



Project Name: 1216 Rolesville Road

**DA SITE SUMMARY  
STORMWATER PRE-POST CALCULATIONS**

SITE SUMMARY											
<b>DRAINAGE AREA SUMMARIES</b>											
DRAINAGE AREA:	DA1	DA2	DA3	DA4	DA5	DA6	DA7	DA8	DA9	DA10	
<b>Pre-Development (1-year, 24-hour storm)</b>											
Runoff (in) = $Q_{pre,1-year}$ =	0.41	0.34									
Peak Flow (cfs) = $Q_{1-year}$ =	2.773	0.144									
<b>Post-Development (1-year, 24-hour storm)</b>											
Proposed Impervious Surface (acre) =	5.00	0.06									
Runoff (in) = $Q_{1-year}$ =	1.25	0.42									
Peak Flow (cfs) = $Q_{1-year}$ =	21.889	0.266									
Increase in volume per DA (ft <sup>3</sup> )_1-yr storm =	33,907	200									
Minimum Volume to be Managed for DA HIGH DENSITY REQUIREMENT = (ft <sup>3</sup> ) =	18,355	314									
<b>TARGET CURVE NUMBER (TCN)</b>											
Site Data											
SITE \SOIL COMPOSITION											
HYDROLOGIC SOIL GROUP				Site Area	%	Target CN					
A				0.00	0%	N/A					
B				8.45	72%	N/A					
C				2.96	25%	N/A					
D				0.37	3%	N/A					
Total Site Area (acres) =				11.78							
Percent BUA (Includes Existing Lakes/Pond Areas) =				43%							
Project Density =				High							
Target Curve Number (TCN) =				N/A							
$CN_{adjusted (1-year)}$ =				81							
Minimum Volume to be Managed (Total Site) Per TCN Requirement = ft <sup>3</sup> =				N/A							
Site Nitrogen Loading Data											
HSG	TN export coefficient (lbs/ac/yr)			Site Acreage				N Export			
Pasture	1.2			0.00				0.00			
Woods, Poor Condition	1.6			0.00				0.00			
Woods, Fair Condition	1.2			0.00				0.00			
Woods, Good Condition	0.8			0.27				0.22			
Open Space, Poor Condition	1.0			0.00				0.00			
Open Space, Fair Condition	0.8			0.00				0.00			
Open Space, Good Condition	0.6			6.45				3.87			
Reforestation (in dedicated OS)	0.6			0.00				0.00			
Impervious	21.2			5.06				107.27			
SITE NITROGEN LOADING RATE (lbs/ac/yr) =				9.45							
Nitrogen Load (lbs/yr) =				111.36							
TOTAL SITE NITROGEN TO MITIGATE (lbs/yr)_Wendell Only =				68.95							
Site Nitrogen Loading Data For Expansions Only											
				Existing				New			
Impervious(acres) =				NA				NA			
"Expansion Area" (acres) =											
Nitrogen Load (lbs/yr) =				NA				NA			
SITE NITROGEN LOADING RATE (lbs/ac/yr) =				NA				NA			
Total Site loading rate (lbs/ac/yr)											
<b>TOTAL SITE NITROGEN TO MITIGATE (lbs/yr) =</b>				NA							