

# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER GOVERNOR J.R. "JOEY" HOPKINS Secretary

December 14, 2023

MEMORANDUM TO:	Mr. Brandon Jones, P.E. Division 5 Engineer
FROM:	Dennis Jernigan, P.E. NCTA Deputy Chief Engineer
SUBJECT:	Triangle Expressway Southeast Extension (Complete 540) from NC 55 Bypass in Apex to US 64/264 (I-87) in Knightdale, Wake and Johnston Counties; Federal Aid No. STP-0540(19), STP-0540(20), and STP-0540(21); WBS Nos. 37673.1.TA1, 35516.1.TA1, and 35517.1.TA1; STIP Project Nos. R-2721, R-2828, and R-2829

Attached are the modified US Army Corps of Engineers (USACE) Phased Section 404 Individual Permit, NC Division of Water Resources (NCDWR) Section 401 Individual Water Quality Certification, Neuse Riparian Buffer Authorization, and Non-404 Jurisdictional Wetlands and Waters Permit for the construction of the Triangle Expressway Southeast Extension (Complete 540) from NC 55 Bypass in Apex to US 64/264 (I-87) in Knightdale, Wake and Johnston Counties. STIP Nos. R- 2721, R-2828, and R-2829. *This change is based on the December 8, 2023 letter requesting modification of the permit regarding Permit Site 41 on the R-2828 section of the project. There are changes to the mitigation requirements for impacts to streams and buffers and NCDMS has accepted the increased mitigation.* Subject to any requisite permit modifications, all environmental permits have been received for the construction of the final design sections of this project.

A copy of this permit package is posted on the NCDOT website at: <u>https://xfer.services.ncdot.gov/pdea/PermIssued</u>

cc: w/o attachment (see website for attachments)
Mr. Ron Davenport, P.E. Contracts Management
Mr. Clarence Coleman, P.E., FHWA
Mrs. Heather Montague, Division 5
Mr. Mark Craig, P.E., Division 5
Mr. Boyd Tharrington, P.E., Deputy Chief Engineer
Mr. Corey McLamb, P.E., Division 4
Dr. Majed Al-Ghandour, P.E., Programming and TIP
Mr. Matte Lauffer, P.E., Hydraulics Unit
Mr. Brian Hanks, P.E., Structures Management Unit
Mr. Mark Staley, Roadside Environmental
Mr. John Jamison, Environmental Policy Unit
Ms. Beth Harmon, NCDMS
Ms. Deanna Riffey, Natural Environment Unit-Environmental Coordination & Permitting

Telephone: (919) 707-2700 Fax: (919) 715-5511 Customer Service: 1-877-368-4968 Location: 1 SOUTH WILMINGTON STREET RALEIGH, NC 27601

Website: ncdot.gov



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

December 13, 2023

**Regulatory Division** 

Action ID No. SAW-2009-02240; Complete 540; TIP R-2828

Dennis Jernigan, PE North Carolina Turnpike Authority Deputy Chief Engineer 1578 Mail Service Center Raleigh, NC 27699-1578

Dear Mr. Jernigan:

Reference the Department of the Army (DA) permit issued to the North Carolina Department of Transportation (NCDOT) on October 24, 2019, and subsequently modified. This permit authorized the discharge of fill material into waters of the United States for construction of the Triangle Expressway Southeast Extension (Complete 540) from NC 55 Bypass in Apex to US 64/264 (I-87) in Knightdale, Wake and Johnston Counties. Sections included within this permit are R-2721, R-2828, and R- 2829. Currently, only STIPs R-2721A&B and R-2828 are authorized for construction; STIP R-2829 has not yet been through final design, has not completely minimized impacts to waters and wetlands, nor has a final compensatory mitigation plan.

On December 8 2023, the U.S. Army Corps of Engineers (Corps) received a request from NCDOT to modify the standard permit for the R-2828 project (Mod14 for Complete 540), to include additional permanent stream impacts at Permit Site 41, as follows: Increase of 236 linear feet (0.03 acre) of permanent surface water impacts.

The modification request stated that the additional impacts at Permit Site 41 are for the relocation of the channel and the addition of rip rap. The stream channel (SCY) at Site 41 located at STA 814+00 to 815+00 -L- Lt has become deeply incised with failing and unstable banks in close proximity to the proposed noise wall and ditch line location.

The total waters of the U.S., including wetland impacts, for the modified R-2828 project are as follows:

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Riparian Wetlands Temp./ Perm	Non- Riparian Wetlands Perm	Isolated (Non- 404) Wetlands	Ponds (ac)		Streams	(lf)	
(ac)	(ac)	(ac)		Perm.	Temp.	Structure* Stab.	
4.85 / 19.55	0.07	0.25	8.32	17,078	1,772	2,122	

R-2828	Jurisdictional	Resources	Impacts

\*Structure stabilization is pipe, culvert, and bank stabilization.

The Corps has completed the evaluation of your request and has determined that it is appropriate and reasonable, and that no public notice is required for this modification. Therefore, the permit is modified as requested and as shown on the enclosed revised Permit Drawings, Sheets 1, 90, 91, 92, and 93 of 171, and updated permit summary sheets 166 through 171 of 171, last revised on 12/04/2023.

Additional compensatory mitigation of 472 linear feet of stream mitigation from the North Carolina Division of Mitigation Services (NCDMS) is required. A Compensatory Mitigation Responsibility Transfer Form, referenced in Special Condition 16, for the additional mitigation required by this modification, has been attached.

All conditions of the permit, including the permit expiration date of December 31, 2024, remain in effect as written. Should you have any questions, contact Mr. Eric Alsmeyer, via email at <u>Eric.C.Alsmeyer@usace.army.mil</u> or by telephone at (919) 817-1570.

