

Amberly AR-1  
GRAVEL & RIP RAP SEDIMENT TRAP AND SEDIMENT BASIN SIZES

STRUCTURE #	DRAINAGE AREA (AC)	DENUDED AREA (AC)	SIZE (MINIMUM)	WEIR LENGTH (FT)	VOLUME REQUIRED (CF)	VOLUME PROVIDED (CF)	Surface Area Required (sq)	Surface Area Provided (sq)	
#	(AC)	(AC)	WIDTH (FT)	LENGTH (FT)	DEPTH (FT)	(CF)	(sq)	(sq)	
SB#1 (BMP #3)	13.1	13.1	30	60	3.0	23,580	70,200	0.402	0.403
SB#2 (BMP #5)	6.8	6.8	30	60	3.0	12,240	27,300	0.208	0.209
SB#3 (BMP #6)	8.2	8.2	30	60	3.0	14,832	33,750	0.253	0.258
TST#4	1.6	1.6	32	66	3.0	5,282	4,224	0.048	0.048
TST#5	3.1	3.1	45	91	3.0	5,400	8,100	0.093	0.094
TST#6	1.1	1.1	30	60	3.0	1,890	3,600	0.032	0.041
TST#7	1.9	1.9	35	70	3.0	5,276	4,900	0.056	0.056
TST#8	1.2	1.2	30	60	3.0	2,232	3,600	0.038	0.041
TST#9	2.1	2.1	40	80	3.0	3,852	6,400	0.066	0.073
TST#11	3.0	3.0	45	90	3.0	5,400	8,100	0.092	0.093
SB#12 (BMP #8)	3.2	3.2	30	60	3.0	4,800	8,236	0.098	0.101
TST#13	3.0	2.3	45	90	3.0	4,098	8,100	0.093	0.093
TST#14	1.5	1.8	30	60	3.0	2,828	3,900	0.045	0.045
SB#15 (BMP #1)	7.6	3.0	30	60	3.0	5,436	30,450	0.233	0.233
TST#16	1.1	1.1	30	60	3.0	1,890	3,600	0.032	0.041
TST#17	1.1	1.1	30	60	3.0	1,890	3,600	0.032	0.041
TST#18	2.1	2.1	40	80	3.0	3,852	6,400	0.066	0.073
TST#19	1.1	1.1	30	60	3.0	1,890	3,600	0.032	0.041
TST#20	1.1	1.1	30	60	3.0	1,890	3,600	0.032	0.041

#10 HAS NOT BEEN USED.  
NOTE: STRUCTURES 1, 2, 3, 12, AND 15 WILL BE SEDIMENT BASIN TYPE PER DETAIL.  
ALL OTHERS WILL BE TEMPORARY SEDIMENT TRAP PER DETAIL.  
\*\* MINIMUM WEIR LENGTH = 4"  
INCLUDES 1' OF FREE BOARD.

Amberly AR-1  
Sediment Basin Sizes

SB1	DIMENSIONS	ELEV.
EMERGENCY SPILLWAY	10'x0.5'	255.5
TOP OF DAM WIDTH	12.0'	256.0
ANTI-SEEP COLLAR	5'x5'	
RIP RAP DISSIPATER PAD	81.3'W, 9'EW, 18'D	248.0
ANTI-FLOTATION DEVICE	4'x4'x4'	245.5
TOP OF RISER	18"	254.0
OUTLET PIPE INVERT IN	12"	249.5
OUTLET PIPE INVERT OUT	12"	248.0
SEDIMENT STORAGE AREA	90'x195'x4'	250.0
*6" Class B RipRap		

SB2	DIMENSIONS	ELEV.
EMERGENCY SPILLWAY	10'x0.5'	262.5
TOP OF DAM WIDTH	16.0'	263.0
ANTI-SEEP COLLAR	5'x5'	
RIP RAP DISSIPATER PAD	81.3'W, 9'EW, 18'D	257.0
ANTI-FLOTATION DEVICE	4'x4'x4'	254.0
TOP OF RISER	18"	261.0
OUTLET PIPE INVERT IN	12"	258.0
OUTLET PIPE INVERT OUT	12"	257.0
SEDIMENT STORAGE AREA	65'x140'x3'	259.0

