



# Annual Inspection and Maintenance Reports for Stormwater Control Measures (SCMs)

## COVER SHEET

*Section 5.4.8 (c) of the Chapel Hill Land Use Management Ordinance requires that "All stormwater management facilities must be inspected by the responsible party, in accordance with the approved schedule in the stormwater operation and maintenance plan, to identify maintenance and repair needs, and to ensure compliance with the requirement of the recorded operation and maintenance plan."*

### GENERAL INFORMATION

Please use one Cover Sheet per site and one Inspection Report Form for each SCM on the site. Please include captioned color photographs of each main component of the SCM at the end of the Inspection Report Form.

SITE		INSPECTOR	
Site / Owner Name:		Inspector Name:	
Site Street Address:		Company Name:	
Site PIN:		Mailing Address:	
Owner Mailing Address:			
		Phone Number:	
Owner Email Address:		Email Address:	

### INSPECTION REPORT FORMS

Indicate the quantity of each SCM on the site in the table below. Please use one form for each SCM and submit all forms together with photographs as a single PDF report with this Cover Sheet as the first page.

SCM	QUANTITY	SCM	QUANTITY
Bioretention Cell		Permeable Pavement	
Constructed Wetlands		Sand Filter	
Dry Pond		StormFilter	
Grassed Swale		Underground Detention	
Hydrodynamic Separator		Wet Pond	
Level Spreader		Other (Describe)	

## INSPECTION RESULTS

Please note all required maintenance or repairs on the individual inspection forms. A re-inspection and certification must be completed within 60 days of failed report date. It is highly recommended that the inspector be part of the repair process in order to ensure that repairs are being performed promptly and properly.

**PASS**

☐

*The certifying professional must sign and seal below.*

**FAIL**

☐

*If any of the components of the SCM Inspection is coded FAIL, the entire SCM and the entire site fails inspection.*

## MAINTENANCE RECORDS

Please attach records of routine SCM maintenance since the last inspection and maintenance report submittal to the Town. *Routine maintenance is required for each SCM per Town ordinance and per the recorded maintenance covenants.*

**Are records available?**

**YES**

☐

*(Attach to PDF)*

**NO**

☐

*If not available, please provide a brief explanation:*

## PROFESSIONAL CERTIFICATION

Certification shall be provided by a registered North Carolina Professional Engineer or Landscape Architect with qualified professional Stormwater Control Management (SCM) Inspection and Maintenance training.

I, \_\_\_\_\_, as a duly registered \_\_\_\_\_ in the State of North Carolina, attest that I have performed a thorough inspection for all SCMs associated with this site. I further attest that all SCMs (please circle appropriate response) are or ~~are not~~ performing as designed and in compliance with the Town of Chapel Hill ordinances and the terms and conditions of the recorded maintenance agreement.

