

**WETLAND PERMIT IMPACT SUMMARY - DESIGN SECTION 1**

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	-DR1- 11+55 -Y111- 21+50 -L- 140+00	(2) 84" RCP-III 10'X8' RCBC							0.09		621	
		BANK STABILIZATION						0.01	<0.01	164	21	
2	-Y111- 13+00	FILL IN WETLANDS	0.14			0.06						
3	-L- 152+40 -Y113- 22+53	30" RCP-III 42" RCP-III						0.01	<0.01	130	10	
		BANK STABILIZATION						<0.01	<0.01	24	21	
4	-Y114- 32+67 -R674- 16+15 -R574- 35+41 -L- 175+72 -R174- 29+50	10'X7' RCBC						0.06	<0.01	666	2	
		BANK STABILIZATION						0.02	<0.01	194	20	
5	SR16 11+50	60" RCP	0.05			0.02		0.02		114		
		BANK STABILIZATION							<0.01		12	
6	Y112 27+50 RT	FILL IN WETLANDS	0.04			0.04						
7	-SR2- 17+00 -L- 198+00	FILL IN WETLANDS	0.24			0.04						
		FILL IN WETLANDS	0.64									
SUBTOTAL DESIGN SECTION 1:			1.12	0.00	0.00	0.17	0.00	0.22	0.01	1913	86	

\*Rounded totals are the sum of actual impacts

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

UNION COUNTY  
WBS - 34533.5.TA1 (R-3329/2559)

WETLAND PERMIT IMPACT SUMMARY - DESIGN SECTION 2A												
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)
8	-L- 261+00	42" PIPE	<0.01		0.02	0.01		0.01		382		
9	-L- 265+40	(2) 9'X7' RCBC	0.12			<0.01		0.03		391		
		BANK STABILIZATION					<0.01	0.01	26	60		
		UTILITY IMPACTS		0.03				0.01		69		
10	-L- 293+48	12'X6' RCBC						0.02		167		
		BANK STABILIZATION						0.01	<0.01	105	20	
11	-L- 297+50 LT	(3) 36" RCP										
		BANK STABILIZATION						<0.01		10		
12 <sup>1</sup>	-L- 374+00	7'X8' RCBC FILL IN POND						0.13		532		
		BANK STABILIZATION						0.01	<0.01	65	24	
13 <sup>2</sup>	-L- 376+00	FILL IN POND						0.08				
14	-L- 396+14	10'X6' RCBC	0.12			0.01		0.04		327		
	-L- 396+14	BANK STABILIZATION						0.01	<0.01	42	18	
	-L- 392+00 RT	ROADWAY FILL	<0.01			0.02						
15 <sup>3</sup>	-Y107- 50+00	FILL IN POND						0.13				
SUBTOTAL DESIGN SECTION 2A:			0.24	0.03	0.02	0.05	0.00	0.47	0.02	2037	201	

\*Rounded totals are the sum of actual impacts  
<sup>1</sup> 0.07ac of fill in surface water due to draining pond  
<sup>2</sup> 0.08ac of fill in surface water due to draining pond  
<sup>3</sup> 0.13ac of fill in surface water due to draining pond

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
  
 UNION COUNTY  
 WBS - 34533.5.TA1 (R-3329/2559)  
  
