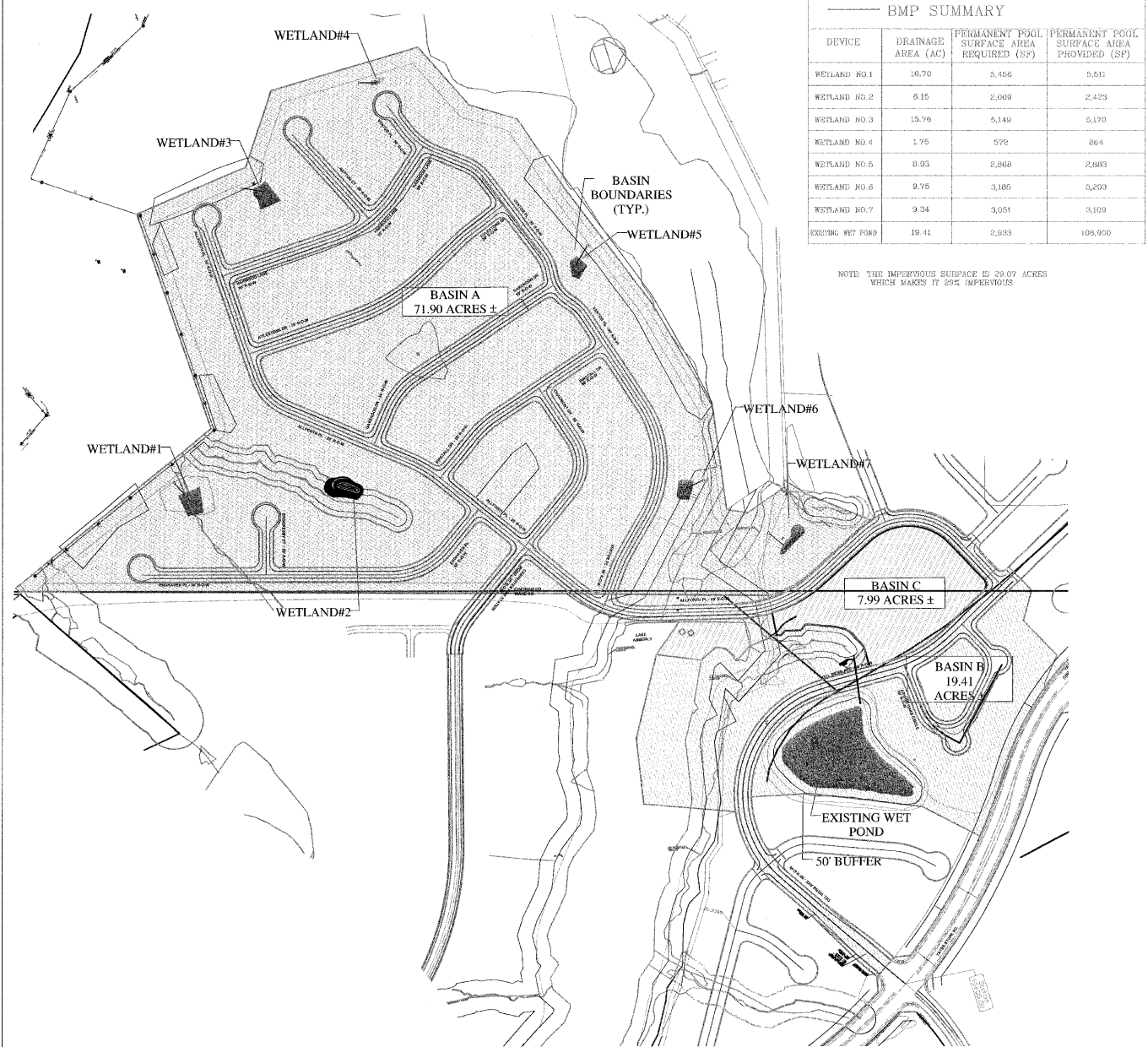


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BMP SUMMARY			
DEVICE	DRAINAGE AREA (AC)	PERMANENT POOL SURFACE AREA REQUIRED (SF)	PERMANENT POOL SURFACE AREA PROVIDED (SF)
WETLAND NO.1	10.70	5,456	5,511
WETLAND NO.2	8.15	2,009	2,423
WETLAND NO.3	15.76	5,149	5,170
WETLAND NO.4	1.75	572	864
WETLAND NO.5	8.03	2,868	2,883
WETLAND NO.6	9.75	3,185	3,203
WETLAND NO.7	9.34	3,051	3,109
EXISTING WET POND	19.41	2,853	108,900

NOTE: THE IMPERVIOUS SURFACE IS 29.07 ACRES WHICH MAKES IT 20% IMPERVIOUS

Nitrogen Control Plan
Residential Subdivisions with no known building footprints.

Project Title: Amberly AR Phase 1

Part I. Riparian Buffers
 Area includes riparian buffers? No Yes Stream
 River basin? 50 foot 100 foot 150 foot
 Basis for exemption: None 100 foot 150 foot
 Show buffers on site plan.

