



The Peninsula at Amberly
Yates Store Road - Cary, NC

11600 North Community Road, Suite 200
Charlotte, NC 28227

REVISIONS

1/24/04	REVISED PER TOC COMMENTS
2/23/04	REVISED PER TOC COMMENTS
4/20/04	REVISED PER TOC COMMENTS

PROJECT #: 03423 DATE: 11/20/03

DRAWN BY: SLS CHECKED BY: JBE

TITLE

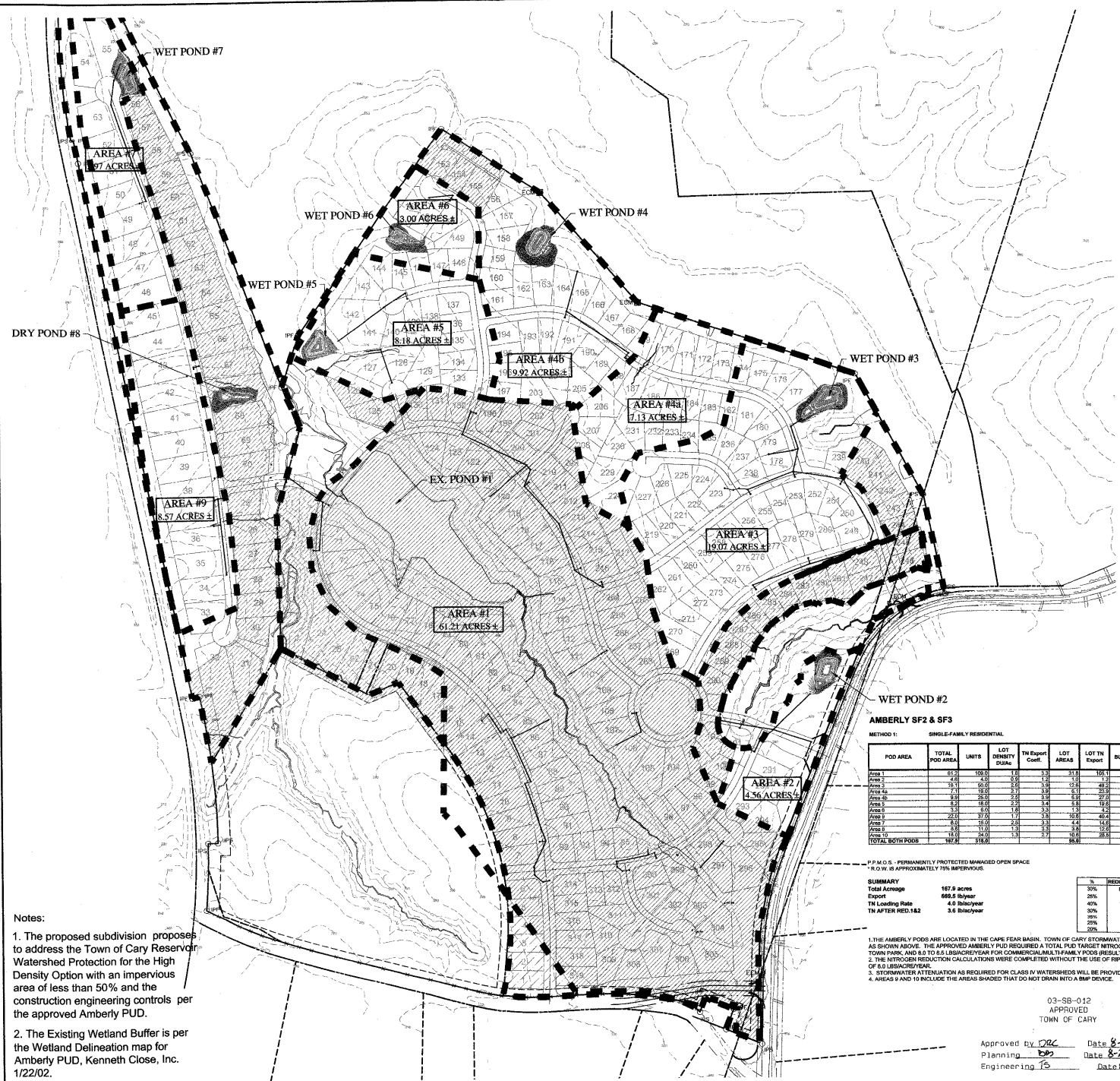
NITROGEN CONTROL PLAN

SHEET

C4.0

BMP SUMMARY		
DEVICE	DRAINAGE AREA	PERMANENT POOL DEVICE SURFACE AREA
EXISTING POND NO.1	61.21 AC	N/A
WET POND NO.2	4.56 AC	4,452 SF
WET POND NO.3	19.07 AC	9,950 SF
WET POND NO.4	9.92 AC	5,799 SF
WET POND NO.5	8.18 AC	3,790 SF
WET POND NO.6	3.30 AC	1,889 SF
WET POND NO.7	5.97 AC	3,988 SF
DRY POND NO.8	8.57 AC	N/A

