



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

August 28, 2018

US Army Corps of Engineers  
Regulatory Field Office  
69 Darlington Ave.  
Wilmington, NC 28403

Attention: Mr. Brad Shaver  
NCDOT Coordinator

Subject: Revised Application for USACE General Permit 31 and Section 401 Water Quality Certification, for the proposed improvement of NC 211 from west of NC 906 (Midway Rd.) to east of NC 87 in Brunswick County. TIP No. R-5021. WBS 41582.1.1.

Reference: NCDOT permit application dated July 23, 2018.

Dear Sir:

As you are aware, the North Carolina Department of Transportation (NCDOT) is proposing to widen NC 211 between west of NC 906 (Midway Rd.) to east of NC 87 in Brunswick County. The following responses and revisions are based on comments and corrections from the agencies on the permit application:

**Permit Drawings:**

- Permit Drawing Sheets 5 and 6, Site 2: Detail BBBB for Sta. 64+15 to 71+26 RT (encompasses Site 2) has been added to Sheets 5 and 6 to match the proposed ditch depth shown on cross section 70+50.00 (Sheet 7).
- Permit Drawing Sheets 5 and 6, Site 3: A 2 ft. ditch was not evaluated for drainage effect at this site. Therefore, an additional 0.11 acre of wetland excavation impact is now shown on the drawing and in the impact summary to account for the drainage effect from ditching.
- Permit Drawing Sheets 18 and 19: Detail G (lateral base ditch) has been added to the drawing.
- Permit Drawing Sheets 38 and 61: invert 'out' originally shown as invert 'in' has been corrected.
- Impact summary: A line has been added in the impact summary to Site 15 to account for the indirect total take impacts in the table separately. Site 42 was left off the impact summary in the original application; it has now been added to the table. This correction adds <0.01 acre of wetland excavation impacts.

**Utility Drawings:**

- Sheet UE-06, Site 2: some of the temporary wetland impacts at this site are already accounted for as permanent roadway impacts; therefore, temporary staging area impacts have decreased 0.03 acre, from 0.07 to 0.04. The drawing and utility impact summary have been updated.
- Sheet UE-10: The bore pit shown in the wetlands is part of the roadway footprint and will not be shown as an impact on the utility drawings

If you have any additional questions or concerns, please contact Amy James at 919-707-6129 or [ajames10@ncdot.gov](mailto:ajames10@ncdot.gov), or Mason Herndon at 910-341-2036 or [tmherndon@ncdot.gov](mailto:tmherndon@ncdot.gov).

Sincerely,



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

cc:

NCDOT Permit Application Standard Distribution List.



ROY COOPER  
Governor

August 27, 2018

Mr. Philip S. Harris, P.E., PLS  
Environmental Analysis Unit  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: Mitigation Acceptance Letter:

**R-5021, NC 211 from SR 1500 (Midway Road) to NC 87, Brunswick 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 August 27, 2018, impacts are located in CU 03030005 of the Cape Fear River basin and CU 03040207 of the Lumber River basin in the Southern Outer Coastal Plain (SOCP) Eco-Region, and are as follows:

Stream and Wetlands	River Basin	CU Location	Eco-Region	Stream			Wetlands		
				Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh
Impacts	Cape Fear	03030005	SOCP	0	0	825.0	1.60	12.1	0
Impacts	Lumber	03040207	SOCP	0	0	306.0	1.60	3.90	0

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

**This mitigation acceptance letter replaces the mitigation acceptance letter issued July 5, 2018.** The impacts and associated mitigation needs were under projected by the NCDOT in the 2018 impact data. DMS commits to implement sufficient compensatory stream and 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 Asset Management Supervisor

Cc: Mr. Monte Matthews, USACE – Raleigh Regulatory Field Office  
Ms. Amy Chapman, NC Division of Water Resources  
File: R-5021 Revised



5/14/19

PROJECT REFERENCE NO.	SHEET NO.
R-5021	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