FOR THE COMMANDER

Monte 2023.12.13 Matthews 14:19:45-05'00'

Monte Matthews Chief, WRDA/Transportation Branch Wilmington District

Enclosures

# U.S. ARMY CORPS OF ENGINEERS Wilmington District <u>Compensatory Mitigation Responsibility Transfer Form</u>

# Permittee: NCDOT, Turnpike Authority Project Name: Mod14; TIP R-2828; Complete 540;

# Action ID: SAW-2009-02240 County: Wake

**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 Wilmington District 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 verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether 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 ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the 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: 03020201, Neuse River Basin

Stream	m Impacts (linea	r feet)	Wetland Impacts (acres)						
Warm	Cool	Cold	<b>Riparian Riverine</b>	Riparian Non-Riverine	Coastal				
236									

\*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: 03020201, Neuse River Basin

Stream	Mitigation (cred	its)	Wetland Mitigation (credits)						
Warm	Cool	Cold	<b>Riparian Riverine</b>	<b>Riparian Non-Riverine</b>	Non-Riparian	Coastal			
472									

# 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 Wilmington District, 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 District 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 District 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. When NCDMS provides mitigation 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 NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District 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 District 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 District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina
  Interagency ReviewTeam (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 District administrative records for both the permit
  and the Bank/ILF Instrument.

# **Comments/Additional Conditions:**

This is additional mitigation required for Mod 14, Permit Site 41.

This form is not valid unless signed below by the District 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 District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to <u>SAWMIT@usace.army.mil</u>).

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

Email:	eric.c.alsmeyer@usace.army.mil
	Wake Forest, NC 27587
	3331 Heritage Trade Drive, Suite 105
	US Army Corps of Engineers
USACE Field Office:	Raleigh Regulatory Field Office
USACE Project Manager:	Eric Alsmeyer

Eric Alemegn

Wilmington District Project Manager Signature

December 13, 2023 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 <a href="http://ribits.usace.army.mil">http://ribits.usace.army.mil</a>.

DocuSign Envelope ID: 479737FA-F680-4F0B-9ABC-6A642255AE87

ROY COOPER Governor ELIZABETH S. BISER Secretary RICHARD E.ROGERS, JR. Director



December 12, 2023

Dennis Jernigan, PE Deputy Chief Engineer NC Turnpike Authority 1578 Mail Service Center Raleigh NC 27699

Subject: MODIFICATION of 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and NEUSE BUFFER RULES, ADDITIONAL CONDITIONS for Proposed construction of the Triangle Expressway Southeast Extension (NC 540) in Wake & Johnston Counties, Federal Aid Project No. STP-0540(19-21), State Project No. 37673.1.TA2, TIP Nos, R-2721, R-2828, & R-2829. NCDWR Project No. 20181249 version 16

Dear Mr. Jernigan:

Attached hereto is a copy of the Modification to Certification No. 4179 issued to The North Carolina Department of Transportation (NCDOT) originally dated February 15, 2019, modified January 30, 2020, April 23, 2020, June 1, 2020, December 29, 2020, March 9, 2021, April 8, 2021, November 1, 2021, May 18, 2022, July 22, 2022 and February 15, 2023, June 19, 2023, July 19, 2023, August 4, 2023, August 11, 2023, and December 12, 2023.

This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]. This Certification does not relieve the permittee of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.

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

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Richard E. Rogers, Director Division of Water Resources

Attachments

Electronic copy only distribution:

Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office Beth Harmon, NC Division of Mitigation Services Jennifer Harris, PE, NC Turnpike Authority Deanna Riffey, NC Department of Transportation File Copy



North Carolina Department of Environmental Quality | Division of Water Resources 512 North Salisbury Street I 161 I Mail Service Center I Raleigh, North Carolina 27699-161 I 919.707.9000

# MODIFICATION of 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and NEUSE BUFFER RULES 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 and ISA NCAC 2B.0714. This certification Modification authorizes the NCDOT to impact an additional 236 linear feet of streams and an additional 7887 square feet of protected riparian buffers in Wake County. The project shall be constructed pursuant to the permit modification request received December 8, 2023. **The additional authorized impacts are as described below:** 

Site	Permanent Impact to Perennial Stream (linear ft)	Impacts requiring Mitigation (linear ft)
41	236	236
Total	236	236

Total Additional Stream Impact for Project R-2828: 236 linear feet

Site	Zone 1 Impact (sq ft)	Zone 1 Buffer Mitigation Required (using 3:1 ratio)	Zone 2 Impact (sq ft)	Zone 2 Buffer Mitigation Required (using 1.5:1 ratio)
41	7887	23661	0	0
Totals	7887	23661	0	0

### Additional Section R-2828 Neuse Riparian Buffer Impacts

Total Additional Buffer Impact for Project R-2828: 7887 square feet.

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

This approval is only valid for the purpose and design that you submitted in your application modification received December 8, 2023. 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). Additional buffer impacts may require compensatory mitigation as described in 15A NCAC 2B.061 l(b)(2). 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.

This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to



interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the date on which the withdrawal was initiated or expanded. Upon the presentation of proper credentials, the Division may inspect the property.

### **Conditions of Certification:**

1. All conditions in the 401 Water Quality Certifications for this project, originally dated February 15, 2019, and all modifications afterwards, still apply.

2. Compensatory mitigation for 236 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Division of Mitigation Service (DMS), and that the DMS has agreed to implement the mitigation for the project. The DMS has indicated in a letter dated December 4, 2023 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the DMS Mitigation Banking Instrument signed July 28, 2010.

3. Compensatory mitigation for impacts to 7887 square feet of protected riparian buffers in Zone 1 shall be required. We understand that you have chosen to perform compensatory mitigation for impacts to protected buffers through use of the North Carolina Division of Mitigation Services (DMS) (formerly NCEEP). Mitigation for unavoidable impacts to Neuse Riparian Buffers shall be provided in the Neuse River Basin and done in accordance with 15A NCAC 2B .0295. The DMS has indicated in a letter dated December 4, 2023 that they will assume responsibility for satisfying the compensatory mitigation requirements for the above-referenced project, in accordance with DMS's Mitigation Banking Instrument signed June 14, 2016.