SB3	DIMENSIONS	ELEV.
EMERGENCY SPILLWAY	10'x0.5'	256.5
TOP OF DAM WIDTH	11.0'	257.0
ANTI-SEEP COLLAR	5'x5'	
RIP RAP DISSIPATER PAD	121.4'W, 13.5'EW, 18'D	251.0
ANTI-FLOTATION DEVICE	4'x4'x4'	251.0
TOP OF RISER	24"	256.0
OUTLET PIPE INVERT IN	18"	252.0
OUTLET PIPE INVERT OUT	18"	251.5
SEDIMENT STORAGE AREA	75'x160'x3'	252.0

SB12	DIMENSIONS	ELEV.
EMERGENCY SPILLWAY	20'x0.5'	274.5
TOP OF DAM WIDTH	8.0'	275.0
ANTI-SEEP COLLAR	5'x5'	
RIP RAP DISSIPATER PAD	101.3'W, 11'EW, 18'D	268.0
ANTI-FLOTATION DEVICE	4'x4'x4'	265.5
TOP OF RISER	18"	273.5
OUTLET PIPE INVERT IN	12"	269.5
OUTLET PIPE INVERT OUT	12"	268.0
SEDIMENT STORAGE AREA	75'x150'x3'	269.0

SB15	DIMENSIONS	ELEV.
EMERGENCY SPILLWAY	10'x1.0'	256.0
TOP OF DAM WIDTH	16.0'	257.0
ANTI-SEEP COLLAR	5'x5'	
RIP RAP DISSIPATER PAD	81.3'W, 9'EW, 18'D	250.0
ANTI-FLOTATION DEVICE	4'x4'x4'	247.0
TOP OF RISER	12"	254.0
OUTLET PIPE INVERT IN	12"	251.0
OUTLET PIPE INVERT OUT	12"	250.0
SEDIMENT STORAGE AREA	70'x145'x3'	251.0

DISSIPATOR SUMMARY

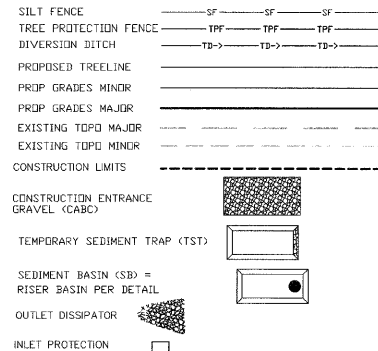
OUTLET #	PIPE DIA. (IN)	DISCHARGE (CFS)	OUTLET W (FT)	END W (FT)	LENGTH (FT)	DEPTH (IN)	d50 SIZE (IN)	CLASS
SB 1	24	15.32	6	14	12	22	6	B
SB 2	18	12.31	4.5	10.5	9	22	6	B
SB 3	18	14.98	4.5	10.5	9	22	6	B
SB 15	18	13.78	4.5	10.5	9	22	6	B

NOTE ALL STONE CLASS "B" OR LARGER SHALL BE UNDERLAIN WITH MIRAFI 600X OR EQUAL.

FES DISSIPATOR SUMMARY

OUTLET #	PIPE DIA. (IN)	DISCHARGE (CFS)	BEGIN W (FT)	END W (FT)	LENGTH (FT)	THICKNESS (IN)	CLASS
FES#1	30.00	27.78	7.50	10	7.50	18	B
FES#23	15.00	5.57	3.75	5	3.75	18	B
FES#30	15.00	3.68	3.75	5	3.00	18	B
FES#33	18.00	12.29	4.50	6	4.50	18	B
FES#44	15.00	12.20	3.75	5	3.75	18	B
FES#59	24.00	24.77	6.00	8	6.00	18	B
FES#76	15.00	3.69	3.75	5	3.75	18	B
FES#79	18.00	9.65	4.50	6	4.50	18	B
FES#92	15.00	3.54	3.75	5	3.75	18	B
FES#98	15.00	5.44	3.75	5	3.75	18	B
FES#100	24.00	15.81	6.00	8	6.00	18	B
FES#141	24.00	3.57	6.00	8	6.00	18	B
FES#131	15.00	3.44	3.75	5	3.75	18	B
FES#134	15.00	0.83	3.75	5	3.75	18	B
FES#137	24.00	19.86	6.00	8	6.00	18	B