 SHEET 262 of 267 9/29/2014

WETLAND PERMIT IMPACT SUMMARY - DESIGN SECTION 2B												
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)
16	-L- 424+00	(3) 12'X8' RCBC								513		
		BANK STABILIZATION					0.01	<0.01	62	24		
17	-L- 432+98	(2) 66" RCP						0.03		429		
		BANK STABILIZATION					<0.01	<0.01	39	27		
18	-L- 479+00	(2) 42" RCP & 54" RCP	0.10		<0.01	<0.01		0.06		1163		
		BANK STABILIZATION					<0.01	<0.01	18	52		
19	-L- 511+70 LT	BRIDGE										
		BANK STABILIZATION						<0.01		26		
20	-L- 515+45	(2) 8'X8' RCBC						0.02		214		
		BANK STABILIZATION					<0.01	<0.01	51	20		
		UTILITY IMPACTS	0.02	0.04		0.01						
21	-L- 555+50	42" RCP	0.06									
22	-Y208- 20+65	42" RCP & RETAIN 24" RCP	0.01			0.01						
		BANK STABILIZATION					<0.01	<0.01	9	17		
23	-L- 586+33	12'X7' RCBC						0.04		408		
		BANK STABILIZATION					0.01	<0.01	122	20		
24	-L- 591+00	60" RCP						0.02		201		
		BANK STABILIZATION					<0.01	<0.01	32	20		
25	-L- 605+35	72" RCP						0.02		245		
		BANK STABILIZATION					<0.01	<0.01	40	21		
26	-L- 613+68	1@48", 2@36" RCP						0.02		189		
		BANK STABILIZATION					<0.01	<0.01	45	20		
27 <sup>1</sup>	-Y204- 13+50 LT	FILL IN POND						0.07				
SUBTOTAL DESIGN SECTION 2B:			0.19	0.04	0.00	0.02	0.00	0.39	0.02	3780	247	

\*Rounded totals are the sum of actual impacts  
<sup>1</sup> Surface Water Impact due to Rock Fill in Pond

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
  
 UNION COUNTY  
 WBS - 34533.5.TA1 (R-3329/2559)  
  
 SHEET 263 of 267 9/29/2014

WETLAND PERMIT IMPACT SUMMARY - DESIGN SECTION 2C												
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)
28	-L- 656+17 TO - 657+71 RT	36" RCP							<0.01		72	
		BANK STABILIZATION							<0.01	<0.01	62	10
29	-L- 669+50	3@9'X12' RCBC							0.09		241	
		BANK STABILIZATION							0.04	0.01	123	38
30	-L- 700+11 TO - 705+91	7'X7' RCBC							0.04	<0.01	375	33
		BANK STABILIZATION							0.02	<0.01	206	10
31	-L- 718+00	FILL IN WETLANDS	0.09									
32	-L- 738+80 RT	72" RCP & PIPE REMOVAL	0.02						0.01	<0.01	59	20
		BANK STABILIZATION							<0.01	<0.01	24	10
33	-L- 752+51 TO - 769+15 LT	FILL IN WETLANDS 30" RCP	1.61			0.28						
34	-L- 805+06 LT	15" RCP							<0.01	<0.01	13	10
35	-L- 805+89	10'X7' RCBC							0.01		185	
		BANK STABILIZATION							0.01	0.01	82	74
36	-L- 817+63	48" RCP	0.07						0.01		260	
		BANK STABILIZATION							<0.01	<0.01	16	10
37	-TLA- 13+07 - 15+68; -TRA- 22+00 LT	FILL IN WETLANDS 24" & 48" RCP	0.28			0.01			0.02		380	
38	-L- 841+00 LT & RT	60" RCP & 2 66" RCPs	0.57						0.06		1016	
		BANK STABILIZATION							0.01	<0.01	95	24
39 <sup>1</sup>	-L- 849+00 RT	FILL IN POND							0.22			
40 <sup>1</sup>	-L- 856+00 RT	FILL IN POND							0.90			
41 <sup>2</sup>	-L- 866+50	42" RCP							0.12		279	
		BANK STABILIZATION							<0.01	<0.01	34	10
42	-L- 890+87 TO -L- 893+14	FILL IN STREAM							0.03	<0.01	276	13
43	-L- 893+00	84" RCP	0.01			<0.01			0.05		299	11
		BANK STABILIZATION							0.01	<0.01	28	10
44	-L- 903+70	54" RCP	0.13			0.02			0.02		179	
		BANK STABILIZATION							<0.01	<0.01	18	10
45 <sup>1</sup>	-Y302- 152+00 RT	24" RCP							0.05			
SUBTOTAL DESIGN SECTION 2C:			2.78	0.00	0.00	0.31	0.00		1.73	0.04	4322	293

\*Rounded totals are the sum of actual impacts  
<sup>1</sup> Fill in surface water due to draining pond  
<sup>2</sup> 0.10ac of fill in surface water due to draining pond

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

UNION COUNTY  
WBS - 34533.5.TA1 (R-3329/2559)