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment ofup to a maximum of\$25,000.00 per day for each violation.

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) **within sixty (60) calendar days.** Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition forms may be accessed at <a href="http://www.ncoah.com/">http://www.ncoah.com/</a> or by calling the OAH Clerk's Office at (919) 431-3000.

A party filing a Petition must serve a copy of the Petition on: William F. Lane, General Counsel Department of Environmental Quality 1601 Mail Service Center Raleigh, NC 27699-1601



If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).

This the 12<sup>th</sup> day of December 2023

### DIVISION OF WATER RESOURCES

DocuSigned by: Ing Chapman 4F4DD2F21EA846E...

Richard E. Rogers, Jr, Director

WQCNo. 4179





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			W	ETLAND AI	ND SURAC	E WATER IN	IPACTS S	UMMARY			Permit Drawing Last Revised o	g Package on 02/24/20
				WET	LAND IMPA	CTS			SURFA	CE WATER II	MPACTS	
							Hand			Existing	Existing	
			Permanent	Temp.	Excavation	Mechanized	Clearing	Permanent	Temp.	Channel	Channel	Natural
Site	Station	Structure	Fill In	Fill In	in	Clearing	in	SW	SW	Impacts	Impacts	Stream
No.	(From/To)	Size / Type	Wetlands	Wetlands	Wetlands	in Wetlands	Wetlands	impacts	impacts	Permanent	Temp.	Design
			(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ft)	(ft)	(ft)
1*	503+27 (RT)	RDWY Fill (WCD)	0.161									
2	505+24, 505+63 (LT)	9'x8' RCBC (SBP)						0.03	0.002	519.00	20.000	
2	505+24, 505+63 (LT)	9'x8' RCBC Pipe Stabil. (SBP)						0.01		95.00		
3	506+50 (RT)	42" RCP(WCE(1),WCE(2),SBR)	0.546			0.007		0.00	0.000	90.00	10.000	
3	506+50 (RT)	42" RCP Pipe Stabilization (SBR)						0.00		35.00		
4	508+50 (LT)- 511+70 (RT)	Drain Pond (PM)						1.57				
5**	508+60-515+40 (RT)	RDWY Fill (WCF) / Stream (SBR)	0.033					0.03		462.00		
6	512+15 (LT)	RDWY Fill (WCH) / Stream (SBU)	0.018		0.009	0.035		0.02	0.004	173.00	33.000	
7	515+32 (LT) - 520+00 (LT)	RDWY Fill (WCI) / Stream (SBS)	0.673		0.067	0.054		0.00		27.00		
8	529+75 - 531+00 (RT)	Roadway Fill (WCJ)	0.118			0.010						
9	545+63 - 548+40	Roadway Fill (WCL)	0.220									
10	548+68 (LT)-549+40 (RT)	6'x8' RCBC (SBY, WCM)				0.003		0.05	0.002	485.00	18.000	
10	548+68 (LT)-549+40 (RT)	Culvert Stabilization (SBY)						0.01		77.00		
10	548+68 (LT)-549+40 (RT)	Bank Stabilization (SBY)						0.00		14.00		
11	557+67 (RT)-559+60 (LT)	9'x8' RCBC (WCQ, SBX)	0.077			0.043		0.08	0.004	484.00	22.000	
11	557+67 (RT)-559+60 (LT)	9'x8' RCBC Culvert Stabil. (SBX)						0.01		70.00		
11	557+67 (RT)-559+60 (LT)	Bank Stabilization (SBX)						0.00		7.00		
12	558+00 (RT)	Roadway Fill (WCR)	0.055									
13	Ramp Quad C (-Y17-)	Drain Pond (PN)						1.04				
13	Ramp Quad C (-Y17-)	Roadway Fill (WCV)	0.020			0.005						
13**	Ramp Quad C (-Y17-)	Roadway Fill (WCW)	0.043									
13A	Ramp Quad A (-Y17-)	Drain Pond (PP)						1.01				
13A	Ramp Quad A (-Y17-)	Roadway Fill WCZ(2)	0.400	0.001								
										0500	400	-

