



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

July 18, 2023

U.S. Army Corps of Engineers Charlotte Regulatory Field Office  
8430 University Executive Park Drive, Suite 615  
Charlotte, NC 28262

ATTN: Mr. Steve Brumagin, NCDOT Regulatory Coordinator

**Subject: Request for Modification to Individual Section 404 Permit and Section 401 Water Quality Certification** for U-2579 AA and AB, the Winston-Salem Northern Beltway (Eastern Section of Future I-74), from US 311 to I-40; Federal Aid Project No. NHF-0918(14), Division 9. Debit \$570 from WBS No. 34839.3.GV5.

**References: Section 404 and 401 Individual Permit Application** requested October 2, 2017, for Winston Salem Northern Beltway from I-40 to US 52 (R-2247B Phase 2, CA, CB, CD, D, EA, EB, and EC), from US 52 to US 311 North (U-2579C Phase 2, D, D, and F), and from I-40 Business to US 311 South (U-2579AA and AB).

- Modification Application for U-2579D, E, F / U-2579C Phase 2, dated January 7, 2019.
- Modification Application for R-2247EB, dated June 26, 2019.
- Modification Application for U-2579D, E, and F, dated October 17, 2019.
- Modification Application for U-2579D, E, and F, dated November 4, 2020.
- Modification Application for U-2579AB, dated December 2, 2020.
- Modification Application for U-2579AB noise wall addition and U-2579AA, dated November 23, 2021
- Modification Application for U-2579AB temporary access dated February 28, 2023
- Modification Application for U-2579AA dated March 24, 2023

**Section 404 Individual Permit** issued for the Winston Salem Northern Beltway from I-40 to US 52 (R-2247B Phase 2, CA, CB, CD, D, EA, EB, and EC), from US 52 to US 311 North (U2579C Phase 2, D, D, and F), and from I-40 Business to US 311 South (U-2579AA and AB), dated January 22, 2018 (**SAW-2017-02112**).

- Permit Modification for U-2579D, E, F / U-2579C Phase 2, dated March 4, 2019.
- Permit Modification for R-2247EB, dated August 13, 2019.
- Permit Modification for U-2579D, E and F, dated January 29, 2020.
- Permit Modification for U-2579D, E, and F, dated December 9, 2020.
- Permit Modification for U-2579AB, dated February 10, 2021.

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
DIVISION 9  
375 SILAS CREEK PARKWAY  
WINSTON SALEM, NC 27127

*Telephone:* (336) 747-7800  
*Fax:* (336) 703-6693  
*Customer Service:* 1-877-368-4968

*Location:*  
375 SILAS CREEK PARKWAY  
WINSTON-SALEM, NC 27127

*Website:* [ncdot.gov](http://ncdot.gov)

- Permit Modification for U-2579AB noise wall addition and U-2579AA, dated July 29, 2022
- Permit Modification for U-2579AB temporary access dated March 9, 2023.
- Permit Modification for U-2579AA dated May 3, 2023.

**Section 401 Water Quality Certification** issued November 14, 2017 (**WQC004131**), for the Winston Salem Northern Beltway from I-40 to US 52 (R-2247B Phase 2, CA, CB, CD, D, EA, EB, and EC), from US 52 to US 311 North (U-2579C Phase 2, D, D, and F), and from I-40 Business to US 311 South (U-2579AA and AB); Revision 2 dated December 21, 2017; Revision 3 dated February 7, 2019; and Revision 4 dated August 13, 2019; Revision 5 dated November 14, 2019; Revision 6, dated November 30, 2020; Revision 7, dated February 9, 2021; Revision 8, dated January 10, 2022; Revision 9, dated March 9, 2023; Revision 10, dated April 27, 2023.

Dear Sir:

The purposes of this modification are as follows:

1. To account for mitigation required in the permit modification for U2579AA and U-2579AB in the USACE permit issued July 29, 2022
2. To revise Permit site 2 on U-2579AB

#### Mitigation Requirements in USACE permit issued July 29, 2022

The USACE permit modification issued on July 29, 2022 needs to account for additional mitigation on U-2579AA and AB. Those mitigation totals are detailed below:

- Section AB modification for the Noise Wall should require 15 linear feet of stream mitigation and 0.02 ac of wetland mitigation.
- Section AA based upon final design and modifications at that time should have required 1.56 ac wetland mitigation for roadway, 0.06 ac wetland mitigation for utilities, and 2,042 linear feet of stream mitigation. There was no requirement for mitigation associated with the open water impacts associated with this modification of Section AA.