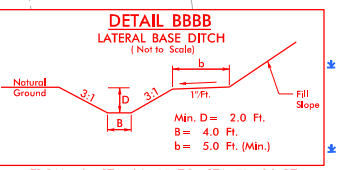
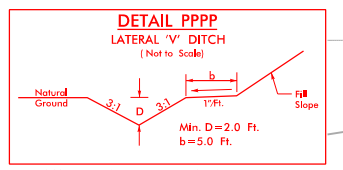
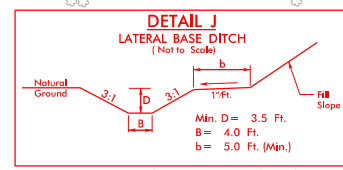
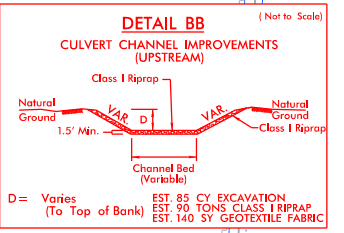
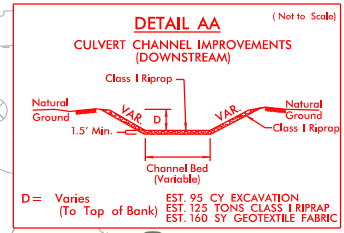
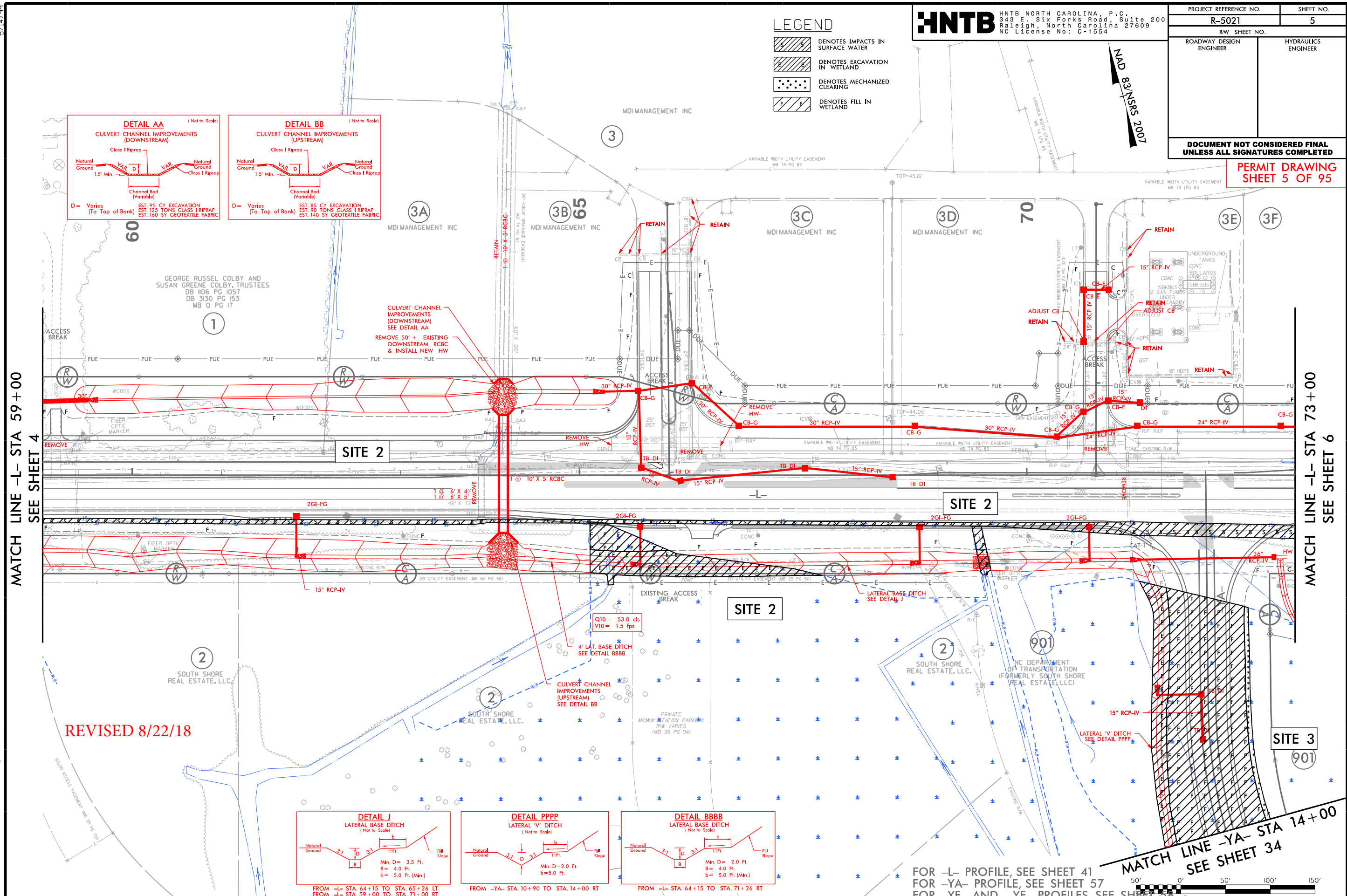
**LEGEND**