			V				ΙΜΡΔΩΤΟ				Permit Drawing Last Revised o	J Package n 02/24/20
			• •	WE <sup>-</sup>	TLAND IMPA				SURFA		IPACTS	
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands	Temp. Fill In Wetlands	Excavation in Wetlands	Mechanized Clearing in Wetlands	Hand Clearing in Wetlands	Permanent SW impacts	Temp. SW	Existing Channel Impacts Permanent	Existing Channel Impacts Temp.	Natural Stream Design
110.			(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ft)	(ft)	(ft)
14	609+07 (LT)-610+38 (RT)	Roadway Fill (WCZ(1))	1.284		()	0.271	()	()			( )	
14	609+07 (LT)-610+38 (RT)	10'x8' RCBC (SCC)						0.02	0.001	322.00	10.000	-
14	609+07 (LT)-610+38 (RT)	Culvert Stabilization (SCC)						0.01		78.00		
14	609+07 (LT)-610+38 (RT)	10'x8' RCBC (SCK)						0.02	0.001	257.00	10.000	
14	609+07 (LT)-610+38 (RT)	Culvert Stabilization (SCK)						0.00		26.00		
15	616+50 (RT)	Drain Pond PQ, WCZ(2)						0.35				
15A	616+50 (RT)	Energy Dissipator (WCZ(2)	0.000			0.002						
16	618+00 (RT)	Drain Pond (PR)						1.01				
17	622+30 - 622+54 (RT)	Roadway Fill (WCZ(1))	0.014			0.005						
18	653+75 - 655 + 50 (LT)	Roadway Fill (WDB)	0.356			0.037						
18A	-Y18A- 15+00 - 17+50	Roadway Fill (WDD)	0.196			0.096						
18B	-Y18A- 19+50	18" RCP (SCF)						0.01	0.001	47.00	10.000	
18B	-Y18A- 19+50	18" RCP Pipe Stabil. (SCF)						0.01		17.00		
19	BRIDGE	Bank Stabilization (SCG)						0.00	0.003	10.00	17.000	
19A	BRIDGE	Roadway Fill (WDB)	0.033			0.020	0.853					
20	662+00 - 671+00	Roadway Fill (WDB)	2.000			0.117						
21	689+00 - 691+00 (LT)	Roadway Fill (WDF)	0.186		0.018	0.049						
22	690+00 - 691+75 (RT)	Drain Pond (PU)						0.87				
23	692+20 - 703+00	Roadway Fill (WDG(1))	2.754		0.375	0.261						
24	699+00 - 700+00 (LT)	Drain Pond (PW)						0.12				
25	703+00 - 705+40	Drain Pond (PV)						0.93				
26	697+00 -709+00	Roadway Fill (SCL)						0.06	0.001	1047.00	10.000	
26	697+00 -709+00	Culvert Stabilization (SCL)						0.00		30.00		
SHEET 2	SUBTOTAL S***		6 823	0 000	0 394	0.858	0.853	3 404	0.007	1834 000	57 000	0.000
SHEET 2	SUBTOTALS***:		6.823	0.000	0.394	0.858	0.853	3.404	0.007	1834.000	57.000	
NOTES: Represent	s an isolated wetland impact (also not	n-riparian)							NC D	EPARTMENT (	OF TRANSPO	RTAT
**Roundec	totals are sum of actual impacts									UIVISION C 03/0 WAKE & TIP NC	4/2020 JOHNSTON D.R-2828	2
										WR2 NO.	3/0/3.1.1A2	

			,								Permit Drawino Last Revised o	g Package on 02/16/21
			,	WEILAND WE	AND SURA TLAND IMPA		IMPACI 5	SUMMAR I	SURFA	CE WATER IN	/PACTS	
Site	Station	Structure	Permanent Fill In	Temp. Fill In	Excavation	Mechanized Clearing	Hand Clearing in	Permanent SW	Temp. SW	Existing Channel Impacts	Existing Channel Impacts	Natura Strean
No.	(From/To)	Size / Type	Wetlands (ac)	Wetlands (ac)	Wetlands (ac)	in Wetlands (ac)	Wetlands (ac)	impacts (ac)	impacts (ac)	Permanent (ft)	Temp. (ft)	Desigr (ft)
26A	707+50	Roadway Fill (SCM)						0.01	0.002	266.00	35.000	
26A	707+50	Culvert Stabilization (SCM)						0.00		65.00		
27	705+75 - 714+00	Roadway Fill (WDH)	2.443		0.030	0.236						
28	711+00 - 714+00 (LT)	Roadway Fill (SCN)						0.01	0.001	156.00	10.000	
29	726+50 - 728+00 (RT)	Drain Pond (PY)						1.40				
30	728+00 - 734+50 (RT)	Channel Change (SCQ)						0.06		673.00		
31	736+00	Roadway Fill (WDJ, SCQ)	0.375			0.092		0.03	0.007	130.00	58.000	
32	736+70 (LT) - 738+00 (RT)	2 @ 8'x9' RCBC (SCP)						0.07	0.016	379.00	92.000	
32	736+70 (LT) - 738+00 (RT)	Culvert Stabilization (SCP)						0.01		44.00		
32	736+70 (LT) - 738+00 (RT)	Bank Stabilization (SCP)						0.00		29.00		
33	759+00 (RT) - 759+82 (LT)	Roadway Fill (WDM)	0.392			0.030						
34	767+65 (RT)	Roadway Fill (WDN)				0.001						
35	782+00 (LT)	9'x8' RCBC (SCT)						0.05	0.004	441.00	37.000	
35	782+00 (LT)	Culvert Stabilization (SCT)						0.01		47.00		
35	782+00 (LT)	Bank Stabilization (SCT)						0.00		18.00		
36	782+00 - 787+20	Roadway Fill (WDO)	0.707		0.002	0.060						
37	785+90 (RT) - 787+70 (LT)	48" RCP (SCV)						0.03	0.003	394.00	20.000	
37	785+90 (RT) - 787+70 (LT)	Pipe Stabilization (SCV)						0.00		37.00		
38	788+00 (LT)	Roadway Fill (WDP)				0.006						
39	812+00 - 813+00 (LT)	Roadway Fill (WDS)	0.080									
40	812+90 - 813+37 (LT)	Channel Change (SDB)						0.01		54.00		
40	813+50 (LT)	Channel Change (SDC)						0.01		93.00		
40A*	-Y21- 40+00 (LT)	Roadway Fill (WDR)	0.091									
40B	-Y21- 44+40 (RT)	Roadway Fill (SCZ)						0.00	0.001	52.00	13.000	
SHEET 3 S	SUBTOTALS***:		4.09	0.00	0.03	0.43	0.00	1.70	0.03	2878	265	0