SHEET 264 of 267 9/29/2014

**WETLAND PERMIT IMPACT SUMMARY - DESIGN SECTION 3A**

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)
46	-L-942+33 to 944+18	Bridge										
		Bank Stabilization						<0.01		38		
47	-L- 956+83 to 957+44	Bridge										
		Bank Stabilization						<0.01		43		
48	-Y306- 27+69 to 28+79 Rt	Roadway Fill	0.06	0.01		0.03						
	-Y306- 31+58 to 33+11 Rt	60" RCP						0.01		193		
49	-Y318- 16+03 to 15+65	9'x7' RCBC							<0.01		20	
		Bank Stabilization						<0.01		52		
50	-L- 973+14 to 980+36	9'x7' RCBC	0.06					0.09	<0.01	905	18	
	-L- 981+50 to 986+25 Lt	Roadway Fill	0.04									
51	-L- 1001+08 to 1003+00	66" RCP-III						0.02	<0.01	115	20	
		Bank Stabilization						<0.01		11		
52	-Y308- 34+43 to 31+75 Lt	Roadway Fill						0.86	<0.01	545	10	
53	-L- 1038+42	2@10'x6' RCBC						0.10		985		
		Bank Stabilization						0.02	<0.01	165	19	
		Utility Relocation							<0.01		41	
54	-L- 1055+58 to 1059+27	Bridge	0.01	0.52			0.78					
SUBTOTAL DESIGN SECTION 3A:			0.17	0.53	0.00	0.03	0.78	1.11	0.04	3052	128	0.00

\*Rounded totals are the sum of actual impacts

NOTE: Site #54 - Permanent Fill In Wetland Impacts due to the proposed bents is 453.6 square feet (0.01 acres) (included above).

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
  
 UNION COUNTY  
 WBS - 34533.5.TA1 (R-3329/R-2559)  
  
 SHEET 265 of 267 9/29/2014

WETLAND PERMIT IMPACT SUMMARY - DESIGN SECTION 3B												
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)
55	-L- 1074+23	7' x 7' RCBC						0.02		157		
		BANK STABILIZATION						0.01	0.01	80	39	
56 <sup>1</sup>	-Y309- 19+71	2@48" RCP	0.03		<0.01	<0.01						
		UTILITY IMPACTS		<0.01								
57	-L- 1096+08	2@42" RCP	0.19		0.02	0.06						
58	-L- 1122+50 Lt	FILL IN WETLANDS	0.02			0.01						
59	-Y310- 23+00 Rt	BANK STABILIZATION FOR 36" RCP						<0.01	<0.01	12	10	
60 <sup>2</sup>	-L- 1162+27	72" RCP, 10'x6' RCBC w/42" floodplain pipe	0.64		0.06	0.05		<0.01	<0.01	3	10	
61	-L- 1167+23	48" RCP	0.08			<0.01						
62 <sup>3</sup>	-L- 1201+62	Extend 2@7'x7' RCBC w/ 2@8'x8' RCBC	0.01			0.01		<0.01		37		
		BANK STABILIZATION						0.01	<0.01	102	20	
		UTILITY IMPACTS		0.03								
63	-Y314R- 25+85 Rt	30" RCP	0.04			0.02						
64 <sup>4</sup>	-Y315- 16+53 -Y316- 11+76 -Y314R-15+50 RT	48" RCP 2@48" RCP 36" STEEL	0.14		0.02	0.08						
		UTILITY IMPACTS	0.03	<0.01								
SUBTOTAL DESIGN SECTION 3B:			1.17	0.04	0.11	0.23	0.00	0.04	0.01	391	79	

\*Rounded totals are the sum of actual impacts

<sup>1</sup> Temporary fill impacts include excavation of utility trench and backfill as well as equipment crossing during construction

<sup>2</sup> Excavation in wetlands includes 1170.4 sf (0.03 ac) of temporary excavation for bypass channel during construction

<sup>3</sup> Temporary fill impacts include excavation of utility trench and backfill as well as equipment crossing during construction

<sup>4</sup> Temporary fill impacts include excavation of utility trench and backfill as well as equipment crossing during construction

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

UNION COUNTY  
WBS - 34533.5.TA1 (R-3329/2559)