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



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

**PERMIT DRAWING SHEET 5 OF 95**



MATCH LINE -L- STA 59+00 SEE SHEET 4

MATCH LINE -L- STA 73+00 SEE SHEET 6

REVISED 8/22/18

MATCH LINE -YA- STA 14+00 SEE SHEET 34

FOR -L- PROFILE, SEE SHEET 41  
 FOR -YA- PROFILE, SEE SHEET 57  
 FOR -YE- AND -YF- PROFILES, SEE SHEET 2B-1  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR EMERGENCY MEDIAN CROSSOVER DETAIL, SEE SHEET 2C-1

**NOTE:**  
 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
 2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

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5/14/19 8/22/2018 8/22/2018 HYD\_PERMIT\_DRAWINGS\_PSH5.6 of 95.dgn

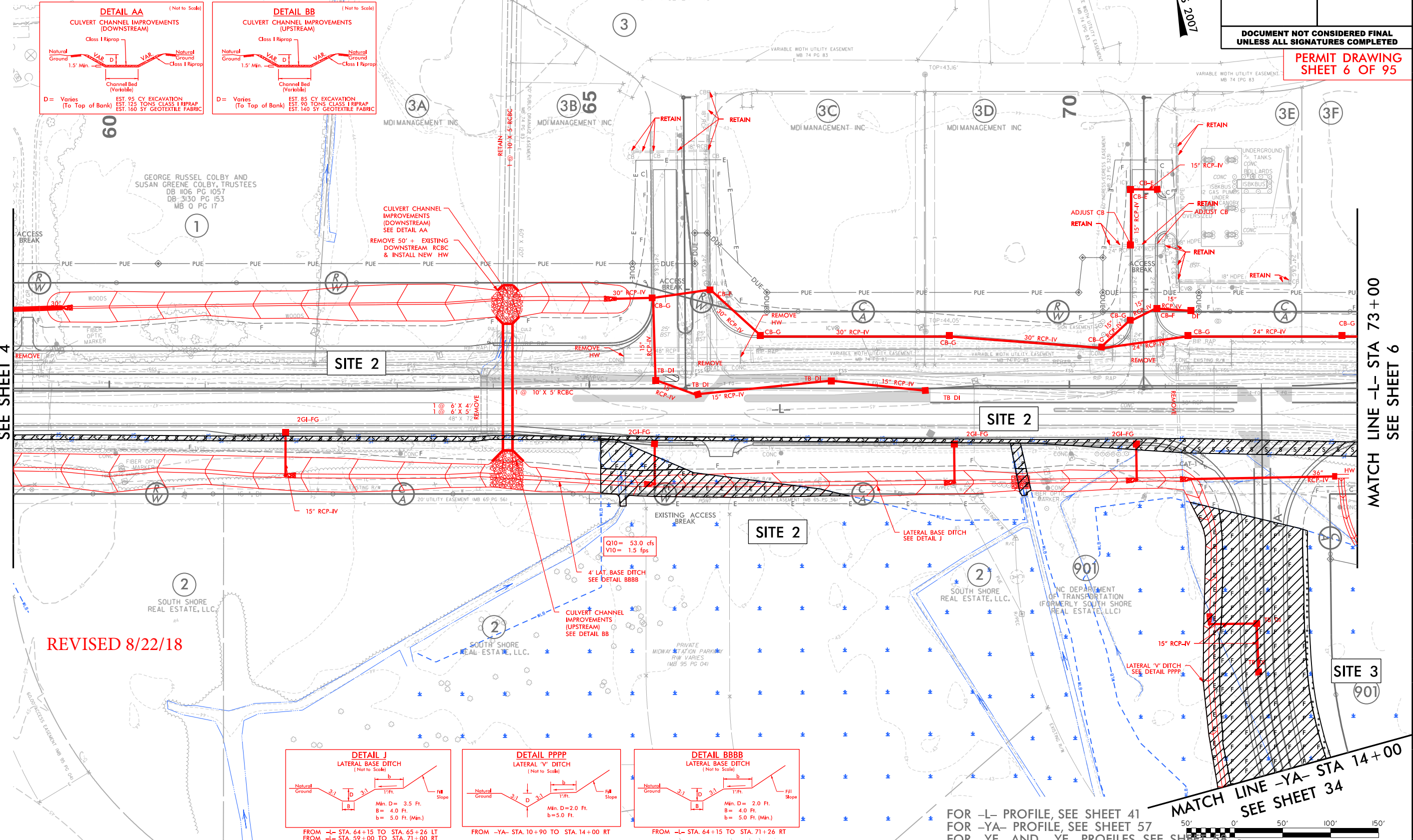
PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>5</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING  
SHEET 6 OF 95