				WFTI A				ACTS SUM	MARY	Peri Las	mit Drawing F t Revised on	<sup>v</sup> ackage 12/04/2023
				WE	TLAND IMP	ACTS			SURFACE	WATER IM	PACTS	
							Hand			Existing	Existing	
			Permanent	Temp.	Excavation	Mechanized	Clearing	Permanent	Temp.	Channel	Channel	Natural
Site	Station	Structure	Fill In	Fill In	in	Clearing	in	SW	SW	Impacts	Impacts	Stream
No.	(From/To)	Size / Type	Wetlands	Wetlands	Wetlands	in Wetlands	Wetlands	impacts	impacts	Permanent	Temp.	Design
			(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ft)	(ft)	(ft)
41	813+50 (LT) - 829+50 (RT)	Channel Change (SCY)						0.24	0.03	1689	130	
41	-Y21- 44+50 (RT)	18" CSP (SCY)						< 0.01		58		
41	-Y21- 44+50 (RT)	Pipe Stabilization (SCY)						< 0.01		21		
41	829+50 (LT) - 834+00 (RT)	Bank Stabilization (SCY)						0.09		340		
42	BRIDGE 832+50 (RT)	Work Trestle (WDU)					0.02					
44	BRIDGE	Bridge****	0.02		0.02		0.54		0.05		238	
44	BRIDGE	Bank Stabilization						0.01		44		
45	841+78 - 843+00 (LT)	Roadway Fill (WDV)	0.05			0.03						
47	856+50 - 861+50	Roadway Fill (WDV)	0.37			0.05						
48	861+40 - 866+30	Work Trestle (WDV)	0.02			< 0.01	0.65					
49	867+50 - 868+50	Work Trestle (WDY)	< 0.01				0.17					
50	876+00	14'X8' RCBC (SDJ)						0.03	< 0.01	318	46	
50	876+00	Culvert Stabilization (SDJ)						< 0.01		42		
50	876+00	Bank Stabilization (SDJ)						< 0.01		48		
50A	875+50 - 877+00	Roadway Fill (WDZ)	0.56			0.09						
51	890+00	42" RCP (SDK)						< 0.01	< 0.01	32	10	
51	890+00	Pipe Stabilization (SDK)						< 0.01		21		
51A	890+00	Roadway Fill (WEA)	0.29									
52	895+00	60" RCP (SDL)						0.05	< 0.01	588	20	
52	895+00	Pipe Stabilization (SDL)						< 0.01		39		
53	900+50 (LT) - 906+50 (RT)	42" RCP (SDM)						0.05	< 0.01	948	20	
53	900+50 (LT) - 906+50 (RT)	Pipe Stabilization (SDM)						< 0.01		47		
54	911+00 (LT) - 913+75 (RT)	Roadway Fill (WEC)	1.88			0.10						
SHEET	4 SUBTOTALS***:		3.19		0.02	0.27	1.38	0.50	0.09	4235.00	464.00	
NOTES *Repre **Repre ***Rout ****Imp	S: sents an isolated wetland imp esents any non-riparian wetla nded totals are sum of actual acts are rounded to the neare	oact (also non-riparian) nd impact impacts est hundreds							NC DE	PARTMENT O DIVISION OF 03/04 WAKE & J	F TRANSPO HIGHWAY /2020 OHNSTON	)RTATION 'S

171

HEET 169	) OF
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				WETLA	ND AND S	URACE WA		ACTS SUM	MARY	Pe La	ermit Drawing st Revised o	y Package in 02/24/20
				WE.	TLAND IMP	PACTS			SURFACE	WATER IM	PACTS	
							Hand			Existing	Existing	
			Permanent	Temp.	Excavation	Mechanized	Clearing	Permanent	Temp.	Channel	Channel	Natural
Site	Station	Structure	Fill In	Fill In	in	Clearing	in	SW	SW	Impacts	Impacts	Stream
No.	(From/To)	Size / Type	Wetlands	Wetlands	Wetlands	in Wetlands	Wetlands	impacts	impacts	Permanent	Temp.	Design
			(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ft)	(ft)	(ft)
55	914+00 (RT)-918+50 (LT)	2@ 9'x9' RCBC (SDW)						0.12	< 0.01	834	10	
55	914+00 (RT)-918+50 (LT)	Culvert Stabilization (SDW)						< 0.01		18		
55	914+00 (RT)-918+50 (LT)	Bank Stabilization (SDW)						< 0.01		4		
56	Y22SLIPRPB 38+50 (LT)	Channel Change (SDV)						0.02	< 0.01	518	10	
57	-Y22RPB- 25+42 (LT)	54" RCP (SDT)						0.01	< 0.01	113	10	
57	-Y22RPB- 25+42 (LT)	Pipe Stabilization (SDT)						< 0.01		22		
57A	-Y22RPB- 26+50 (LT)	Channel Change (SDS)						< 0.01	< 0.01	72	10	
58	Y22FLYBD 46+50-47+75	42" RCP (SDT)						0.01	< 0.01	196	20	
58	Y22FLYBD 46+50-47+75	Pipe Stabilization (SDT)						< 0.01		47		
58A	Y22FLYCC 123+00-127+00	54" RCP (SDT)						0.05	< 0.01	485	20	
58A	Y22FLYCC 123+00-127+00	Pipe Stabilization (SDT)						< 0.01		57		
59	Y22FLYCC 119+00 (RT)	15" CSP (SDX)						< 0.01		17	15	
59	Y22FLYCC 119+00 (RT)	Pipe Stabilization (SDX)						< 0.01	< 0.01	75		
59A	Y22FLYCC 119+00 (RT)	Roadway Fill (WEJ)	< 0.01			< 0.01						
70	-Y17- 28+50	24" Pipe Stabilization SCB(1)						< 0.01	< 0.01	20	10	
72	REMOVED	Non-Jurisdictional Pond (PAB)										
73	Y22FLYBD 34+70 (RT)	30" RCP Extension (SDR)						< 0.01	< 0.01	10	10	
73	Y22FLYBD 34+70 (RT)	Pipe Stabilization (SDR)						< 0.01		57		
75	Y22FLYCC 34+00-41+00	Bridge (WEC, SDV)	0.03			0.02	1.56		0.01		254	
76	Y22FLYCC 143+00 (RT)	42" RCP (WEC, SDO)	< 0.01			< 0.01		0.08	< 0.01	1101	10	
77	Y22FLYCC 71+00 (615' LT)	Roadway Fill (WEY)	0.06									
78	REMOVED	60" RCP Pipe Removal (SET)										1
79	Y22FLYBD 83+00 (LT)	54" RCP (SET)						0.04	< 0.01	563	20	1
79	Y22FLYBD 83+00 (LT)	Pipe Stabilization (SET)						< 0.01		44		1
SHEET	5 SUBTOTALS***:	· · · · ·	0.09			0.03	1.56	0.36	0.02	4253	399	0

