted Impacts Requiring Mitigation* **8-digit HUC and Basin: 03030002, Cape Fear River Basin**

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
9,453				5.47		

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements: **8-digit HUC and Basin: 03030002, Cape Fear River Basin**

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
18,058				10.94		

Mitigation Site Debited: _____ NCDMS
 (List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the USACE, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

 Signature of Sponsor's Authorized Representative

 Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the USACE is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the USACE is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. For authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by the Sponsor must be provided to the USACE within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the USACE has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the USACE Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the USACE, the Sponsor must obtain case-by-case approval from the USACE Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the USACE administrative records for both the permit and the Bank/ILF Instrument.

Comments/Additional Conditions:

- **This Form supersedes the Compensatory Mitigation Responsibility Transfer Form dated October 14, 2014 that was included as part of the DA Permit Modification Letter dated October 14, 2014.**
- **This modification results in a net INCREASE in the number of stream credits required relative to the DA Permit Modification Letter dated October 14, 2014. The wetland credits required have not changed as a result of this modification.**

This form is not valid unless signed below by the USACE Project Manager and by the Mitigation Sponsor on Page 1. *Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the USACE Project Manager at the address below, and 3) the Wilmington District Mitigation Office, Attn: Todd Tugwell, 11405 Falls of Neuse Road, Wake Forest, NC 27587 (email: todd.tugwell@usace.army.mil).* Questions regarding this form or any of the permit conditions may be directed to the USACE Project Manager below.

USACE Project Manager: David Bailey
USACE Field Office: Raleigh Regulatory Field Office
US Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587
Email: David.E.Bailey2@usace.army.mil



USACE Project Manager Signature

May 17, 2016

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.



PAT MCCRORY

Governor

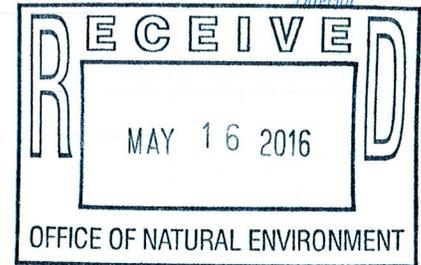
DONALD R. VAN DER VAART

Secretary

S. JAY ZIMMERMAN

Director

May 12, 2016



Mr. Philip S. Harris, III, P.E., CPM
Natural Environment Section Head
Project Development and Environmental Analysis
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for the new location facility from SR 2011 to the Haw River at US 220 in Guilford County, TIP R-2413A/B.
NCDWR Project No. 20130517 v. 5

Dear Mr. Harris:

Attached hereto is a modification of Certification No. 3971 issued to The North Carolina Department of Transportation (NCDOT) dated October 11, 2013 with modifications 20130517v.2 dated February 3, 2014, 20130517v.3 dated October 13, 2014, and 20130517v.4 dated June 2, 2015.

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

Sincerely,

S. Jay Zimmerman, Director
Division of Water Resources

Attachments

Electronic copy only distribution:

David Bailey, US Army Corps of Engineers, Raleigh Field Office
Jerry Parker, Division 7 Environmental Officer
Rodger Rochelle, NC Department of Transportation
Colin Mellor, NC Department of Transportation
Carla Dagnino, NC Department of Transportation
Dr. Cynthia Van Der Wiele, US Environmental Protection Agency
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
File Copy

**Modification to the 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 Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to permanently impact an additional 46 linear feet of jurisdictional streams in Guilford County. The project shall be constructed pursuant to the modification dated received April 26, 2016. The authorized impacts are as described below:

Stream Impacts in the Cape Fear River Basin

Site	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 ft)	Stream Impacts Requiring Mitigation (linear ft)
24	-	-	46	10	56	-
Total	-	-	46	10	56	-

Total Stream Impact for Modification: 56 linear feet

The application provides adequate assurance that the discharge of fill material into the waters of the Cape Fear River Basin or wetlands 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 modified application dated received April 26, 2016. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated October 11, 2013 and subsequent modifications dated February 3, 2014, October 13, 2014, and June 2, 2015 still apply except where superseded by this certification. Should your project change, you are required to notify the NCDWR 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.

Condition(s) of Certification:

1. This modification is applicable only to the additional proposed activities. All of the authorized activities and conditions of certification associated with the original Water Quality Certification dated October 11, 2013 and subsequent modifications dated February 3, 2014, October 13, 2014, and June 2, 2015 still apply except where superseded by this certification.