**LEGEND**

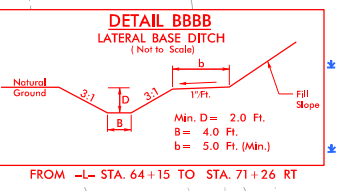
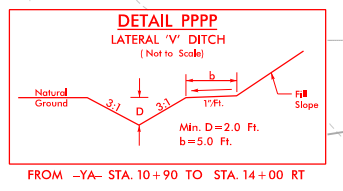
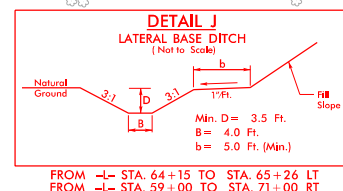
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND
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- DENOTES FILL IN WETLAND



MATCH LINE -L- STA 59+00  
SEE SHEET 4

MATCH LINE -L- STA 73+00  
SEE SHEET 6

REVISED 8/22/18



FOR -L- PROFILE, SEE SHEET 41  
 FOR -YA- PROFILE, SEE SHEET 57  
 FOR -YE- AND -YF- PROFILES, SEE SHEET 58  
 FOR -YE- DIRECTIONAL CROSSOVER DETAIL, SEE SHEET 2B-1  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR EMERGENCY MEDIAN CROSSOVER DETAIL, SEE SHEET 2C-1

GRAPHIC SCALE  
0' 50' 100' 150'

**NOTE:**  
 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
 2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.