GRADING/EROSION CONTROL LEGEND



TOWN OF CARY CONSTRUCTION SEQUENCE

- SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE TOWN OF CARY ENVIRONMENTAL ENGINEER, CONTRACTOR AND OWNERS REPRESENTATIVE MUST ATTEND. RISER STRUCTURE MUST BE ON SITE BEFORE PERMIT IS ISSUED.
- OBTAIN LAND DISTURBANCE PERMIT.
- INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, TREE PROTECTION FENCE, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES.
- SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- CALL FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL ENGINEER TO OBTAIN A CERTIFICATE OF COMPLIANCE.
- BEGIN CLEARING AND GRUBBING. CLEAN SEDIMENT TRAPS WHEN HALF FULL. MAINTAIN EROSION CONTROL DEVICES AND INSPECT DAILY. ROUGH GRADE SITE.
- ALL PUBLIC ROADWAYS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN AT ALL TIMES DURING CONSTRUCTION.
- INSTALL STORM SEWER, IF SHOWN, AND PROTECT INLETS WITH INLET PROTECTION, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
- CUT AND FILL SLOPES WILL BE STABILIZED WITHIN 15 DAYS OF ANY PHASE OF GRADING.
- STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE. WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS WITHIN FIFTEEN (15) DAYS OF COMPLETION OF ANY PHASE OF CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN SOIL EROSION AND EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED OR WHEN 80% OF THE LOTS WITHIN THE DRAINAGE AREA IS GRADED TO FINISHED GRADE.
- WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL FOR AN INSPECTION BY THE ENVIRONMENTAL ENGINEER.
- IF SITE IS APPROVED, REMOVE TEMP. DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
- WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL ENGINEER TO OBTAIN A CERTIFICATE OF COMPLETION.
- TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF BUFFER, THE CONTRACTOR SHALL CUT MINIMUM 2" TRENCHES ALONG THE LIMITS OF DISTURBANCE TO CUT, RATHER THAN TEAR ROOTS. MAINTAIN TREE PROTECTION FENCE UNTIL FINAL INSPECTION IS SCHEDULED.

SITE DATA

TOTAL DENUDED AREA = 85 ACRES  
PROJECT IS LOCATED IN CARY FEAR RIVER BASIN, JORDAN LAKE WATERSHED.  
ALL BMP'S SHOWN WILL ACT AS TEMPORARY SEDIMENT TRAPS DURING CONSTRUCTION, AND MUST BE CLEANED OUT AS NEEDED AND WHEN SITE IS COMPLETELY STABILIZED.

PROJECT: Amberly AR - Phase I  
Pre and Post Development Flows

Drainage Basin #	Area (ac)	I (10) (in/hr)	Pre-Development Flows		Post-Development Flows	
			C-value	Q(10) (cfs)	C-value	Q(10) (cfs)
1	16.70	7.22	0.25	30.14	0.6	72.34
2	6.15	7.22	0.25	11.10	0.6	26.64
3	15.76	7.22	0.25	28.45	0.6	68.27
4	1.75	7.22	0.25	3.15	0.6	7.58
5	8.03	7.22	0.25	14.49	0.6	34.78
6	9.75	7.22	0.25	17.60	0.6	42.24
7	7.30	7.22	0.25	13.18	0.6	31.62
8	3.84	7.22	0.25	6.93	0.6	16.63
Total	58.14	7.22	0.25	104.94	0.6	251.86