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 DEQ as follows:

Mr. Sam M. Hayes, General Counsel
Department of Environmental Quality
1601 Mail Service Center

This the 12th day of May 2016

DIVISION OF WATER RESOURCES



S. Jay Zimmerman, Director

WQC No. 3971



PAT MCCRORY

Governor

DONALD R. VAN DER VAART

Secretary

S. JAY ZIMMERMAN

Director

NCDWR Project No.: 20130517 County: Guilford

Applicant: NC DOT

Project Name:

Date of Issuance of 401 Water Quality Certification: October 11, 2013

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 Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR 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

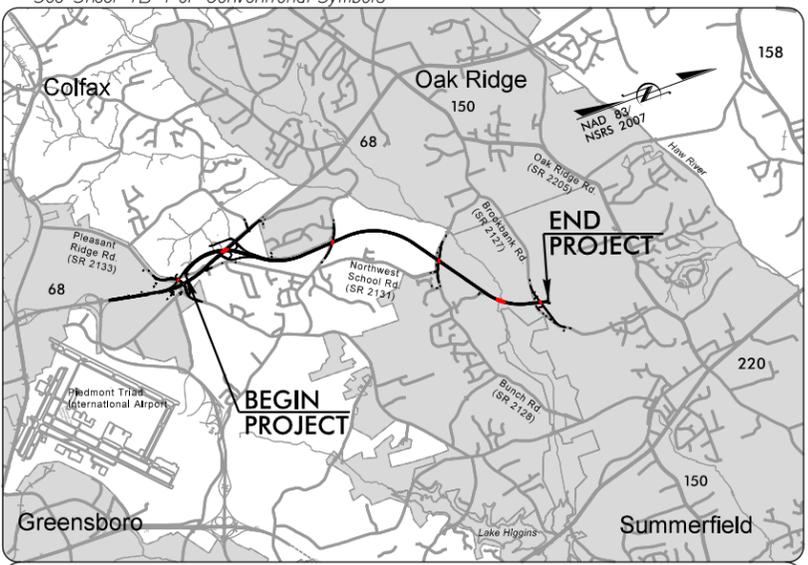
Partial Final

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

09/08/99

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GUILFORD COUNTY

LOCATION: FUTURE I-73 FROM EAST OF SR 2127
(BROOKBANK ROAD) TO HAW RIVER

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

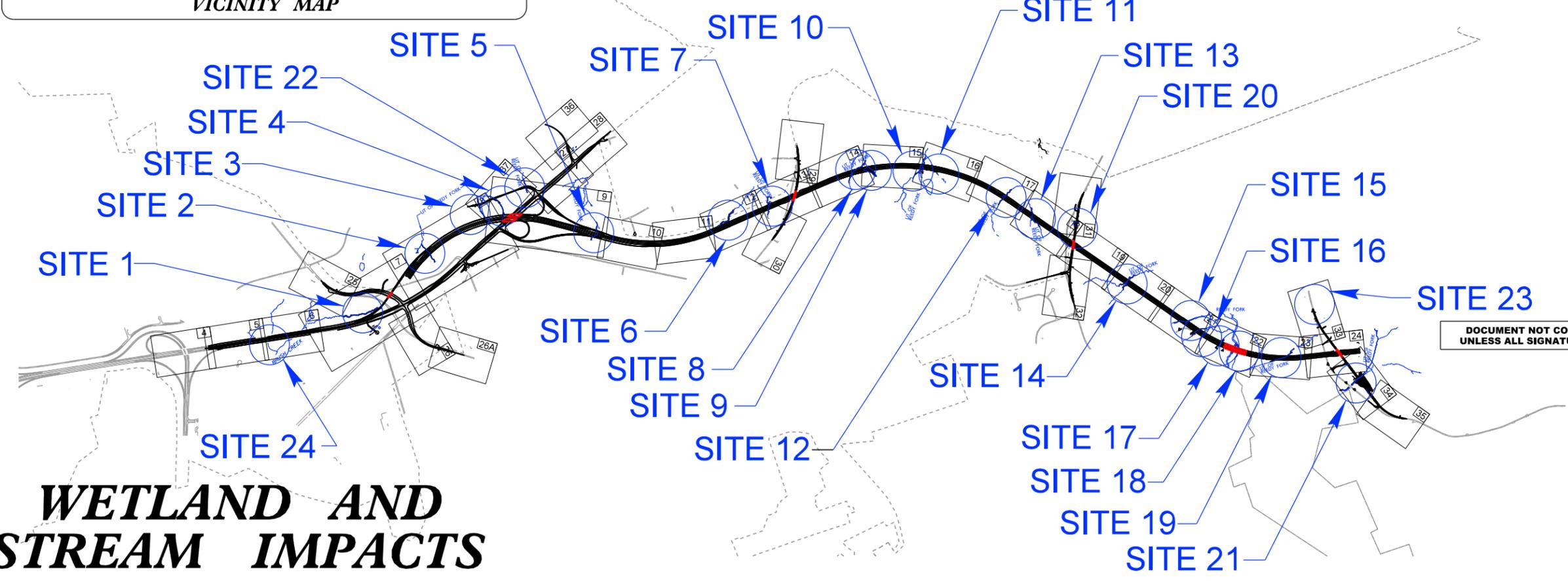
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2413A	1	
WB NO.	F.A. PROJ. NO.	DESCRIPTION	
34429.3.S8	NHF-0073(25)	PE	