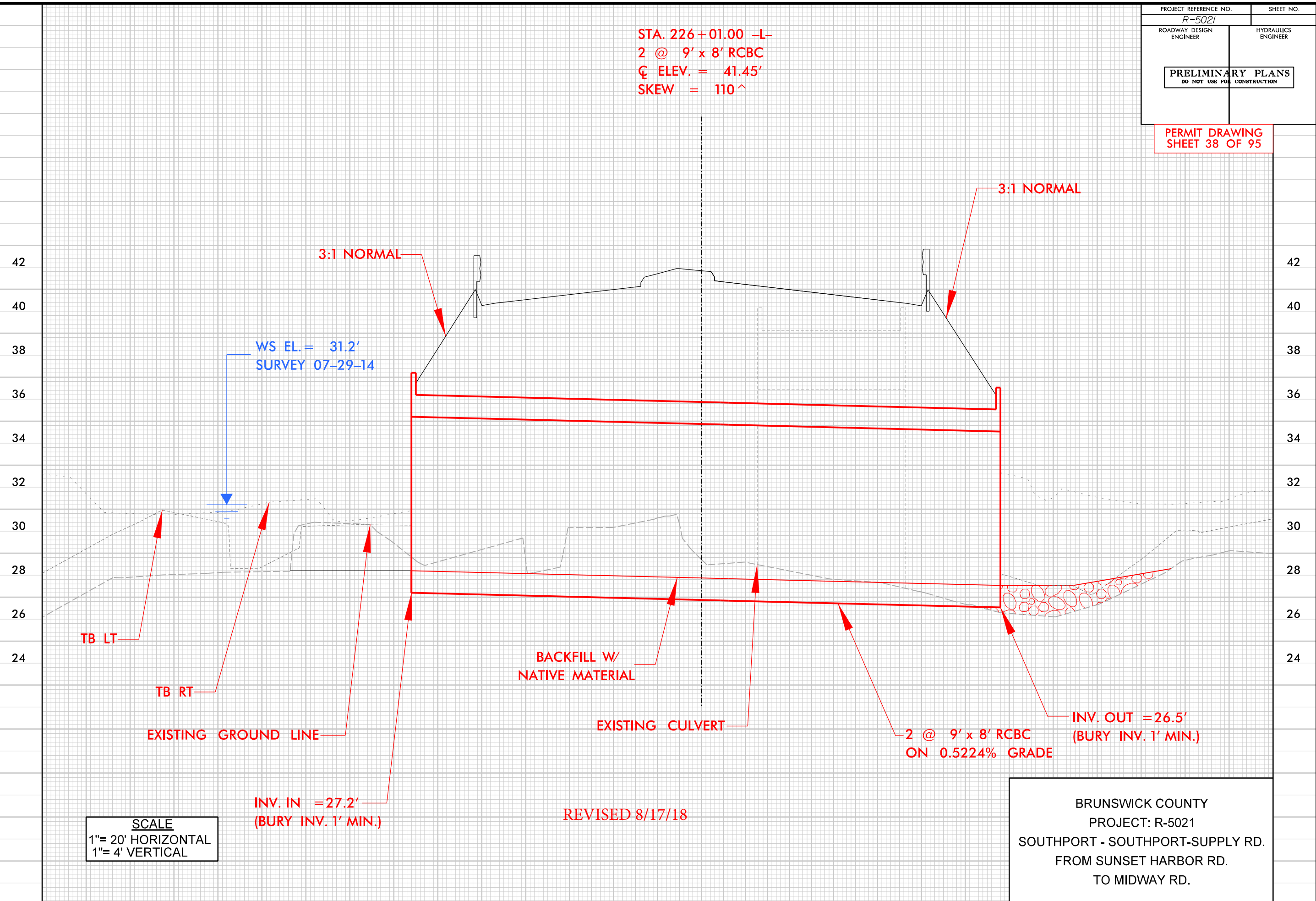




PROJECT REFERENCE NO. R-5021	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING  
SHEET 38 OF 95

STA. 226+01.00 -L-  
2 @ 9' x 8' RCBC  
Ç ELEV. = 41.45'  
SKEW = 110^



**SCALE**  
1" = 20' HORIZONTAL  
1" = 4' VERTICAL

REVISED 8/17/18

BRUNSWICK COUNTY  
PROJECT: R-5021  
SOUTHPORT - SOUTHPORT-SUPPLY RD.  
FROM SUNSET HARBOR RD.  
TO MIDWAY RD.

