

Short Version BMP Computations For Worksheets 2 - 6
 Albemarle County Water Protection Ordinance: Modified Simple Method

Plan: Airport Road Office Water Resources Area: Powell Creek

Preparer: CK Date: 17-Oct-08

Project Drainage Area Designation Development Area

L storm pollutant export in pounds, $L = [P(P)/Rv^{12}] [C(A)/2.72]$
Rv mean runoff coefficient, $Rv = 0.05 + 0.009(I)$
P small storm correction factor, 0.9
I percent imperviousness
A annual precipitation, 43" in Albemarle
C project area in acres in subject drainage area, **A = 5.02**
f pollutant concentration, mg/l or ppm target phosphorus
V factor applied to RR
RR required treatment volume in cy, 0.5" over imperv. area = $A(I)/43560(0.5/12)/27$
L(post) required removal, $L(post) = f \times L(pre)$
%RR removal efficiency, $RR/100(L(post))$

Impervious Cover Computation (values in feet & square feet)

Item	pre-development				post-development			
	Length	Width	subtotal	Area	Length	Width	subtotal	Area
Roads	0	0	0	0	0	0	0	0
Driveways and walks	0	0	0	0	0	0	0	0
Parking Lots	0	0	0	0	0	0	0	0
Gravel areas	0	0	0	0	0	0	0	0
Structures	0	0	0	0	0	0	0	0
Actively-grazed pasture & yards and cultivated turf	0	0	0	0	0	0	0	0
Active crop land	0	0	0	0	0	0	0	0
Other Impervious Areas	0	0	0	0	0	0	0	0
Impervious Cover	0%				55%			

Rv(pre)	V	L(post)
0.54	184.9	

New Development (For Development Areas, existing impervious cover <= 20%)

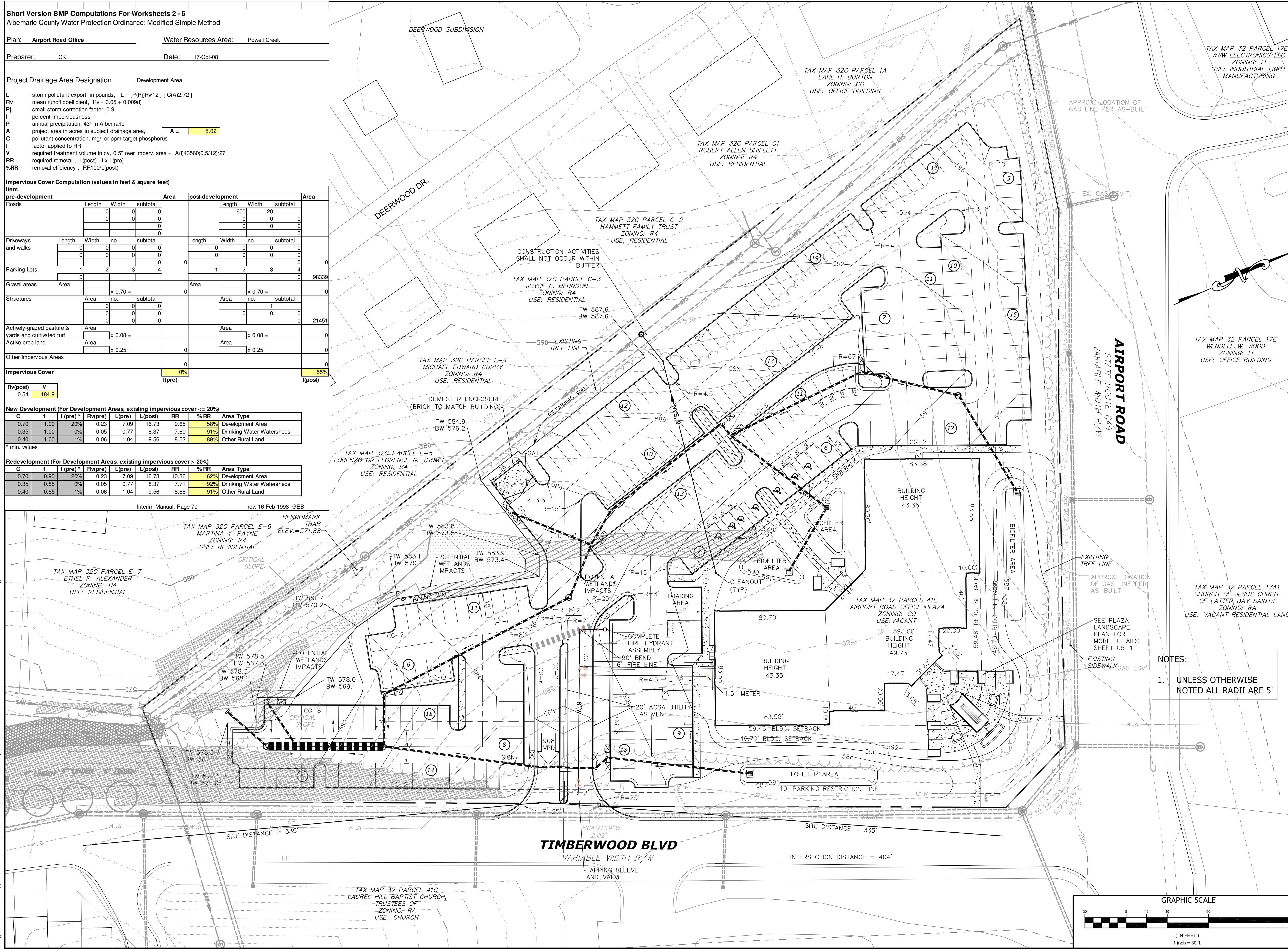
C	f	I (pre)	Rv(pre)	L(pre)	L(post)	RR	% RR	Area Type
0.70	1.00	20%	0.23	7.09	16.73	9.65	58%	Development Area
0.35	1.00	0%	0.05	0.77	8.37	7.60	91%	Drinking Water Watersheds
0.40	1.00	1%	0.06	1.04	9.56	8.52	89%	Other Rural Land