REVISED 9/12/2014, 3/18/2016
PERMIT DRAWING
SHEET 1 OF 81

TIP PROJECT: R-2413A

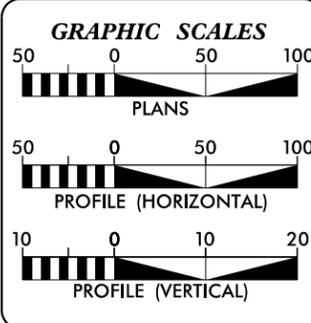
CONTRACT: C203433



**WETLAND AND
STREAM IMPACTS**

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.



DESIGN DATA

ADT 2014	=	24,500
ADT 2035	=	42,200
DHV	=	11%
D	=	65%
*T	=	15%
v	=	70 mph

(*TTST 10% + DUALS 5%)
FUNC. CLASS = INTERSTATE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2413A.....	4.807 mi
LENGTH STRUCTURES TIP PROJECT R-2413A.....	0.146 mi
TOTAL LENGTH TIP PROJECT R-2413A.....	4.953 mi

NCDOT CONTACT

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

PLANS PREPARED BY:

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

**FOR NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

2012 STANDARD SPECIFICATIONS

LETTING DATE:
APRIL 2014

FLATIRON a joint venture

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

Brandon J. McInnis, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

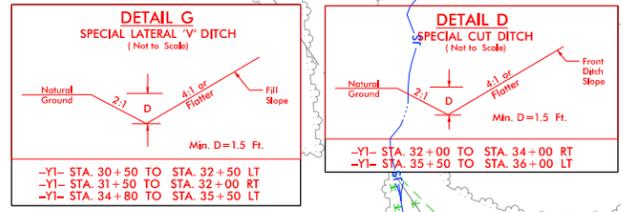
SIGNATURE: _____ P.E.



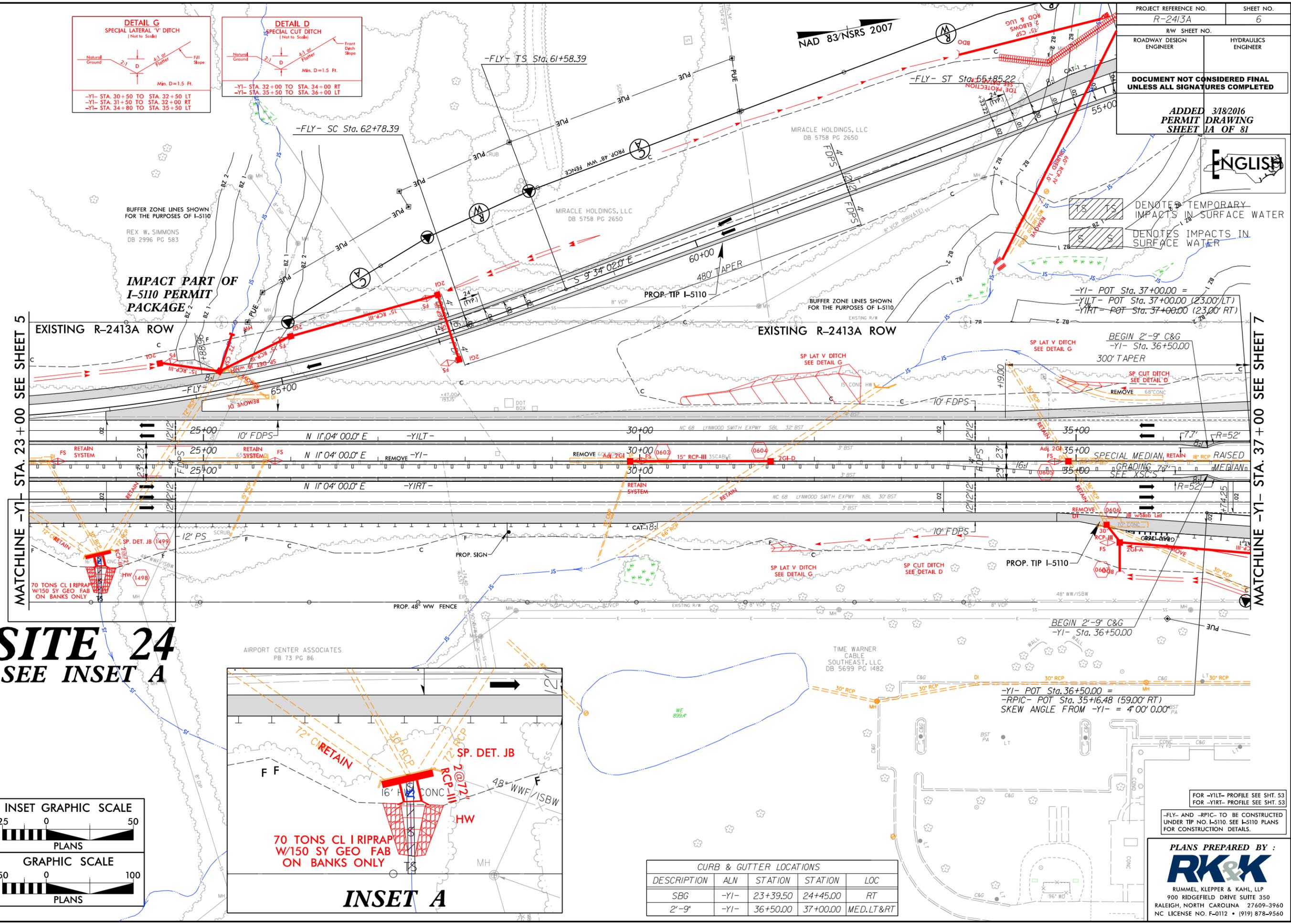
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ENGLISH