Therefore, a grand total of required mitigation for the July 29, 2022, Corps permit modification approval should require 2,057 linear feet of stream mitigation and 1.64 ac of wetland mitigation. Mitigation for these impacts is required at a 2:1 ratio.

#### Revisions at Permit Site 2

I have included copies of the revised plan sheet and pictures of the existing site. The additional impacts site 2 are as follows:

The original plans showed impacts at site 2 for the replacement of an existing 36" RCP with a longer 36" RCP under Kernersville Road. It also allowed for an energy dissipator at the outlet of the 36" RCP. Additionally, it showed a temporary detour of Kernersville Road that resulted in 76 linear feet of temporary impacts at the site. Due to the excessive erosion that has taken place at this site prior to start of construction, restoring the temporary stream impacts are no longer reasonably feasible. The stream channel is in an erosional gully that ranges from 10' to 20' in depth. If the

detour pipe was removed when it was no longer needed for the detour purpose, we would not be able to restore the channel in a stable manner. This is because slopes at 2:1 or flatter would result in going beyond NCDOT ROW impacting aerial utility lines and impacting residential property. If the pipe is left in place, we believe that we would be able to ensure long term stability of the stream and the adjacent property. With this revision, the bank stabilization and temporary impacts are no longer needed. Revised impacts are shown in Table 1.

**Table 1\*: Impact Revisions at permit site 2 on U-2579AB in the Yadkin River Basin.**

Site	Stream ID	Stream Type (I/P)	Impact Type	REVISED Permanent Impacts (linear feet)	REVISED Temporary Impacts (linear feet)	ADDITIONAL Impacts Requiring USACE Mitigation
2	ESE-S8	P	36" Corrugated Steel Pipe	<del>51</del> 139	0	88
			Energy Dissipator Basin	<del>20</del> 22	0	2
			Bank Stabilization	14 0	0	0
			Detour	0	<del>76</del> 0	0
<b>Total ADDITIONAL Impacts Requiring USACE Mitigation</b>						<b>90</b>

\*This table shows how the impacts and mitigation requirements were revised at U-2579AB site 2 since permit application dated November 23, 2021.

The revisions at site 2 will result in a need for an additional 90 linear feet of impacts (revising the total of mitigable impacts at site 2 from 71 linear feet to 161 linear feet). In the DMS letter dated September 29, 2017, they agreed to provide mitigation for 30,834' linear feet of impacts in the Yadkin River Basin. Table 9 from the November 20, 2020 permit modification for U-2579AB and U-2579AA has been edited below to show the linear feet of impacts required as edited by this permit modification request. Since we have a running credit in the Yadkin River Basin, the 2017 DMS letter will not be revised.

**Table 9\*: Stream Mitigation by River Basin**

River Basin	Previously Permitted Impacts Mitigated (linear feet)	Impacts for which Mitigation is Requested in this Modification Application (linear feet)	Running Totals (linear feet)
Yadkin	<del>23,232</del> 25,289	<del>2,057</del> 90	<del>25,289</del> 25,379
Roanoke	7,319	0	7,319
<b>Cumulative Total</b>	<del>30,551</del> <b>32,608</b>	<del>2,057</del> <b>90</b>	<del>32,608</del> <b>32,698</b>

\*This table shows how the stream mitigation requirements have been revised due to the changes at U-2579AB permit site 2 for the phased IP since the permit application dated November 23, 2021.

There will be no additional impacts to threatened or endangered species because of the revisions. There will also be no impacts to Section 106 resources.

### Regulatory Approvals

Section 404: We are hereby requesting modification to the USACE Individual 404 Permit (SAW-2017-02112), for the above-described activities for Section U-2579AB.

Section 401: We are hereby requesting a modification to the 401 Water Quality Certification (WQC004131) from the NCDWR for Section U-2579AB. We believe this work is permissible under an Infield modification with no fee requirement as there is no DWR required mitigation. However, if a fee is required, please debit WBS no. 34839.3.GV5.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact me at (336) 747-7802 or [aeuliss@ncdot.gov](mailto:aeuliss@ncdot.gov).