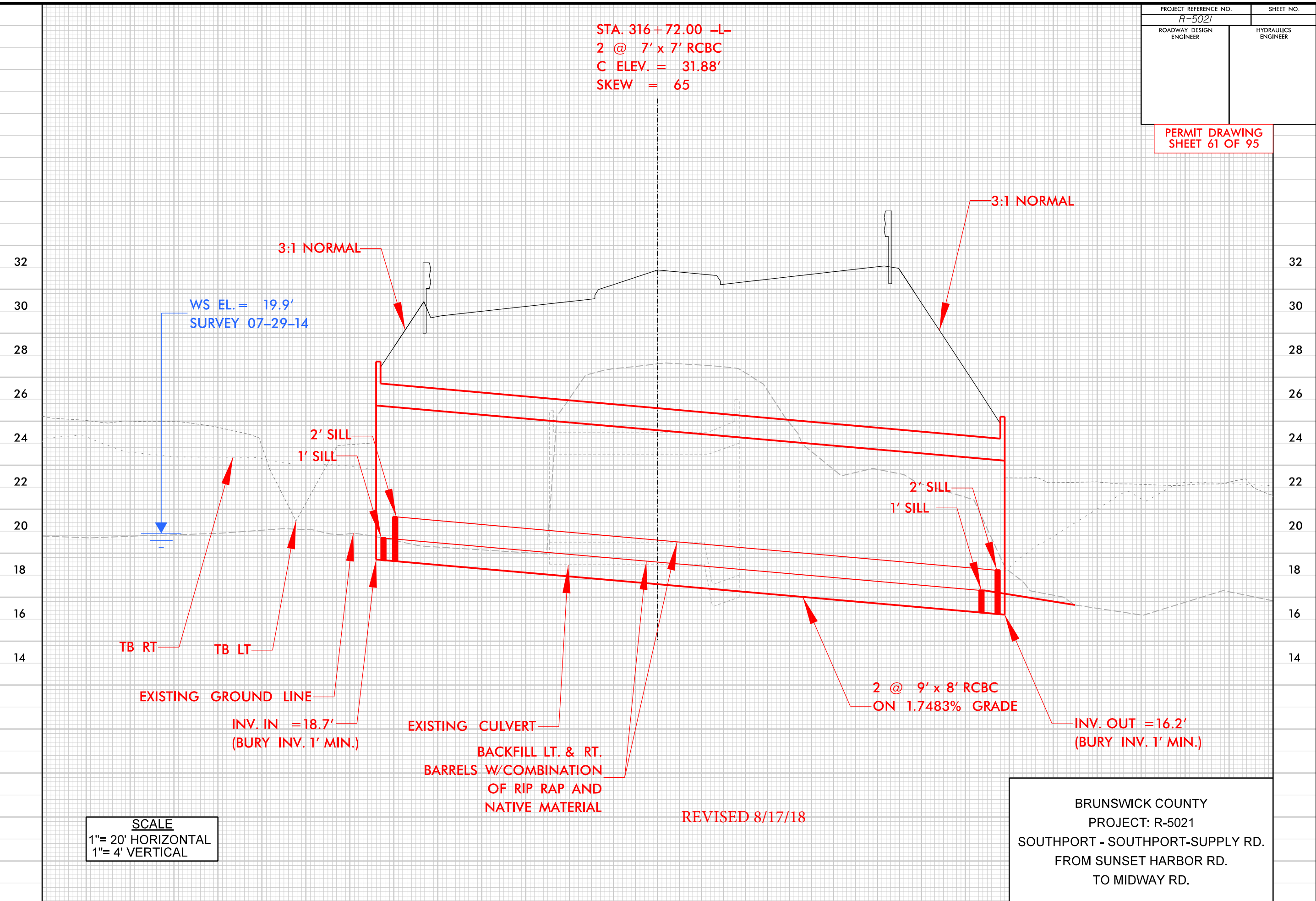
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PROJECT REFERENCE NO. <i>R-5021</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING  
SHEET 61 OF 95

STA. 316+72.00 -L-  
2 @ 7' x 7' RCBC  
C ELEV. = 31.88'  
SKEW = 65



SCALE  
1" = 20' HORIZONTAL  
1" = 4' VERTICAL

REVISED 8/17/18

BRUNSWICK COUNTY  
PROJECT: R-5021  
SOUTHPORT - SOUTHPORT-SUPPLY RD.  
FROM SUNSET HARBOR RD.  
TO MIDWAY RD.

5/14/99  
8/17/2018  
R-5021-HYD-PERMIT-DRAWINGS\_PSH23.61 of 95\_Cul\_PFL.dgn

**WETLAND AND SURFACE WATER IMPACTS SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 55+39 - 57+85 RT	4' Base Ditch			0.17							
2	-L- 57+22 - 75+36 RT	Roadway Fill						0.29				
2	-L- 65+12 - 69+60 RT	Base Ditch / Roadway Fill	0.04		0.12							
3	-YA- 11+18 - 14+70 RT/LT	Base Ditch / Roadway Fill / 15" RCP	0.67		0.24	0.03						
4	-YREV- 38+47 - 48+34 LT	15" & 48" RCP / Roadway Fill	0.91			0.07						
4	-L- 81+78 - 86+05 RT	Special Cut Ditch			0.21							
5	-L- 85+22 - 86+44 LT	15" RCP / Roadway Fill	0.08			0.02						
5	-L- 83+55 - 83+84 LT	2 @ 8' X 6' RCBC						0.02	< 0.01	82	14	
5	-YB- 16+72 - 19+00 LT	Roadway Fill	0.08			0.02						
6	-L- 100+43 - 100+73 LT	36" RCP						0.01	< 0.01	91	9	
6	-L- 100+78 - 103+67 LT	Roadway Fill	0.15			0.03						
7	-L- 106+05 - 107+32 LT	36" RCP						0.41	< 0.01	133	13	
9	-L- 113+86 - 126+79 LT	Roadway Fill	1.19			0.15						
10	-L- 126+92 - 144+52 LT	Roadway Fill	0.98			0.27						
11	-L- 200+46 - 205+16 RT	Roadway Fill	0.10			0.05						
12	-L- 211+66 - 214+04 LT	60" X 38" HERCP / Roadway Fill (Pond)						0.24	0.14			
13	-L- 216+73 - 218+28 LT	54" RCP						0.03	< 0.01	153	19	
13	-L- 216+76 - 217+92 LT	Roadway Fill / 4' Lateral Base Ditch	0.04		0.02							
14	-L- 216+53 - 216+82 RT	54" RCP						< 0.01	< 0.01	16	15	
14	-L- 215+99 - 217+82 RT	Roadway Fill / Lateral 'V' Ditch	0.05		< 0.01	< 0.01						
15	-L- 222+97 - 223+54 LT	Roadway Fill / 'V' Ditch	0.02		0.02							
15	-L- 222+97 - 223+54 LT	Indirect Impacts - Total Take	0.04									
16	-L- 225+77 - 226+44 LT	2 @ 9' X 8' RCBC						0.04	< 0.01	150	10	
16	-L- 225+21 - 227+48 LT	Roadway Fill / Var. Width Base Ditch	0.30		< 0.01	0.02						
17	-L- 225+59 - 225+92 RT	2 @ 9' X 8' RCBC						0.03	< 0.01	59	10	
17	-L- 222+60 - 226+73 RT	4' Base Ditch	0.02		0.13	0.01						
<b>SUBTOTALS*:</b>			<b>4.66</b>		<b>0.93</b>	<b>0.68</b>		<b>1.08</b>	<b>0.16</b>	<b>684</b>	<b>90</b>	