\*Represents an isolated wetland impact (also non-riparian)

\*\*Represents any non-riparian wetland impact

\*\*\*Rounded totals are sum of actual impacts

NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS 03/04/2020 WAKE & JOHNSTON TIP NO.R-2828 WBS NO. 37673.1.TA2 170 OF

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			WETLA		SURACE \	NATER IMF	PACTS SL	JMMARY		Permit D Last Rev	rawing Pao vised on 12	kage /04/2023
				WE.	TLAND IMP	PACTS		SURFACE WATER IMPACTS				
Site	Station	Structure	Permanent Fill In	Temp. Fill In	Excavation in	Mechanized Clearing	Hand Clearing in	Permanent SW	Temp. SW	Existing Channel Impacts	Existing Channel Impacts	Natural Stream
No.	(From/To)	Size / Type	Wetlands	Wetlands	Wetlands	in Wetlands	Wetlands	impacts	impacts	Permanent	Temp.	Design
			(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ft)	(ft)	(ft)
80	-Y22FLYBD- 83+50 (RT)	Roadway Fill (WEV)	0.03									
81	-Y22RPDE- 29+50 (RT)	Roadway Fill (WEU)	0.04									
82	-Y22FLYBD- 113+30 (RT)	HSB Outlet SEH, (WFN(2))				0.05			< 0.01		10	
82	-Y22FLYBD- 113+30 (RT)	12" Pipe Stabil. (SEH)						< 0.01		15		
82A	-Y22SEC2- 382+00 - 386+00 (LT)	Channel Change (SEM)						0.04	< 0.01	422	20	
83	-Y22SEC2- 396+50 (LT)	Channel Change (SEK, WFF)				< 0.01		< 0.01	< 0.01	28	13	
84	-Y22SEC2- 405+00 (LT)	60" CMP & 72" WSP (SEL)							< 0.01		10	
84	-Y22SEC2- 405+00 (LT)	Pipe Stabilizatoin (SEL)						< 0.01		37		
85	-Y22SEC2- 416+00 (LT)	30" RCP Pipe Extension (SEV)						< 0.01	< 0.01	59	10	
85	-Y22SEC2- 416+00 (LT)	Pipe Stabilizatoin (SEV)						< 0.01		19		
87	-Y22SEC2- 474+20 (LT)	42" Pipe (SES)							< 0.01		10	
87	-Y22SEC2- 474+20 (LT)	Pipe Stabilization (SES)						< 0.01		10		
88	-Y22SEC2 (LT) - 80+00 (LT)	48" RCP (SES)						0.02	< 0.01	244	20	
88	-Y22SEC2 (LT) - 80+00 (LT)	Pipe Stabilizatoin (SES)						< 0.01		30		
91	Y22FLYCC 121+30/121+90 (RT)	Haul Road (SDQ)							0.01		66	
92	Y22RPB 23+65/24+85 (LT)	Ex. Piers & Bridge Demolition (WEL, SDS)		0.05					< 0.01		92	
93	Y22RPB 26+27 (LT)	Ex. Piers & Bridge Demolition (WEK, SDS)		< 0.01					< 0.01		35	
	SHEET 1 SUBTOTALS		2.36	< 0.01	0.08	0.16		3.88	0.01	2538	103	
	SHEET 2 SUBTOTALS		6.82		0.39	0.86	0.85	3.40	< 0.01	1834	57	
	SHEET 3 SUBTOTALS		4.09		0.03	0.43		1.70	0.03	2878	265	
	SHEET 4 SUBTOTALS		3.19		0.02	0.27	1.38	0.50	0.09	4235	464	
	SHEET 5 SUBTOTALS		0.09			0.03	1.56	0.36	0.02	4253	399	
TOTAL	S***:	<u> </u>	16.62	0.05	0.52	1.79	3.79	9.92	0.19	16602	1574	0

\*Represents an isolated wetland impact (also non-riparian)

\*\*Represents any non-riparian wetland impact

\*\*\*Rounded totals are sum of actual impacts

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NC DE	PARTMENT O	F TRANSP	ORTATION						
	DIVISION OF	F HIGHWA	YS						
	03/04/2020								
	WAKE & J	OHNSTON	J						
	TIP NO	.R-2828							
WBS NO. 37673.1.TA2									
EET	171	OF	171						





