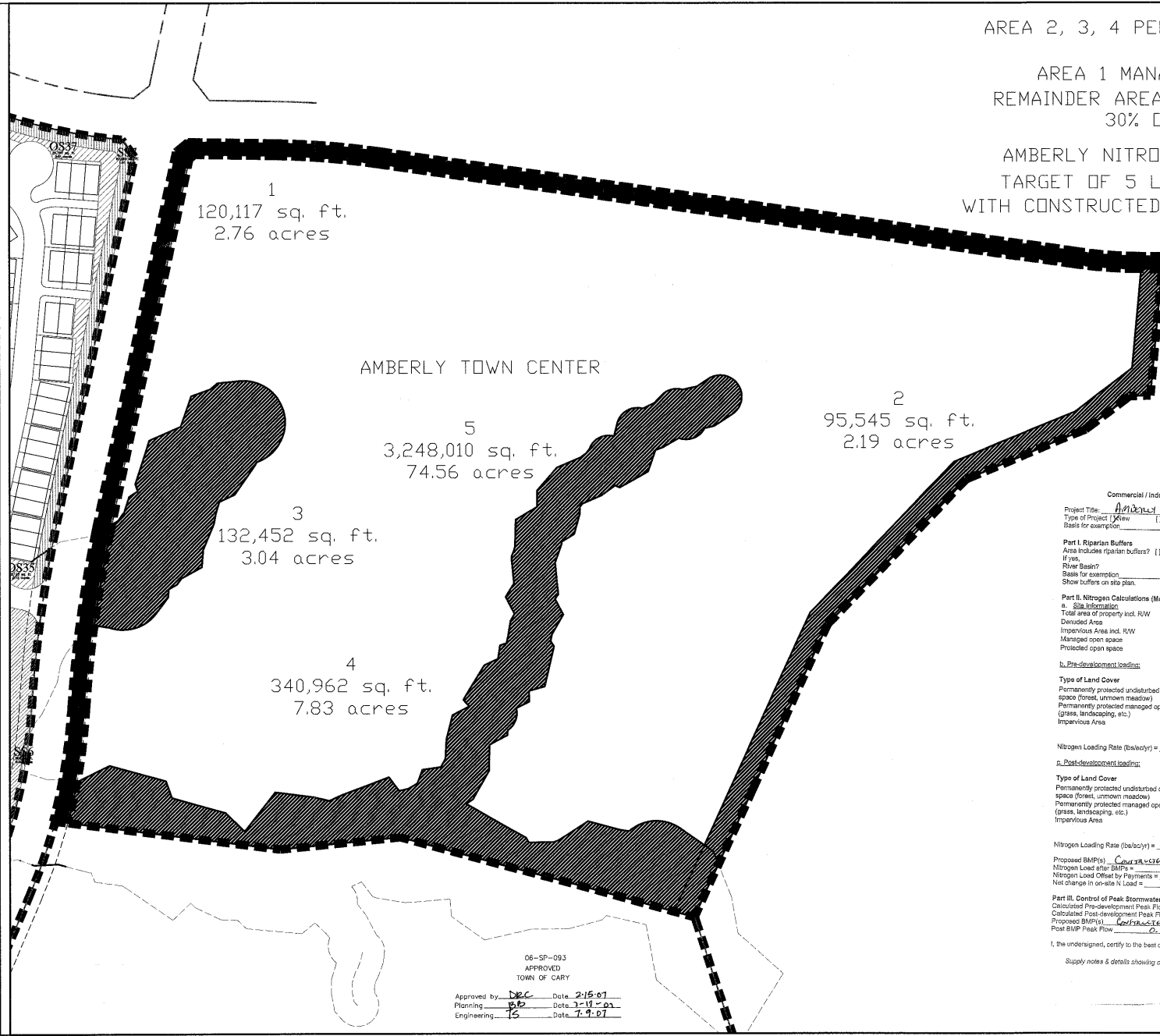


AREA 2, 3, 4 PERMANENTLY PROTECTED

AREA 1 MANAGED OPEN SPACE  
REMAINDER AREA AT 70% IMPERVIOUS,  
30% OPEN SPACE

AMBERLY NITROGEN CALCULATIONS  
TARGET OF 5 LBS / ACRE ACHIEVED  
WITH CONSTRUCTED WETLANDS AND BUFFERS.



1  
120,117 sq. ft.  
2.76 acres

AMBERLY TOWN CENTER

5  
3,248,010 sq. ft.  
74.56 acres

2  
95,545 sq. ft.  
2.19 acres

3  
132,452 sq. ft.  
3.04 acres

4  
340,962 sq. ft.  
7.83 acres

06-SP-093  
APPROVED  
TOWN OF CARY

Approved by: DB Date: 2-15-07  
Planning: DB Date: 7-17-07  
Engineering: TS Date: 7-9-07

Nitrogen Control Plan  
Commercial / Industrial Residential Sites with Known Impervious Area  
Project Title: Amberly Town Center  
Type of Project:  New  Expansion  Eminent  
Basis for exemption:

Part I. Riparian Buffers  
Area includes riparian buffers?  No  Yes  Exempt  
If yes:  200 foot  100 foot  
River Basin?  None  Other: Fear  
Basis for exemption:  
Show buffers on site plan.

Part II. Nitrogen Calculations (Method 2, Appendix C):  
a. Site Information  
Total area of property incl. RW: 74.5  
Developed Area: 40.3 Imperv. Area  
Impervious Area incl. RW: 40.3  
Managed open space: 21.2  
Protected open space: 13.0

b. Pre-development loading:

Type of Land Cover	Area (acres)	TN export coeff. (lb/acre/yr)	TN export from use (lb/yr)
Permanently protected undisturbed open space (forest, unowned meadow)		0.60	
Permanently protected managed open space (grass, landscaping, etc.)	74.5	1.20	89.4
Impervious Area		21.20	
<b>TOTAL</b>			<b>89.4</b>

Nitrogen Loading Rate (lb/acre/yr) = 1.2

c. Post-development loading:

Type of Land Cover	Area (acres)	TN export coeff. (lb/acre/yr)	TN export from use (lb/yr)
Permanently protected undisturbed open space (forest, unowned meadow)	13	0.60	7.8
Permanently protected managed open space (grass, landscaping, etc.)	21.2	1.20	25.44
Impervious Area	40.3	21.20	854.36
<b>TOTAL</b>			<b>887.60</b>

Nitrogen Loading Rate (lb/acre/yr) = 11.9

Proposed BMP(s): Constructed Wetlands, Buffers  
Nitrogen Load after BMPs = 5  
Nitrogen Load Offset by Payments = 4.2  
Net change in on-site N Load = -3.4

Part III. Control of Peak Stormwater Flow (for 1 year, design storm)  
Calculated Pre-development Peak Flow: 12  
Calculated Post-development Peak Flow: 24  
Proposed BMP(s): Constructed Wetlands  
Post BMP Peak Flow: 0.5 cfs

I, the undersigned, certify to the best of my knowledge that the above information is correct (affix seal).  
Supply notes & details showing control of Nitrogen and peak stormwater runoff. 06/2006



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AMBERLY TOWN CENTER  
Cary, NC  
GS Carolina  
4000...  
Raleigh, NC 27607

REVISIONS


PROJECT #: 06-0404 DATE: 06/07  
DRAWN BY: MB CHECKED BY: DB  
TITLE: NITROGEN CALCULATIONS  
SHEET: C4.0