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT TOWN OF CARY AND NCDOT STANDARD SPECIFICATIONS AND DETAILS.
- STREAM BUFFERS AND WETLAND AREAS WERE DELINEATED BY S&EC, INC AND MAPPED BY KENNETH CLOSE, INC. "WETLAND DELINEATION MAP FOR AMBERLY PUD", DATED 7/26/02, REVISED 1/16/02. THE DELINEATION MAP HAS BEEN APPROVED BY THE US ARMY CORPS OF ENGINEERS AND INCLUDES RIPARIAN BUFFERS CONFIRMED BY THE TOWN OF CARY. THE AREAS ARE SHOWN ON THE PLAN.
- THE CONTRACTOR, TO THE MAXIMUM EXTENT POSSIBLE, SHALL NOT REMOVE LARGE SPECIMEN TREES AT THE EDGES OF THE EASEMENTS, AND MINIMIZE DAMAGES TO TREES AT THE EDGES OF THE CONSTRUCTION CORRIDOR.
- CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL/PROTECTION OF ALL EXISTING BUILDINGS, FOUNDATIONS, FENCE, DRAINAGE PIPING WITHIN THE REQUIRED CLEARING LIMITS, UNLESS NOTIFIED BY OWNER OR ENGINEER, DISPOSE ALL CONSTRUCTION DEWALTON DEBRIS IN APPROVED LANDFILL.
- ALL REINFORCED CONCRETE STORAGE WATER PIPING SHALL BE CLASS II WITH PREFORMED GASKET UNLESS OTHERWISE SPECIFIED PIPE BETWEEN YARDS CAN BE REINFORCED CONCRETE OR HDPE PIPE.
- ALL STORM DRAIN FRAMES AND GRATES SHALL BE STAMPED WITH "DRAINS TO RIVERS" IN ACCORDANCE WITH TOWN OF CARY STANDARDS.
- ALL TREE PROTECTION FENCING SHALL BE MAINTAINED UNTIL ALL SITE WORK IS COMPLETED. THE FENCING SHALL BE REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY (CO).
- TEMPORARY DIVERSION DITCHES ARE TO BE MAINTAINED DAILY DURING CONSTRUCTION AS GRADING ACTIVITIES CONTINUE. DIVERSION DITCHES SHOWN ON THE PLAN ARE THE MINIMUM REQUIRED.
- ESTABLISHMENT OF PERMANENT GROUND COVER IS REQUIRED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER.
- TOPSOIL AND SUBSOIL STOCKPILE LOCATIONS SHALL BE IDENTIFIED ON SITE AS NEEDED. ANY OFF SITE LOCATIONS MUST BE COORDINATED WITH THE TOWN AND SUPPLEMENTAL EROSION CONTROL PLAN WILL BE REQUIRED FOR THESE AREAS.
- THIS PROJECT IS HIGH DENSITY AND THE CONSTRUCTED WETLANDS ARE SERVING AS WATERSHED PROTECTION.
- THIS PROJECT IS OUTSIDE OF 100 YEAR FLOOD PLAIN.
- TREE PROTECTION FENCING WILL BE INSTALLED AND INSPECTED BEFORE THE GRADING PERMIT IS ISSUED.
- THE PROJECT WILL MEET ALL OF THE REQUIREMENTS RELATIVE TO THE BEST MANAGEMENT PRACTICES AND ENGINEERED STORMWATER CONTROL STRUCTURES AS OUTLINED IN THE TOWN OF CARY LAND DEVELOPMENT ORDINANCE (CHAPTER 7, PART 3.7, I.D.).
- ADDITIONAL SEDIMENT CONTROL MAY BE NEEDED ALONG SANITARY SEWER LINE AS DICTATED AS NEED ARISES OR AS DIRECTED BY TOWN OF CARY.

SPECIAL NOTES:

- SEDIMENT BASIN #6 AND 11 ARE LOCATED NEXT TO A LARGE FILL SLOPE. THE TOE OF SLOPE SHALL BE PROTECTED WITH A SILT FENCE (PROVIDE SILT FENCE OUTLET) WHEN FILL SLOPE IS COMPLETED. CONSTRUCT A TEMPORARY DIVERSION DITCH AT THE TOP OF SLOPE TO MINIMIZE RUNOFF OVER BANK, AND SEED AND MULCH BANK.
- TEMPORARY DIVERSION DITCHES ARE NEEDED IN FRONT OF BASIN #10 AND 11 TO DIVERT WATER INTO BASINS UNTIL STORM SEWER SYSTEM IS OPERATIONAL. PROVIDE TEMPORARY DIVERSION DITCH AT TOP OF SLOPE ALONG ALL FORTH PL TO DIVERT WATER TO BASIN #1. THIS DITCH CAN BE A SIMPLE BERM TO PREVENT WATER FROM GOING DOWN THE FILL SLOPES.
- PROVIDE 12" DIAMETER SLOPE TO MOVE WATER FROM TEMPORARY DIVERSION DITCH TO SEDIMENT BASIN WHERE FILL SLOPE IS GREATER THAN 6°.

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RELEASED FOR CONSTRUCTION

Carolina Preserve by  
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Raleigh, NC 27607

REVISIONS


PROJECT #: 04-006 DATE: 6/25/05  
DRAWN BY: wf CHECKED BY: ds  
TITLE: EROSION CONTROL NOTES AND TABLES  
SHEET: C2.0.3

84-SB-028  
APPROVED  
TOWN OF CARY

Approved by: *[Signature]* Date: 6/10/05  
Planning: *[Signature]* Date: 6/10/05  
Engineering: *[Signature]* Date: 6/10/05