AREAS WHERE NO BMP IS PROPOSED 



AMBERLY SF2 & SF3

METHOD 1: SINGLE-FAMILY RESIDENTIAL

POD AREA	TOTAL POD AREA	UNITS	LOT DENSITY DUMG	TN Export Coeff.	LOT AREAS	LOT TN Export	BUFFER	TN Export Coeff.	BUFFER TN Export	P.P.M.O.S. TN Export	TN Export Coeff.	P.P.M.O.S. TN Export	R.O.W. ¹	TN Export Coeff.	P.P.M.O.S. TN Export	TOTAL TN EXPORT	TN LOADING RATE	RED. METHOD ¹	TN AFTER RED. 1
Area 1	61.21	109.0	1.8	0.3	313	109.1	8.0	1.0	12.7	11.8	1.2	14.0	8.8	14.3	16.0	211.7	4.4	D	4.4
Area 2	4.56	4.0	0.9	1.0	1.7	1.7	1.2	1.2	1.3	1.2	1.1	1.2	1.5	1.5	1.5	6.3	6.3	D	2.9
Area 3	19.07	50.0	2.6	0.8	12.8	49.2	0.8	1.8	0.9	4.7	1.3	5.0	1.3	14.3	17.5	73.8	2.8	D	2.9
Area 4a	7.13	30.0	3.7	0.7	6.3	27.3	0.8	1.8	0.9	1.3	1.0	0.9	1.0	14.3	16.2	54.8	4.6	D	4.6
Area 4b	9.92	38.0	3.8	0.8	6.0	37.0	0.8	1.8	1.4	0.9	1.3	1.0	1.3	14.3	16.2	47.8	2.8	D	3.8
Area 5	8.18	35.0	3.4	0.9	5.0	34.0	0.8	1.8	1.2	0.9	1.3	1.0	1.3	14.3	16.2	37.8	4.6	D	3.4
Area 6	3.30	8.0	1.8	1.3	1.3	8.2	0.8	1.8	1.3	0.8	1.3	0.8	0.8	14.3	8.4	14.8	4.8	D	3.0
Area 7	5.97	17.0	2.9	0.8	10.8	16.8	0.8	1.8	1.2	1.0	1.3	1.0	1.3	14.3	16.2	32.8	5.4	D	4.1
Area 8	8.57	11.0	1.3	2.4	3.4	11.0	1.8	1.8	1.8	0.8	1.3	0.8	1.4	14.3	16.2	32.8	2.4	D	4.1
Area 9	18.0	34.0	1.9	0.7	10.8	33.8	0.8	1.8	1.8	0.8	1.3	0.8	1.4	14.3	16.2	46.8	3.8	D	2.2
TOTAL BOTH PODS	74.9	218.0	2.4	0.8	84.8	217.8	0.8	1.8	11.8	30.2	1.3	36.9	16.0	14.3	208.8	6.6	D	3.8	




¹ P.P.M.O.S. - PERMANENTLY PROTECTED MANAGED OPEN SPACE
² R.O.W. IS APPROXIMATELY 75% IMPERVIOUS.

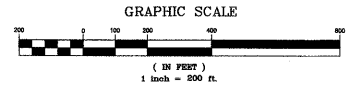
SUMMARY
Total Acreage: 167.8 acres
Export: 669.2 lb/year
TN Loading Rate: 4.0 lb/ac/year
TN AFTER RED. 1: 3.0 lb/ac/year

%	PRODUCTION METHOD SYMBOLS
10%	IR RIPARIAN BUFFER
20%	D WET DETENTION POND
40%	W WETLANDS
30%	O OPEN CHANNEL
20%	S SAND FILTERS
20%	B BIORETENTION
20%	V VEGETATED STRIPS W/ LEVEL SPREADER

- THE AMBERLY PODS ARE LOCATED IN THE CARY FEAR BASIN. TOWN OF CARY STORMWATER MANAGEMENT REQUIRES NITROGEN TO BE REDUCED TO THE "MAXIMUM EXTENT PRACTICABLE." AN EXAMPLE FOR COMPLIANCE IS AS SHOWN ABOVE. THE APPROVED AMBERLY PUD REQUIRED A TOTAL PUD TARGET NITROGEN EXPORT OF 6.0 LBS/ACRE/YEAR, AND INDIVIDUAL POD EXPORT LIMITS OF 3.0 LBS/ACRE/YEAR FOR RESIDENTIAL PODS AND THE TOWN PARK, AND 8.0 TO 8.5 LBS/ACRE/YEAR FOR COMMERCIAL/MULTI-FAMILY PODS (RESULTS IN PUD EXPORT OF 6.0 LBS/ACRE/YEAR).
- THE NITROGEN REDUCTION CALCULATIONS WERE COMPLETED WITHOUT THE USE OF RIPARIAN BUFFERS. SINCE THE REDUCTION OF NITROGEN THROUGH RIPARIAN BUFFERS IS CONSIDERED IN SETTING A PUD EXPORT LIMIT OF 6.0 LBS/ACRE/YEAR.
- STORMWATER ATTENUATION AS REQUIRED FOR CLASS IV WATERSHEDS WILL BE PROVIDED BY POD BMP'S. IN THE CASE OF AREAS 6, 7, AND 8, STORMWATER ATTENUATION WILL BE PROVIDED BY DRY DETENTION PONDS.
- AREAS 4 AND 10 INCLUDE THE AREAS SHAD THAT DO NOT DRAIN INTO A BMP DEVICE.

03-SB-012
APPROVED
TOWN OF CARY

Approved by:  Date: 8-2-04
Planning:  Date: 8-27-04
Engineering:  Date: 8-20-04



Notes:

- The proposed subdivision proposes to address the Town of Cary Reservoir Watershed Protection for the High Density Option with an impervious area of less than 50% and the construction engineering controls per the approved Amberly PUD.
- The Existing Wetland Buffer is per the Wetland Delineation map for Amberly PUD, Kenneth Close, Inc. 1/22/02.