		RIF	PARIAN BU	JFFER IN	<b>IPACTS</b>	SUMMA	RY					Permit Drawin Last Revised	ng Package on 02/08/21
						IMP	ACTS		1			BUE	FFR
				TYPE		A	ALLOWABLE			MITIGABLE			CEMENT
Site No.	Station (From/To)	Structure Size / Type	ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )
2	504+97/506+71	9'x 8' RCBC (SBP)	х						35356	21738	57094		
3	507+31/508+60	42" RCP (SBR)	x						7141	3053	10194		
4	508+63/512+01	Drain Pond (PM)	x						35178	17273	52451		
6	510+58/513+01	Roadfill and ditch (SBU)	х						12287	9439	21726		
7	512+00/515+95	Roadfill (SBR)	х						28472	20582	49054		
7	516+00	Roadfill (SBS)	х			13	1188	1201					
10	547+53/548+95	6'x8' RCBC (SBY)	х						31339	19181	50520		
11	557+20/560+26	9'x8' RCBC (SBX)	х						32579	20144	52723		
13	Y17RPC 17+84/22+90	Drain Pond PN	х						31217	16189	47406		
14	608+59/609+98	10'x8' RCBC (SBX)	х						25640	15608	41248		
18A	636+21/637+82	Roadfill			х				130	3197	3327		
19	659+00/660+60	Bridge (SCG)		Х		13347	9046	22393					
19	659+68/660+37 (LT)	Drainage Ditch	x						1018	765	1783		
25	702+59/705+63	Drain Pond (PV)	х						21884	12478	34362		
26	696+93/702+59	Roadfill (SCL)	х						36364	21292	57656		
26	705+63/707+50	Roadfill Ditch (SCL)	х						24121	11956	36077		
26A	707+50/708+33	10'x8' RCBC (SCM)	х						19525	11354	30879		
29	724+43/728+35	Drain Pond (PY)	х						29652	9461	39113		
30	728+35/734+79	Roadfill and Ditch (SCQ)	х						41465	25923	67388		
31	736+09/737+12	Roadfill (SCQ)	х						12230	5453	17683		
32	737+12/737+67	2@ 9'x8' RCBC (SCP)	х						29672	13897	43569		
35	781+52/783+35	9'x8' RCBC (SCT)	x						31457	19477	50934		
37	785+28/788+61	48" RCP (SCV)	х						27178	17260	44438		
TOTAL	S*:					13360	10234	23594	513905	295720	809625	0	0

NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS 03/04/2020 WAKE & JOHNSTON TIP NO. R-2828 WBS NO. 37673.1.TA2 SHEET 37 OF 42

		RIF	PARIAN BU	JFFER II	MPACTS S	SUMMA	RY				Pe	ermit Drawing ast Revised or	Package 12/04/2023
						IMP	ACTS					BUE	FFR
				TYPE		ALLOWABLE			MITIGABLE			REPLACEMENT	
Site No.	Station (From/To)	Structure Size / Type	ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )
40B	803+66/804+26	Roadfill Ditch (SCY)			х				5079	2317	7396		
41	803+66/804+26	18" CSP (SCY)			х				5095	1729	6824		
41	812+81/827+66	Roadfill Ditch (SCY)			х				87128	46967	134095		
41	831+01/831+19	New Channel Tie In	х						1027	911	1938		
41	828+33/838+25	Bridge (SCY)		Х		65438	37217	102655					
46	844+25/844+76	36" RCP			x					270	270		
48	866+00/868+47	Bridge (SDG)		Х		14740	12098	26838					
50	875+30/877+40	14'X8' RCBC (SDJ)	х						25494	15386	40880		
51	888+93/889+94	42" RCP (SDK)	х			6023	5029	11052					
52	894+45/895+98	60" RCP (SDL)	х						36709	21474	58183		
53	900+35/907+05	42" RCP (SDM)	х						59490	36433	95923		
55	914+63/919+22	2@ 9'x9' RCBC (SDW)	х						50950	33292	84242		
56	913+58/917+59	Roadway Fill (SDV)	х						31949	22268	54217		
57	Y22RPB 24+86/26+00	54" RCP Pipe Extension (SDT)	х			6816	4456	11272					
57A	Y22RPB 25+94/27+66	Roadway Fill (SDS)			x				6090	4471	10561		
58	Y22FLYBD 48+12/46+10	42" pipe (SDT)	х						14654	8100	22754		
58A	Y22FLYCC 127+31/122+31	54" pipe (SDT)	х						32839	21340	54179		
59A	Y22FLYCC 116+13/117+87	Roadfill (SDQ)			x				3201	4149	7350		
70	Y17A 11+15/11+61	24" CSP (SCB1)	х						1931	589	2520		
72	Y21C 10+70/11+70	Roadfill			х				829	1377	2206		
73	Y22FLYBD 35+23/34+64	Roadfill	х			2357	1339	3696					
74	Y22FLYCC 33+58/34+58	Roadfill (SDV)			x				1566	2406	3972		
75	Y22FLYCC 36+14/38+48	Bridge		Х		13991	9505	23496					
76	919+00/929+36	Roadfill (SDO)	х						64308	45001	109309		
TOTAL	S*:					109365	69644	179009	428339	268480	696819	0	0

NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS 02/24/2020 WAKE & JOHNSTON TIP NO. R-2828 WBS NO. 37673.1.TA2 SHEET 38 OF 42

	RIF		JFFER II		SUMMA	RY		
					IMP	ACTS		
			TYPE		A	E		
Station (From/To)	Structure Size / Type	ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZON (f
Y22FLYCC 75+50	60" RCP Pipe Removal (SET)	х			785	618	1403	2
Y22FLYBD 82+61/84+16	54" RCP (SET)	х						37!
Y22RPDE 26+30/28+76	Borrow Site Excavation			х				(
Y22FLYBD 113+57/113+98	Widening HSB (SEH)	х			2133	1426	3559	
Y22 382+23/385+82	New Channel Tie In			х				13
Y22 395+85/397+04	54" RCP (SEK)	x			1507	377	1884	
Y22 403+56/405+39	60" CMP & 72" WSP (SEL)	x			2355	565	2920	
Y22_SEC2 473+60/474+66	36" RCP (SES)	x			2764	1099	3863	(
Y22RPDE 19+72/17+57	42" RCP (SES)	x						16
Y22RPDE 13+30	Borrow Site Excavation			х				(
Y22LPA 14+70/16+90	Roadway Fill (SDT)			х	551	405	956	
Y22FLYCC 121+30/121+90	Haul Road (SDQ)	Х			4000	2577	6577	
Y22RPB 23+54/25+28	Ex. Piers & Bridge Demolition		Х		4979	3158	8137	
Y22RPB 26+27	Ex. Piers & Bridge Demolition		Х		2495	3071	5566	
SHEET 1 SUBTOTALS					13360	10234	23594	513
SHEET 2 SUBTOTALS					109365	69644	179009	428

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TOTALS\*:

NOTES:

Site

No.