\*Rounded totals are sum of actual impacts

NOTES: Site 1: The Total Site Impact of 0.17 acres includes 0.10 acres of drainage effect from ditching.  
 Site 3: The Total Site Impact of 0.24 acres includes 0.11 acres of drainage effect from ditching.  
 Site 8: This Site has been eliminated.  
 Site 15: Total Site Impact of 0.08 acres includes 0.04 acres of direct impacts and 0.04 acres of indirect impacts. Total Take impacts 1:1 mitigation.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 8/21/2018  
 Brunswick County  
 R-5021

**WETLAND AND SURFACE WATER IMPACTS SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
18	-L- 237+79 - 242+95 LT	Roadway Fill	0.54			0.04						
19	-L- 245+23 - 275+27 LT	Roadway Fill	5.35			0.30						
20	-L- 275+51 - 286+64 LT	Roadway Fill	2.21			0.12						
21	-L- 271+43 - 275+91 RT	4' Base Ditch			0.08							
22	-L- 278+65 - 283+16 RT	4' Base Ditch			0.09							
23	-L- 289+94 - 304+98 LT	Roadway Fill	2.56			0.17						
24	-L- 313+81 - 314+96 RT	6' Base Ditch (Pond)						0.06				
25	-L- 315+96 - 316+63 LT	2 @ 7' X 7' RCBC						0.01	<0.01	85	24	
25A	-L- 316+38 - 317+38 LT	Roadway Fill						0.01		107		
26	-L- 316+52 - 317+84 RT	2 @ 7' X 7' RCBC						0.02	<0.01	116	24	
42	-L- 324+23 - 324.26 LT	2' Base Ditch			<0.01							
28	-L- 353+34 - 353+73 RT	Special 'V' Ditch / 3' base Ditch	0.01			0.04						
29	-L- 366+77 - 369+06 LT	Roadway Fill	0.28			0.07	0.02					
30	-L- 370+03 - 375+93 LT	Roadway Fill / Var. Base Ditch	0.49		<0.01	0.07						
31	-L- 369+37 - 369+59 RT	Bank Stabilization						<0.01	<0.01	18	29	
32	-L- 370+83 - 370+94 RT	Roadway Fill	<0.01			<0.01						
34	-L- 428+24 - 428+68 LT	66" RCP						0.03	<0.01	73	8	
35	-YB- 11+41 - 13+72 LT	Roadway Fill						0.07	<0.01			
36	-YREV- 9+47 - 9+77 RT	3' Base Ditch			<0.01							
37	-Y14D- 19+91 - 20+15 LT	Special 'V' Ditch						<0.01	<0.01			
37	-Y14A- 52+57 - 59+22 RT	2 @ 60" RCP EXT. / Roadway Fill	0.22			0.05		0.31	<0.01			
38	-Y14A- 55+80 - 66+12 LT	2 @ 60" RCP EXT. / Roadway Fill	0.06		<0.01	0.03		0.29	<0.01			
39	-Y14A- 64+77 - 66+24 RT	Roadway Fill	0.01			0.02						
40	-Y22- 23+04 - 23+21 RT	54" RCP						0.01	<0.01	26	10	
41	-Y22- 23+17 - 23+32 LT	54" RCP						0.01	<0.01	40	10	
42	-L- 324+23 - 324+26 LT	2' Base Ditch			<0.01							
SUBTOTALS*:					0.18	0.90	0.02	0.83	0.04	465	105	
FINAL TOTALS*:			11.72		1.11	1.59	0.02	1.91	0.20	1149	195	