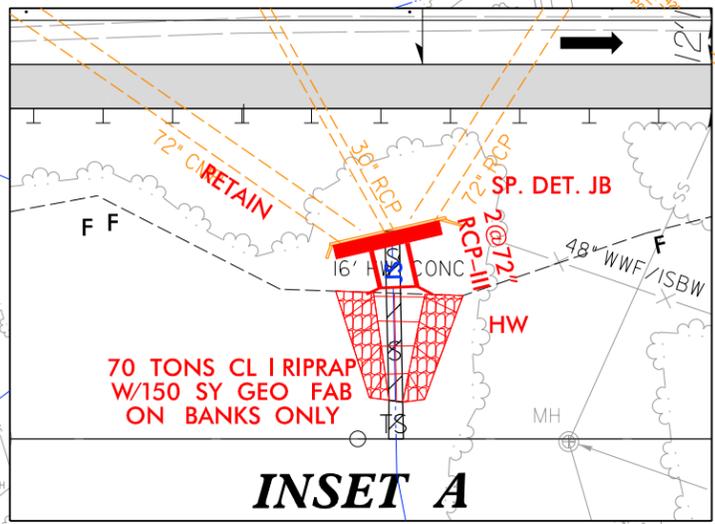
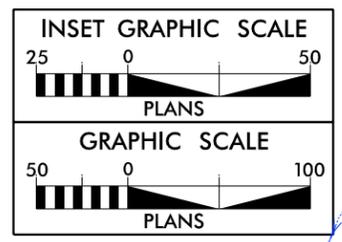
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN SURFACE WATER



8/17/99
 3/16/2016
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**SITE 24
SEE INSET A**

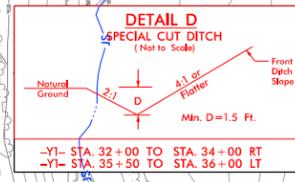
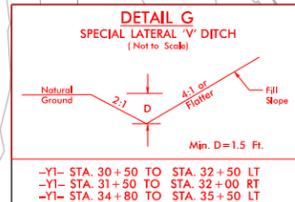


CURB & GUTTER LOCATIONS				
DESCRIPTION	ALN	STATION	STATION	LOC
SBG	-YI-	23+39.50	24+45.00	RT
2'-9"	-YI-	36+50.00	37+00.00	MED. LT & RT

FOR -YILT- PROFILE SEE SHT. 53
 FOR -YIRT- PROFILE SEE SHT. 53
 -FLY- AND -RPIC- TO BE CONSTRUCTED UNDER TIP NO. I-5110. SEE I-5110 PLANS FOR CONSTRUCTION DETAILS.