84

87

۲Y				P	ermit Drawing ast Revised on	Package 12/04/2023		
ACTS					BUE	FER		
	-			REPLAC	REPLACEMENT			
LOWABL	.E	N	VITTIGABLI	=				
ZONE 2	TOTAL	ZONE 1	ZONE 2	TOTAL	ZONE 1	ZONE 2		
$(ft^2)$	(ft <sup>2</sup> )	$(ft^2)$	$(ft^2)$	$(ft^2)$	$(ft^2)$	$(ft^2)$		
618	1403	213	969	1182				
		37554	25277	62831				
		0	721	721				
1426	3559							
		13251	880	14131				
377	1884							
565	2920							
1099	3863	0	397	397				
		16259	8963	25222				
		0	1075	1075				
405	956		857	857				
2577	6577							
3158	8137							
3071	5566							
10234	23594	513905	295720	809625	0	0		
69644	179009	428339	268480	696819	0	0		
93174	237468	1009521	603339	1612860	0 0	0		
NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS 03/04/2020 WAKE & JOHNSTON								
WBS NO. 37673.1.TA2								

OF

42

39

SHEET

		WETLAND	S IN BU	FFER IM
			WETLA BUFI	NDS IN FERS
SITE NO.	STATION (FROM/TO)	DESCRIPTION	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )
2	L 506+46/507+16	9'x 8' RCBC (SBP)	1396	3691
3	L 507+48/508+52	42" RCP (SBR)	4171	2863
4	L 508+26/511+89	Drain Pond PM	631	1726
6	L 511+56/512+37	Roadfill and ditch (SBU)	2384	283
7	L 515+57/515+94	Roadfill (SBR)	2008	2537
10	L 547+49/548+06	6'x8' RCBC (SBY)	650	681
11	L 558+64/559+60	9'x8' RCBC (SBX)	4324	2818
13	Y17RPC 17+84/22+90	Drain Pond PN	1729	159
14	L 608+20/611+17	10'x8' RCBC (SBX)	25393	12147
19	659+00/660+60	Bridge (SCG)	196	0
25	L 702+23/703+26	Drain Pond PV	3121	1106
26	696+93/702+59	Roadfill (SCL)	32328	15602
26	L 705+70/707+62	Roadfill Ditch (SCL)	13385	4752
26A	L 707+62/709+45	10'x8' RCBC (SCM)	19287	9113
31	L 736+24/736+62	Roadfill (SCQ)	5534	1171
32	L 735+32/736+61	2@ 9'x8' RCBC (SCP)	693	3339
35	L 782+01/784+39	9'x8' RCBC (SCT)	12459	2798
37	L 785+57/786+74	48" RCP (SCV)	10913	1451
TOTAL:			140602	66237

NOTE: Only Mitigable Buffers Impacts in Wetlands are calculated. Revised 2018 Feb

# PACTS SUMMARY

		Permit Drawi Last Revised	ng Package I on 02/24/20
NC DEPAI	RTMENT OF T	RANSPORTA	ATION
D	IVISION OF H	IGHWAYS	
	03/04/2	020	
	WAKE & JOH	INSTON	
	TIP NO. R-	2828	
SHEET	ивз NO. 376 40	73.1.1A2 OF	42

		WETLAND	S IN BU	FFER IN	IPACTS SUMMARY
			WETLANDS IN BUFFERS		
SITE NO.	STATION (FROM/TO)	Description	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	
41	812+81/827+66	Roadfill Ditch (SCY)	34	386	
41	828+33/838+25	Bridge (SCY)	0	0	
48	866+00/868+47	Bridge (SDG)	0	0	
50	875+63/876+59	14'x8' RCBC (SDJ)	15100	5744	
51	888+93/889+94	42" RCP (SDK)	0	0	
55	914+64/916+53	2@ 9'x9' RCBC (SDW)	10220	5534	
56	914+16/914+83	Roadway Fill (SDV)	275	634	
59A	Y22FLYCC 116+13/117+87	Roadfill (SDQ)	313	0	
74	Y22FLYCC 33+58/34+58	Roadfill (SDV)	232	0	
75	Y22FLYCC 36+14/38+48	Bridge	0	0	
76	919+00/929+36	Roadfill (SDO)	142	0	
TOTAL:			26316	12298	

NOTE: Only Mitigable Buffers Impacts in Wetlands are calculated.



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			TATION	
	02/24/2	NGHWAT3 2020		
	WAKE & JO	HNSTON		
	TIP NO. R	-2828		
	WBS NO. 376	73.1.TA2		
SHEET	41	OF	42	

# WETLANDS IN BUFFER IMPACTS SUMMARY

			WETLA BUFI	NDS IN FERS
SITE			ZONE 1	ZONE 2
NO.	STATION (FROM/TO)	Description	(ft <sup>2</sup> )	(ft <sup>2</sup> )
79	Y22FLYBD 82+61/84+16	54" RCP (SET)	2469	0
82	Y22FLYBD 113+57/113+98	Widening HSB (SEH )	0	0
92	Y22RPB 23+54/25+28	Ex. Piers & Bridge Demolition	1873	23
93	Y22RPB 26+27	Ex. Piers & Bridge Demolition	2	
TOTAL:			4344	23

NOTE: Only Mitigable Buffers Impacts in Wetlands are calculated.

Revised 2018 Feb

Permit Drawing Package
Last Revised on 12/13/22

NC DEPARTMENT OF TRANSPORTATION				
DIVISION OF HIGHWAYS				
03/04/2020				
WAKE & JOHNSTON				
TIP NO. R-2828				
WBS NO. 37673.1.TA2				
SHEET	42	OF	42	