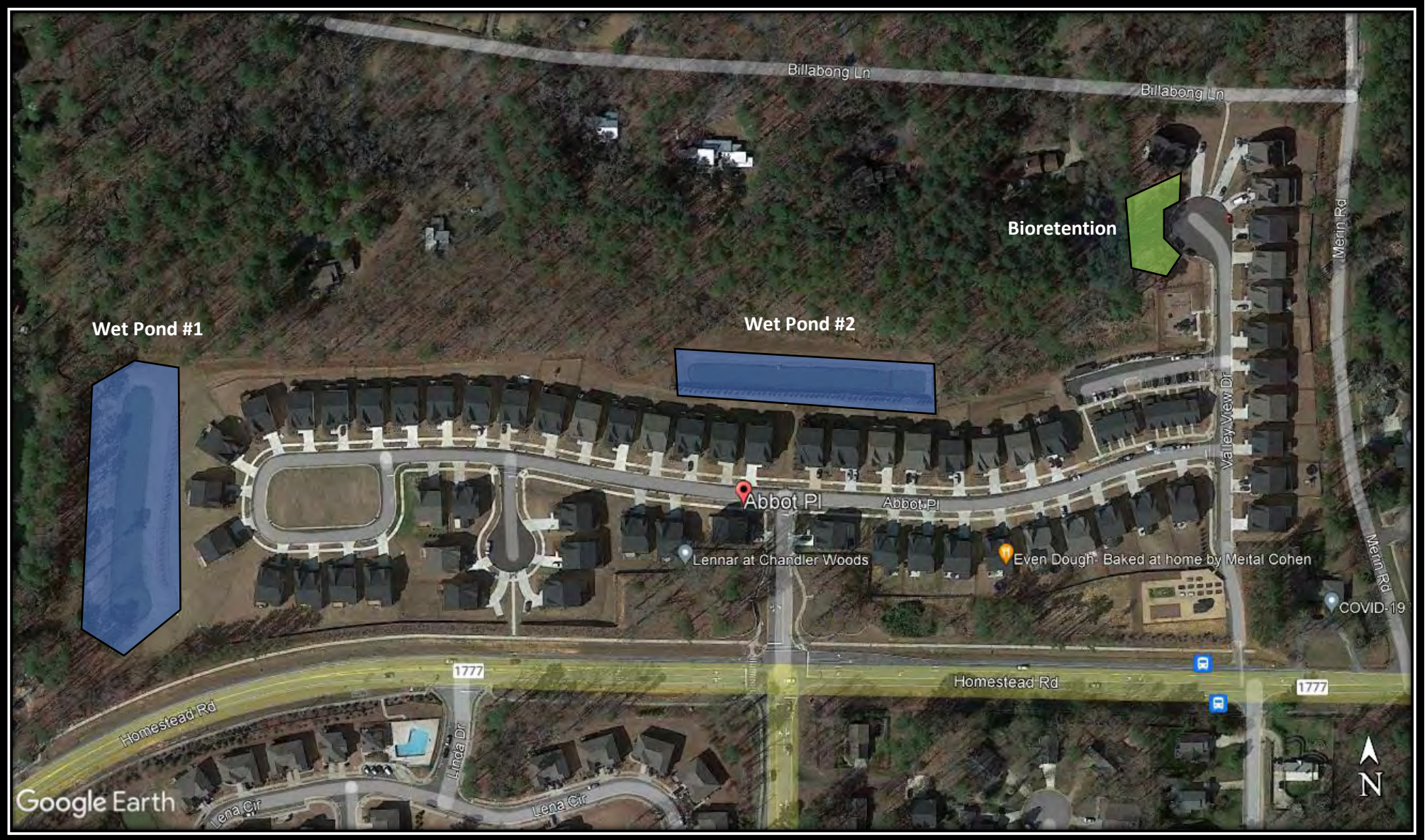


Date: \_\_\_\_\_

Signature: Timothy P. Grady

NCSU BMP Certification Number or list similar training credential:





**CHANDLER WOODS – CHAPEL HILL, NC**  
 Stormwater Control Measure (SCM) Location Map

10.19.2022



## Annual Inspection and Maintenance Reports for Stormwater Control Measures (SCMs)

### BIORETENTION

*Important: Please note that this inspection checklist is not an exhaustive list of inspection items for any particular SCM. It is the responsibility of the professional inspecting the facility to perform a comprehensive inspection and to note additional items as necessary.*

#### GENERAL INFORMATION

Site Name:	Chandler Woods	Date:	04/19/2024
SCM Location:	Abbot Place	SCM ID Number: (if applicable, per approved plans)	

#### CODE KEY

N/A = Not Applicable	M = Monitor; Minor Maintenance Needed (SCM is Functioning as Designed)
PASS = No Maintenance Needed; Functioning as Designed	FAIL = Maintenance Required; SCM <i>not</i> Functioning as Designed

#### INLET DEVICES

ASSESSMENT	CODE	COMMENTS
Obstruction: Vegetation, Debris, Sediment, Other	PASS	
Velocity Dissipator Pad Condition	PASS	
Structural Condition	PASS	
Erosion or Undercutting	PASS	
Other (describe)		

**BIORETENTION CELL**

ASSESSMENT	CODE	COMMENTS
Overgrown Vegetation	PASS	
Standing Water for > 12 Hours Post Rain Event	PASS	
Plants are Dead, Diseased or Dying	PASS	
Soils and/or Mulch Clogged with Sediment	PASS	
Invasive Vegetation (Estimate %)	PASS	
Mulch Depth and Condition	PASS	Mulch remove/replace next due in '25 or '26 based on condition
Erosion or Gullies Present	PASS	
Underdrain System	PASS	
Ponding Depth	PASS	
		Design Ponding Depth: 12"
		Existing Ponding Depth: 12"
Other (describe)		