Part II. Nitrogen Calculations (Method 1, Appendix C)

A. Substation Information:

Total area of site (acres)	264	Average house size	2,100 sq ft
Number of lots	512	Permit of Right-of-Way (ft)	33
Number of lots / acre	1.92	Permit of Right-of-Way (ft)	33
Total area of lots (including driveway, etc.)	1,000	Total impervious area	21,000
Impervious Area	1,000		

B. Predevelopment Assumptions:

Type of Land Cover	Area (acres)	TN export coeff. (lb/acre/yr)	TN export from site (lb/yr)
Permanently protected undisturbed open space (forest, unimproved meadow)	31.33	0.00	0.00
Permanently protected managed open space (grass, landscaping, etc.)	0	1.20	0.00
Impervious Area	0	21.20	0.00
TOTAL	31.33		0.00

Nitrogen Loading Rate (lb/acre/yr) = 0.6

C. Post-Development Assumptions:

Type of Land Cover	Area (acres)	TN export coeff. (lb/acre/yr)	TN export from site (lb/yr)
Permanently protected undisturbed open space (forest, unimproved meadow)	14.03	0.00	0.00
Permanently protected managed open space (grass, landscaping, etc.)	18.26	1.20	21.91
Impervious Area	0	21.20	0.00
Loss (read TN export from Graph 2)	42.85		21.91
TOTAL	31.33		21.91

Nitrogen Loading Rate (lb/acre/yr) = 5.36

Proposed (MgN) wetland, wet ponds, buffer
 Nitrogen Load after BMPs = 2.35
 Nitrogen Load Offset by Plantings = 0.00
 Net change in on-site N Load = -2.35

Part III. Control of Peak Stormwater Flow (for 1 year, design storm)

Calculated Pre-development Peak Flow = 92.46 cfs
 Flow Control Method = all land
 Calculated Post-development Peak Flow = 26.25 cfs

I, the undersigned, certify to the best of my knowledge that the above information is correct (p/s/e/w/s).

Supply notes & details showing control of Nitrogen and peak stormwater runoff.

Nitrogen Control Plan
Commercial/Industrial/Residential Sites with known Impervious Area

Project Title: Amberly AR Rec Center (Basin C)

Part I. Riparian Buffers
 Area includes riparian buffers? No Yes Stream
 River basin? 50 foot 100 foot 150 foot
 Basis for exemption: None 100 foot 150 foot
 Show buffers on site plan.

Part II. Nitrogen Calculations (Method 2, Appendix C)

A. Site Information:

Total area of property incl. RWY	7.99
Developed Area	5.17
Impervious Area incl. RWY	4.27
Managed open space (grass, landscaping, etc.)	2.44
Protected open space	1.28

B. Predevelopment Assumptions:

Type of Land Cover	Area (acres)	TN export coeff. (lb/acre/yr)	TN export from site (lb/yr)
Permanently protected undisturbed open space (forest, unimproved meadow)	7.99	0.00	4.73
Permanently protected managed open space (grass, landscaping, etc.)	0	1.20	0.00
Impervious Area	0	21.20	0.00
TOTAL	7.99		4.73

Nitrogen Loading Rate (lb/acre/yr) = 3.6

C. Post-Development Assumptions:

Type of Land Cover	Area (acres)	TN export coeff. (lb/acre/yr)	TN export from site (lb/yr)
Permanently protected undisturbed open space (forest, unimproved meadow)	1.28	0.00	0.77
Permanently protected managed open space (grass, landscaping, etc.)	2.44	1.20	2.93
Impervious Area	4.27	21.20	90.92
TOTAL	7.99		94.62

Nitrogen Loading Rate (lb/acre/yr) = 11.72

Proposed (MgN) wetland, wet ponds, buffer, lake Amberly
 Nitrogen Load after BMPs = 5.36
 Nitrogen Load Offset by Plantings = 0.00
 Net change in on-site N Load = -5.36

Part III. Control of Peak Stormwater Flow (for 1 year, design storm)

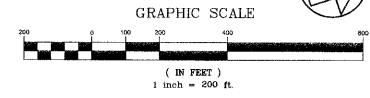
Calculated Pre-development Peak Flow = 2.42 cfs
 Flow Control Method = all land
 Calculated Post-development Peak Flow = 3.60 cfs

I, the undersigned, certify to the best of my knowledge that the above information is correct (p/s/e/w/s).

Supply notes & details showing control of Nitrogen and peak stormwater runoff.

04-SB-028
APPROVED
TOWN OF CARY

Approved by DRC Date 11/10/05
 Planning AC Date 11/10/05
 Engineering _____ Date _____



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RELEASED FOR CONSTRUCTION

Amberly AR Phase 1
 Cary, NC
 GS Carolina
 3412 I/2 Hillsborough St.
 Raleigh, NC 27607

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT #: 04-4036 DATE: 5/23/05
 DRAWN BY: RE CHECKED BY: DS
 TITLE: NITROGEN CONTROL PLAN
 SHEET: C4.0.0