Redevelopment (For Development Areas, existing impervious cover > 20%)

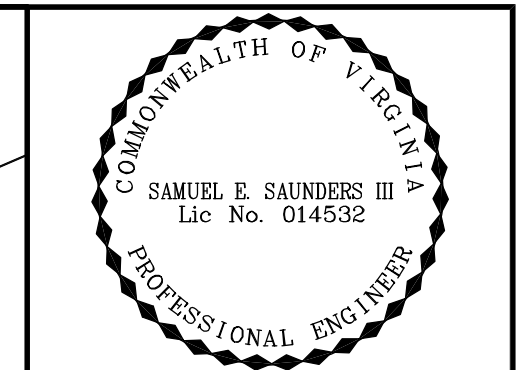
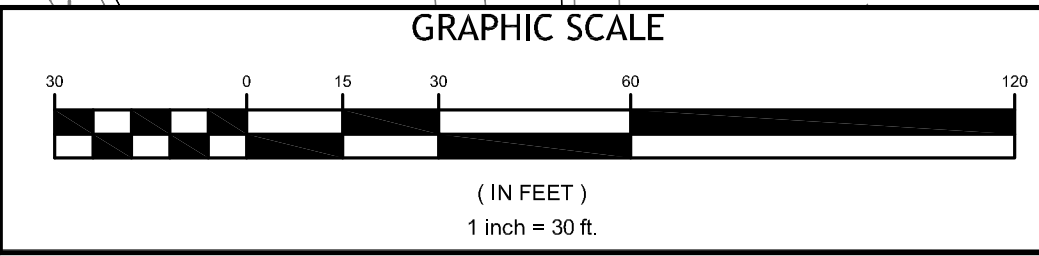
C	f	I (pre)	Rv(pre)	L(pre)	L(post)	RR	% RR	Area Type
0.70	0.90	20%	0.23	7.09	16.73	10.36	62%	Development Area
0.35	0.85	0%	0.05	0.77	8.37	7.71	92%	Drinking Water Watersheds
0.40	0.85	1%	0.06	1.04	9.56	8.68	91%	Other Rural Land

Interim Manual, Page 70 rev. 16 Feb 1998 GEB

Craig Kotarski - Tuesday, October 21, 2008 9:27:47 AM | R:\104124940 - Airport Rd Office Plaza\DWG\Sheet\Pre\m3\CONCEPTUAL PLAN.dwg



NOTES:
 1. UNLESS OTHERWISE NOTED ALL RADII ARE 5'



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YOUR VISION ACHIEVED THROUGH OURS.

DATE	REVISION DESCRIPTION
4-15-08	REVISED PER ARB COMMENTS
6-30-08	REVISED PER ARB COMMENTS
9-15-08	SUBMITTED TO COUNTY FOR REVIEW
10-20-08	REVISED PER ARB AND COUNTY COMMENTS

DRAWN BY: C. KOTARSKI
 DESIGNED BY: A. GEORGE
 CHECKED BY: S. SAUNDERS

SCALE: 1" = 30'

TIMMONS GROUP

AIRPORT ROAD OFFICE PLAZA
 RIO DISTRICT - ALBEMARLE - VIRGINIA
 SITE PLAN

JOB NO. 24940
 SHEET NO. C3

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