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

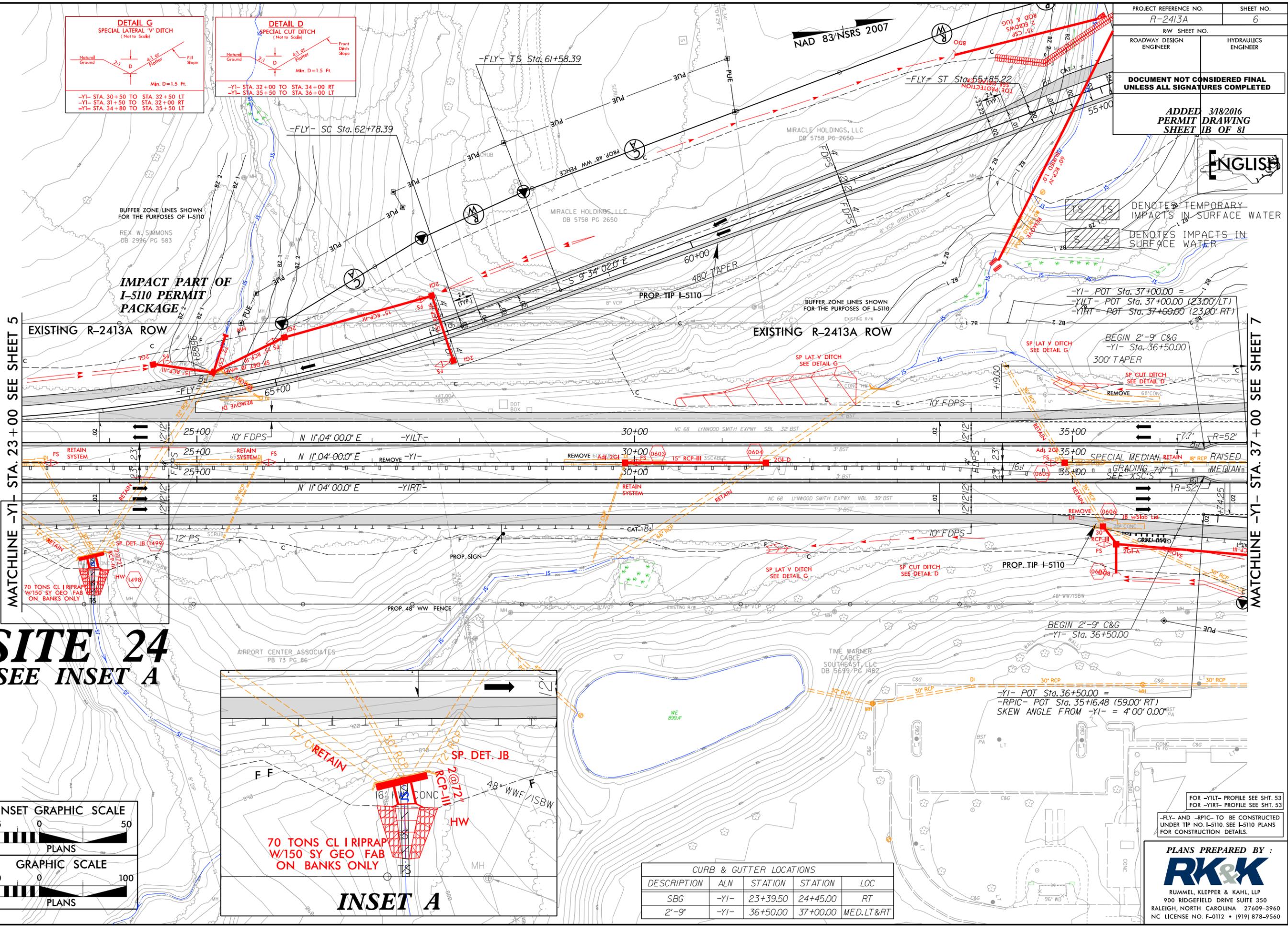
PROJECT REFERENCE NO. R-2413A	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
ADDED PERMIT DRAWING SHEET 1B OF 81	