Sincerely,



Amy Euliss  
NCDOT Division 9 PDEA Engineer

Attachments: Current plan sheet for site 2 with revisions  
Revised Impact summary sheet  
Pictures of site 2 at the start of construction  
DMS letter from 2017



ROY COOPER  
Governor

September 29, 2017

Mr. Philip S. Harris III, P.E., CPM  
Natural Environment Section, PDEA  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: DMS Mitigation Acceptance Letter: **U-2579 / R-2247**, Winston-Salem Northern Beltway - from South of I-40 Southwest of the City to I-74 / US 311 Southeast of the City, Forsyth County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the stream and wetland mitigation for the subject project. Based on the information supplied by you on September 28, 2017, the stream and wetland impacts are located in CU 03040101 of the Yadkin River basin and 03010103 of the Roanoke River basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Stream & Wetlands	River Basin	CU Location	Eco-Region	Stream			Wetlands		
				Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh
Impacts	Yadkin	03040101	CP	0	0	30,834.0	4.79	0	0
Impacts	Roanoke	03010103	CP	0	0	6,414.0	1.14	0	0

\*Some of the stream and wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

These impacts and associated mitigation needs were under projected by the NCDOT in the 2017 impact data. DMS will commit to implement sufficient compensatory stream and riparian wetland mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-707-8420.

Sincerely,

James B. Stanfill  
DMS Credit Management Supervisor

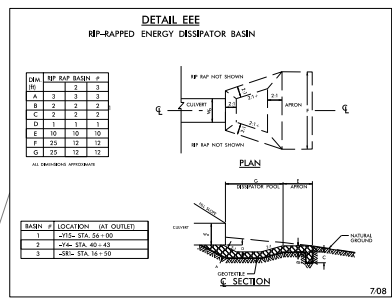
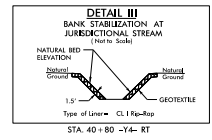
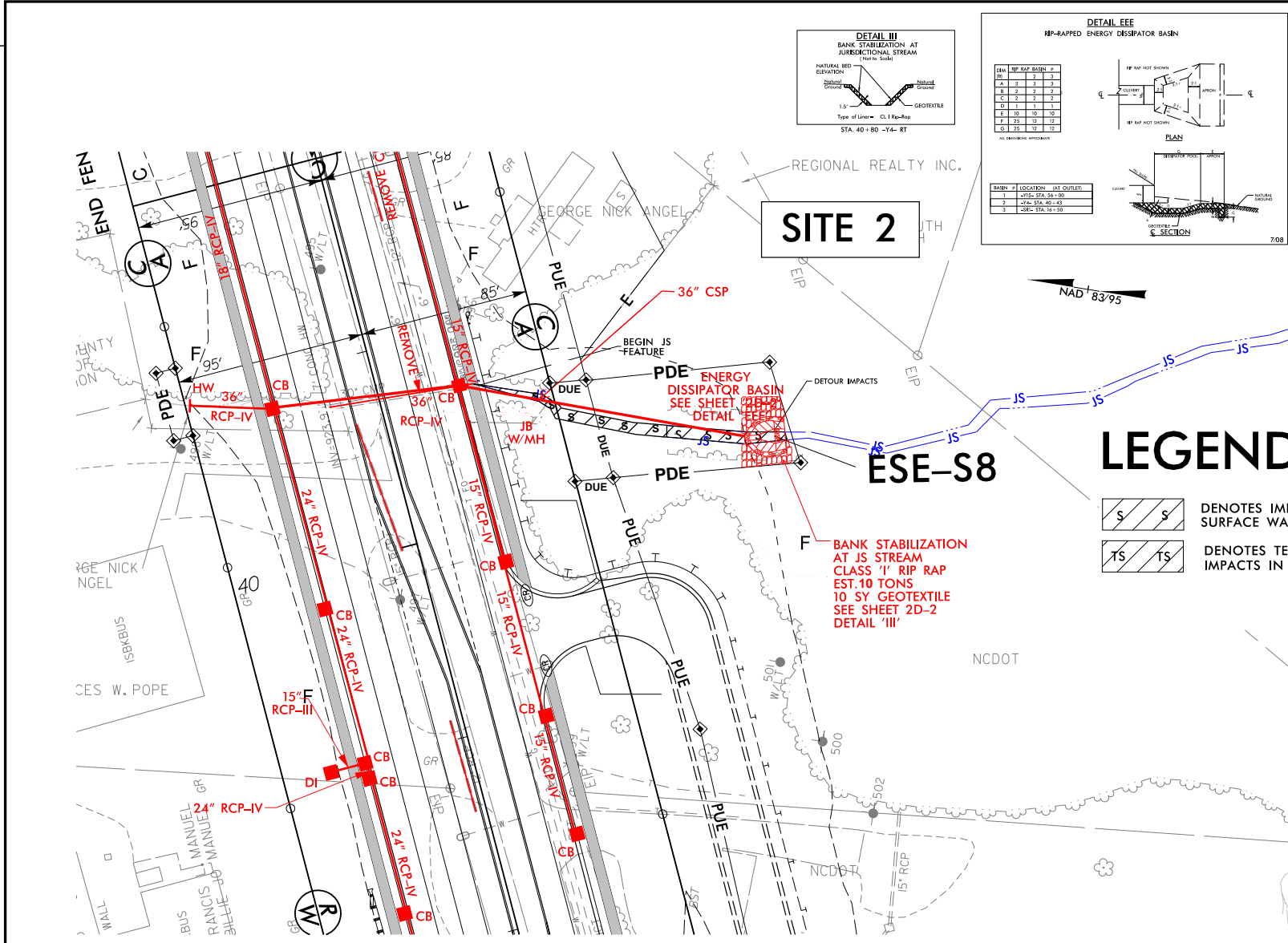
Cc: Mr. James Lastinger, USACE - Raleigh Regulatory Field Office  
Ms. Amy Chapman, NC Division of Water Resources - Raleigh  
File: U-2579 / R-2247