\*Rounded totals are sum of actual impacts

NOTES: Site 27: This Site has been eliminated.  
Site 33: This Site has been eliminated.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
8/21/2018  
Brunswick County  
R-5021





**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	-L- 66+34.66 RT (Sheet UE-05)	Hand Hole	<0.01									
2	-L- 85+09.00 to -L- 86+09.00 RT (Sheet UE-06)	Staging Area		0.04								
3	-L- 161+45.80 RT (Sheet UE-12)	Hand Hole	<0.01									
4	-L- 176+61.17 RT (Sheet UE-13)	Hand Hole	<0.01									
5	-L- 178+50 to -L- 179+50 RT (Sheet UE-13)	Water Line			0.03							
6	-L- 192+10.26 RT (Sheet UE-14)	Hand Hole	<0.01									
7	-L- 201+48.42 RT (Sheet UE-15)	Power Pole	<0.01									
8	-L- 201+54.98 RT (Sheet UE-15)	Hand Hole	<0.01									
9	-L- 203+74.13 RT (Sheet UE-15)	Hand Hole	<0.01									
10	-L- 204+56.36 RT (Sheet UE-15)	Power Pole	<0.01									
11	-L- 204+69.62 RT (Sheet UE-15)	Power Pole	<0.01									
12	-L- 224+23.88 RT	Power Pole	<0.01									

	(Sheet UE-16)											
13	-L- 225+95.94 RT	Hand Hole	<0.01									
	(Sheet UE-16)											
14	-L- 250+99 to 251+46 RT	Water Line			0.01							
	(Sheet UE-18)											
15	-L- 254+74.74 to -L- 254+84.74 LT	PNG Bore Pit		<0.01	<0.01							
	(Sheet UE-18)											
16	-L- 268+83.69 to -L- 268+93.69 LT	PNG Bore Pit		<0.01	<0.01							
	(Sheet UE-19)											
17	-L- 272+33.48 RT	Hand Hole	<0.01									
	(Sheet UE-20)											
18	-L- 274+18.12 RT	Hand Hole	<0.01									
	(Sheet UE-20)											
19	-L- 293+71.35 LT	Hand Hole	<0.01									
	(Sheet UE-21)											
20	-L- 304+01.84 to -L- 304+11.84 LT	PNG Bore Pit		<0.01	<0.01							
	(Sheet UE-22)											
21	-L- 368+96.43 LT	Hand Hole	<0.01									
	(Sheet UE-27)											
22	-L- 372+57.91 to -L- 372+67.91 LT	PNG Bore Pit		<0.01	<0.01							
	(Sheet UE-27)											
23	-L- 372+81 to -L- 372+90 LT	Water Line			<0.01							
	(Sheet UE-27)											
24	-L- 373+14 to -L- 373+36 LT	Water Line			<0.01							
	(Sheet UE-27)											
TOTALS:			0.01	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note : 50 sq. ft. (Each) bore pit excavation = 75 sq. ft. (Each) temporary fill in the wetlands  
Total : 200 sq. ft. bore pit excavation = 300 sq. ft. temporary fill in wetlands

**REVISED 8/20/18**

Note : 1754 sq. ft. temporary fill in the wetlands from staging area = 0.04 ac

Note : 4 sq. ft. (Each) = 0.0001 ac (Each) permanent impact in the wetlands from pole installation.  
Total: 16 sq. ft

Note : 12.5 sq. ft. (Each) = 0.0003 ac (Each) permanent fill in the wetlands from hand hole installation.  
Total: 137.5 sq. ft

Note : 2365.73 sq. ft. excavation in wetlands for water line.

**REVISED 8/20/18**

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
BRUNSWICK COUNTY  
TIP PROJECT (R-5021)