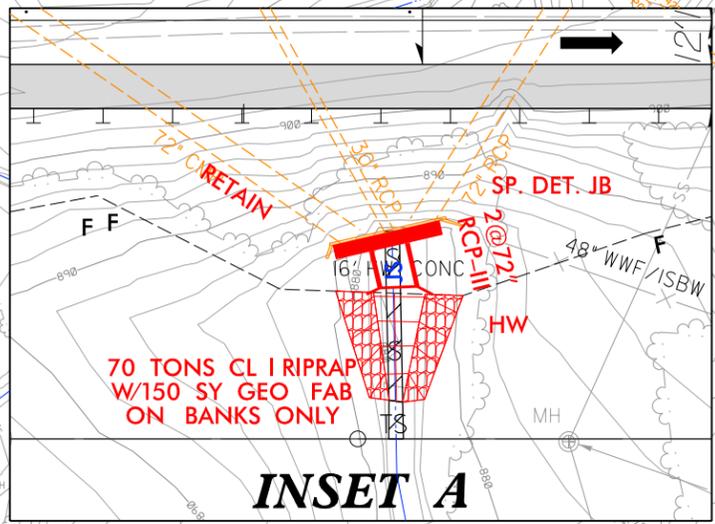
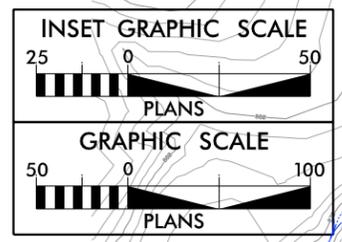
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3/16/2016
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MATCHLINE -YI- STA. 23+00 SEE SHEET 5

MATCHLINE -YI- STA. 37+00 SEE SHEET 7



SITE 24
SEE INSET A



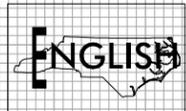
CURB & GUTTER LOCATIONS

DESCRIPTION	ALN	STATION	STATION	LOC
SBG	-YI-	23+39.50	24+45.00	RT
2'-9"	-YI-	36+50.00	37+00.00	MED. LT & RT

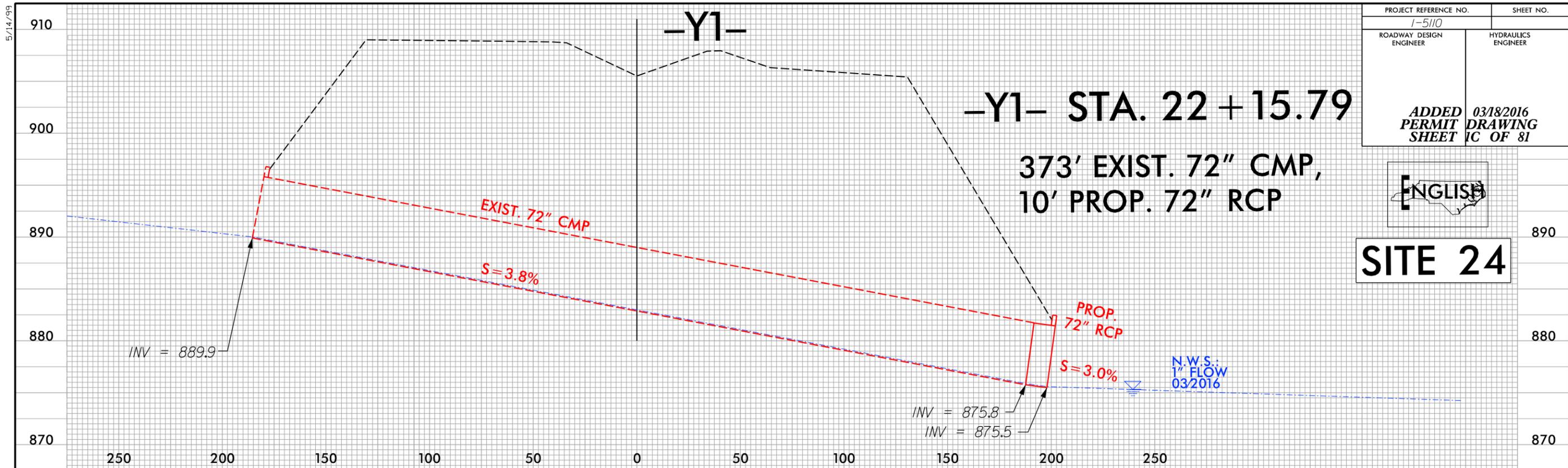
FOR -YILT- PROFILE SEE SHT. 53
FOR -YIRT- PROFILE SEE SHT. 53
-FLY- AND -RPIC- TO BE CONSTRUCTED UNDER TIP NO. I-5110. SEE I-5110 PLANS FOR CONSTRUCTION DETAILS.