PLOT: DRIVEN, NCDOT, pdf, color, eps, 100dpi  
 USER: INNOVAC  
 DATE: 10/5/2020  
 TIME: 11:56:23 AM  
 FILE: NCDOT\NCDOT-U257948\GeoCAD\BMA\2\work\_in\_progress\U257948\hydraulics\PERMITS\_Env\formen\at\Drawings\U257948\_PRRM\_PSI.dgn

REVISIONS



PROJECT REFERENCE NO. <b>U-257948</b>	SHEET NO. <b>6B</b>
RDW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**INCOMPLETE PLANS**  
DO NOT USE FOR ANY ACQUISITION

**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED

**HDR** HDR Engineering, Inc. of the Carolinas  
555 Fayetteville St., Suite 900 Raleigh, NC 27601  
N.C.B.E.L.S., License Number: F-01116

1/2" = 1'-0"  
GRAPHIC SCALE

**LEGEND:**

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**PERMIT DRAWING**  
**SHEET 5 OF 78**

**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	Y4RPB 20+29 RT	30" RCP-III						0.09	< 0.01	48		
1	Y4RPB 20+29 RT	4' BASE DITCH						0.10	< 0.01	76	18	
2	Y4 40+43 RT	36" CSP						< 0.01		<del>139</del> <del>51</del>		
2	Y4 40+43 RT	ENERGY DISSIPATOR BASIN						< 0.01		<del>22</del> <del>20</del>		
2	Y4 40+43 RT	BANK STABILIZATION						< 0.01		<del>0</del> <del>14</del>		
2	Y4 40+43 RT	DETOUR							0.01		<del>0</del> <del>76</del>	
3	L 746+02 RT	54" RCP-IV						0.10	< 0.01	137	12	
4	L 748+64 - 750+76 LT	ROADWAY FILL						0.01		74		
4A	L 750+02 - 753+80 LT	ROADWAY FILL	0.13									
4B	L 748+64 - 750+76 LT	FILL IN POND						0.89				
5	L 755+00 - 758+02 LT	PIPE REM./ PROP. DITCH						< 0.01	< 0.01	28	32	
5A	L 758+02 LT	PIPE REM./ PROP. DITCH				< 0.01						
6	L 768+62	2 @ 12' x 10' RCBC						0.13		589		
6	L 768+62	INLET CHANNEL FLOODPLAIN BENCH						< 0.01	0.01	26	41	
6	L 768+62	OUTLET CHANNEL PROTECTION						0.02	0.03	81	88	
6A	L 764+50 LT	ROADWAY FILL	0.03									
6B	L 760+00 LT	36" RCP SEGMENT REPLACEMENT /CLEAN							< 0.01		19	
7	Y15FLYBD	54" RCP						0.02		92		
7	Y15FLYBD	4' BASE DITCH						< 0.01	< 0.01	84	10	
7	Y15FLYBD	RIPRAP PAD						< 0.01	< 0.01	16	25	
7A	Y15FLYBD	54" RCP-IV	0.36									
8	L 781+44	42" RCP-III						0.05	< 0.01	444		
8	L 781+44	BANK STABILIZATION						< 0.01	< 0.01	17	10	
<b>TOTALS*:</b>			0.51			< 0.01		1.44	0.07	<del>1797</del>	<del>331</del>	

\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 10/19/2020  
 FORSYTH COUNTY  
 U-2579AB  
 34839.1.8  
 SHEET 75 OF 78