**OUTLET DEVICE**

ASSESSMENT	CODE	COMMENTS
Obstruction: Vegetation, Debris, Sediment, Other	PASS	
Structural Condition	PASS	
Velocity Dissipator Pad Condition	M	Nuisance trees present; see photographic journal
Pipe Condition	PASS	
Erosion or Undercutting	PASS	
High-flow Bypass	PASS	Turf emergency spillway stable with established vegetation
Other (Describe)		

**MISCELLANEOUS**

ASSESSMENT	CODE	COMMENTS
Trash or Debris	PASS	
Access	M	Portion of outlet easement overgrown; see Photo Journal
Vandalism	PASS	
Signage	N/A	
Other (Describe)		
Other (Describe)		
Other (Describe)		

**PHOTOGRAPHS**

*Please attach digital photographs of the site and each main component of the SCM with descriptive captions.*





## Annual Inspection and Maintenance Reports for Stormwater Control Measures (SCMs)

### WET POND

*Important: Please note that this inspection checklist is not an exhaustive list of inspection items for any particular SCM. It is the responsibility of the professional inspecting the facility to perform a comprehensive inspection and to note additional items as necessary.*

#### GENERAL INFORMATION

Site Name:	Chandler Woods	Date:	04/19/2024
SCM Location:	Abbot Place	SCM ID Number: (if applicable, per approved plans)	WP #1

#### CODE KEY

N/A = Not Applicable	M = Monitor; Minor Maintenance Needed (SCM is Functioning as Designed)
PASS = No Maintenance Needed; Functioning as Designed	FAIL = Maintenance Required; SCM <i>not</i> Functioning as Designed

#### INFLOW POINTS

ASSESSMENT	CODE	COMMENTS
Obstruction: Vegetation, Debris, Sediment, Other	PASS	
Velocity Dissipator Condition	PASS	
Pipe Condition	PASS	Partially submerged at normal pool per design
Erosion or Undercutting	PASS	
Other (describe)		

**FOREBAY**

ASSESSMENT	CODE	COMMENTS
Sediment and Debris Accumulation	PASS	
Side Slope Erosion	PASS	
Invasive Vegetation	PASS	Algae actively managed by SCM maintenance company
Other (describe)		

**VEGETATED SHELF / MAIN TREATMENT AREA**

ASSESSMENT	CODE	COMMENTS
Sediment and Debris Accumulation	PASS	
Visible Pollution or High Turbidity	PASS	
Plants are Dead, Diseased or Dying	M	See photographic journal
Vegetation Height and Density	PASS	
Bare Soils or Erosive Gullies	PASS	
Invasive Vegetation (Estimate %)	PASS	
Algae or Aquatic Weed Cover (Estimate %)	PASS	Algae (30%) actively managed via routine maintenance
Other (describe)		



**EMBANKMENT**

ASSESSMENT	CODE	COMMENTS
Erosion or Loss of Dam Material	PASS	
Shrubs or Trees Present	M	Remove woody's along toe of dam; see photographic journal
Animal Burrows	PASS	
Soft or Boggy Areas	PASS	
Other (Describe)	M	Bare/sparse areas at downslope; see photographic journal

**OUTLET DEVICE**

ASSESSMENT	CODE	COMMENTS
Obstruction: Vegetation, Debris, Sediment, Other	PASS	
Structural Condition	PASS	
Velocity Dissipator Pad Condition	PASS	
Pipe Condition	PASS	
Orifice Condition	PASS	
Erosion or Undercutting	PASS	
High-flow Bypass	PASS	
Other (describe)	M	Seepage at riser outlet structure; see photographic journal

## MISCELLANEOUS

ASSESSMENT	CODE	COMMENTS
Trash or Debris	PASS	
Access	PASS	
Vandalism	PASS	
Fish or Wildlife Observations	PASS	
Fence Condition	N/A	
Signage	N/A	
Other (describe)		
Other (describe)		
Other (describe)		

## PHOTOGRAPHS

*Please attach digital photographs of the site and each main component of the SCM with descriptive captions.*