PLANS PREPARED BY :
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900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
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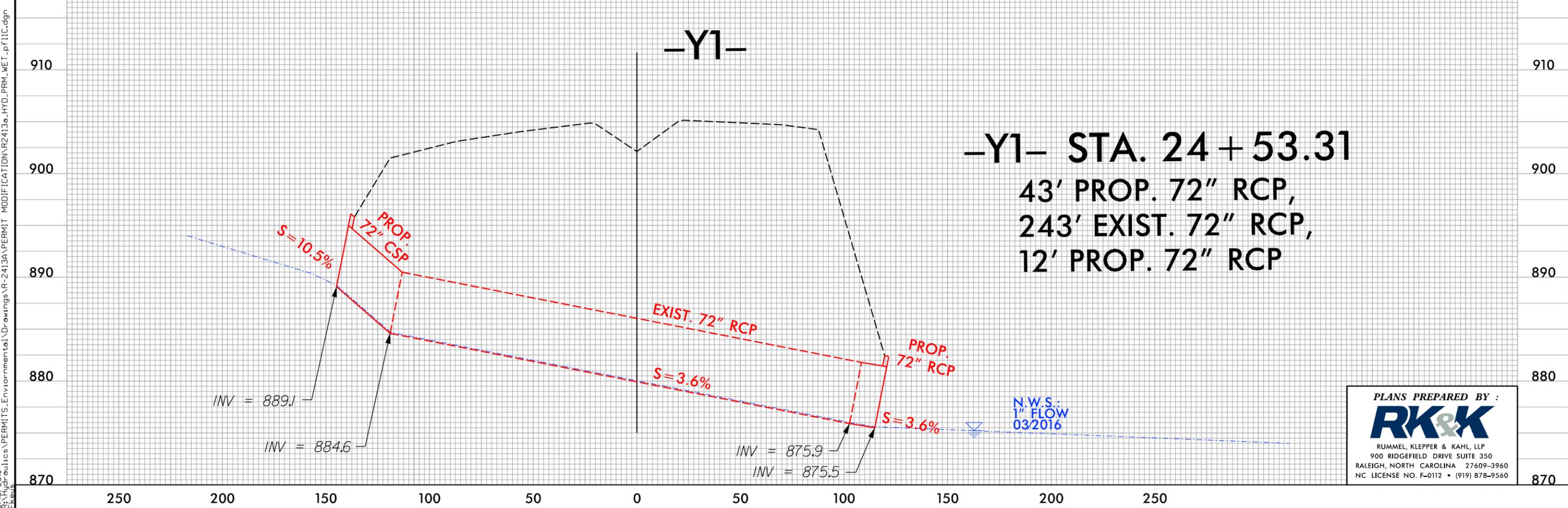
PROJECT REFERENCE NO. I-5110	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
ADDED PERMIT SHEET	03/18/2016 DRAWING IC OF 81



SITE 24



-Y1- STA. 22 + 15.79
 373' EXIST. 72" CMP,
 10' PROP. 72" RCP



-Y1- STA. 24 + 53.31
 43' PROP. 72" RCP,
 243' EXIST. 72" RCP,
 12' PROP. 72" RCP

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

5/14/99
 3/16/2016
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WETLAND PERMIT IMPACT SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-RP1B- 34+00 -Y1- 50+00	60" RCP-CD	0.02					0.12	<0.01	630	11	
		Bank Stabilization								21		
2	-L- 117+00											
2A		Road Fill	<0.01			<0.01		0.01	<0.01	83	41	
2B		Road Fill						<0.01		50		
2C		60" CSP						0.02	<0.01	351	21	
		Bank Stabilization								23		
3	-L- 133+00 -Y1C- 13+00	36" CSP 42" RCP-IV						0.02	<0.01	193	32	
		Bank Stabilization								32		
4	-L- 138+00 -Y1C- 17+00	36" CSP 42" RCP-IV	0.23			0.01		0.03	<0.01	521	49	
		Bank Stabilization								29		
5	-L- 161+0-162+0	66" SPSP						0.03	<0.01	408	33	
		Bank Stabilization								20		
6	-L- 193+50-197+00	30" RCP & 54" CSP	<0.01					0.04	<0.01	409	21	
		Bank Stabilization								23		
SUBTOTALS:			0.24			0.01		0.27	<0.07	2793	208	

** SITE 1 PERMANENT FILL IN WETLAND IN ORIGINAL PERMIT WAS CALCULATED WRONG DUE TO A ROUNDING ERROR. IT WAS LISTED AS 0.01 AC; IT SHOULD HAVE BEEN 0.02AC

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 WBS - 34429.1.1 (R-2413A)
 PERMIT DRAWING REVISED
 SHEET 78 OF 81 9/3/2014

WETLAND PERMIT IMPACT SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
7	206+50 to 208+50 -L-	60" CSP & 54" CSP										
7a.								0.03	<0.01	379	11	
7b.								<0.01	<0.01	26	10	
7c.								<0.01		31		
		Bank Stabilization								55		
8	228+00 TO 233+50 -L-	66" CSP										
8a.								0.06	<0.01	654	50	
8b.								<0.01		50		
8c.								<0.01		34		
		Bank Stabilization								21		
9	232+50 TO 235+50 -L-	42" CSP						0.60 (pond)				
10	247+50 -L-	72" CSP										
10a.			0.01		<0.01			0.05	<0.01	426	41	
10b.								<0.01		49		
10c.						0.01		0.01		116		
		Bank Stabilization								20		
11	249+50 TO 251+50 -L-	48" CSP	0.12					<0.01	<0.01	47	17	
SUBTOTALS:			0.14		<0.01	0.00		0.16	<0.06	1908	129	

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

 GUILFORD COUNTY
 WBS - 34429..1.1 (R-2413A)
 REVISED
 SHEET 79 OF 81 5/6/2015

ATN Revised 3/31/05

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
12	269+50 -L-	72" CSP										
12a.								0.03		299		1163*
12b.								0.01		131		
13	277+00 to 281+00 -L-	54" RCP										
13a.								0.04	<0.01	525	10	977*
13b.								0.01		106		
14	307+00 -L-	78" CSP										
14a.								0.07		551	20	
14b.								0.02		258	10	
		Bank Stabilization								25		
15	322+50 to 326+00 -L-	54" CSP										
15a.			0.01					0.04	<0.01	513	41	
		Bank Stabilization								20		
15b.								<0.01		46		
16	327+50 to 329+50 -L-	72" CSP										
16a.			0.15					0.02	<0.01	342	29	
		Bank Stabilization								20		
16b.								<0.01		33		
SUBTOTALS:			0.16					0.24	0.03	2,869	110	2,140

* See Plan for On-Site Mitigation

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GUILFORD
 COUNTY
 WBS - 34429.1.1 (R-2413A)

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
12	269+50 -L-	72" CSP										
12a.								0.03		299		1163*
12b.								0.01		131		
13	277+00 to 281+00 -L-	54" RCP										
13a.								0.04	<0.01	525	10	977*
13b.								0.01		106		
14	307+00 -L-	78" CSP										
14a.								0.07		551	20	
14b.								0.02		258	10	
		Bank Stabilization								25		
15	322+50 to 326+00 -L-	54" CSP										
15a.			0.01					0.04	<0.01	513	41	
		Bank Stabilization								20		
15b.								<0.01		46		
16	327+50 to 329+50 -L-	72" CSP										
16a.			0.15					0.02	<0.01	342	29	
		Bank Stabilization								20		
16b.								<0.01		33		
SUBTOTALS:			0.16					0.24	0.03	2,869	110	2,140

* See Plan for On-Site Mitigation

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GUILFORD
 COUNTY
 WBS - 34429.1.1 (R-2413A)

WETLAND PERMIT IMPACT SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
17	-L- 334+00-336+50	36" CSP	0.35			0.03						
18****	-L- 338+00-340+50	Bridge		0.04			0.13		0.03		172	
19	-L- 348+00-353+00	60" RCP						0.03	<0.01	507	34	
20	-Y4- 17+50-19+00	36" CSP	0.11					0.02		240		
21	-Y5- 29+00-36+00	1@12'x12' RCBC										
21A			2.11			0.13		0.06	0.09	288	262	250*
21B		Road Fill						0.01		149		
22	Y1C- 25+50	48" CSP						0.02	<0.01	177	40	
		Bank Stabilization								16		
23	-Y5- 16+50	30" CSP/PDE							<0.01		12	
24	-Y1- 23+81 RT	2 @ 72" RCPs						<0.01	<0.01	15	10	
		Bank Stabilization						<0.01		31		
SUBTOTALS:			2.57	0.04		0.16	0.13	0.14	0.13	1423	530	250
TOTALS:			3.11 **	0.04	<0.01	0.19	0.13	0.78	0.29	8993	977 ***	2390

* SEE PLAN FOR ON-SITE MITIGATION

** PERMANENT FILL IN WETLAND IN ORIGINAL PERMIT WAS SUMMED WRONG. IT WAS LISTED AS 3.13ac; IT SHOULD HAVE BEEN 3.14ac

*** TEMP CHANNEL IMPACT IN ORIGINAL PERMIT WAS SUMMED WRONG. IT WAS LISTED AS 922'; IT SHOULD HAVE BEEN 952'

**** PERMANENT PIER WETLAND IMPACTS= 40sqft

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GUILFORD COUNTY
WBS - 34429.1.1 (R-2413A)

REVISED