## Annual Inspection and Maintenance Reports for Stormwater Control Measures (SCMs)

### WET POND

*Important: Please note that this inspection checklist is not an exhaustive list of inspection items for any particular SCM. It is the responsibility of the professional inspecting the facility to perform a comprehensive inspection and to note additional items as necessary.*

#### GENERAL INFORMATION

Site Name:	Chandler Woods	Date:	04/19/2024
SCM Location:	Abbot Place	SCM ID Number: (if applicable, per approved plans)	WP #2

#### CODE KEY

N/A = Not Applicable	M = Monitor; Minor Maintenance Needed (SCM is Functioning as Designed)
PASS = No Maintenance Needed; Functioning as Designed	FAIL = Maintenance Required; SCM <i>not</i> Functioning as Designed

#### INFLOW POINTS

ASSESSMENT	CODE	COMMENTS
Obstruction: Vegetation, Debris, Sediment, Other	PASS	
Velocity Dissipator Condition	PASS	
Pipe Condition	PASS	
Erosion or Undercutting	PASS	
Other (describe)		

**FOREBAY**

ASSESSMENT	CODE	COMMENTS
Sediment and Debris Accumulation	PASS	
Side Slope Erosion	PASS	
Invasive Vegetation	PASS	
Other (describe)	PASS	Non-vegetated earthen berm w/ top at normal pool per design

**VEGETATED SHELF / MAIN TREATMENT AREA**

ASSESSMENT	CODE	COMMENTS
Sediment and Debris Accumulation	PASS	
Visible Pollution or High Turbidity	PASS	
Plants are Dead, Diseased or Dying	M	See photographic journal
Vegetation Height and Density	PASS	
Bare Soils or Erosive Gullies	PASS	
Invasive Vegetation (Estimate %)	PASS	
Algae or Aquatic Weed Cover (Estimate %)	PASS	
Other (describe)	M	Overgrowth at retaining walls; see photographic journal

**EMBANKMENT**

ASSESSMENT	CODE	COMMENTS
Erosion or Loss of Dam Material	PASS	
Shrubs or Trees Present	M	Remove woody's along toe of dam; see photographic journal
Animal Burrows	PASS	
Soft or Boggy Areas	PASS	
Other (Describe)	M	Maintenance required at landscaped portions; see photo journal

**OUTLET DEVICE**

ASSESSMENT	CODE	COMMENTS
Obstruction: Vegetation, Debris, Sediment, Other	PASS	
Structural Condition	PASS	
Velocity Dissipator Pad Condition	PASS	
Pipe Condition	PASS	
Orifice Condition	PASS	
Erosion or Undercutting	PASS	
High-flow Bypass	PASS	
Other (describe)	M	Seepage at riser outlet structure; see photographic journal



## MISCELLANEOUS

ASSESSMENT	CODE	COMMENTS
Trash or Debris	PASS	
Access	PASS	
Vandalism	PASS	
Fish or Wildlife Observations	PASS	
Fence Condition	PASS	
Signage	N/A	
Other (describe)		
Other (describe)		
Other (describe)		

## PHOTOGRAPHS

*Please attach digital photographs of the site and each main component of the SCM with descriptive captions.*



P: 919.321.0638

F: 919.321.8311

PO BOX 297  
APEX, NC 27502

## PHOTOGRAPHIC JOURNAL

### SCM #1 – WET DETENTION POND #1 (WEST)



**A: VIEW OF WET DETENTION POND**

*(ALGAE ADDRESSED VIA ROUTINE MAINTENANCE; CONTRACTOR ADVISED RECENTLY TREATED)*





**B: VIEW OF FOREBAY AND INLET**





**C: VIEW OF DAM EMBANKMENT**



**D: VIEW OF SIDE SLOPES**





**E: VIEW OF RISER EXTERIOR AND INTERIOR**



**F: VIEW OF OUTLET DISCHARGE AREA**



## SCM #2 – WET DETENTION POND #2 (NORTH)



**A: VIEW OF WET DETENTION POND**



**B: VIEWS OF FOREBAY AND INLET**





**C: VIEW OF DAM EMBANKMENT**



**D: VIEW OF SIDE SLOPES AND RETAINING WALLS**





**E: VIEW OF RISER EXTERIOR AND INTERIOR**



**F: VIEW OF OUTLET DISCHARGE AREA**



### SCM #3 – BIORETENTION (EAST)



**A: VIEW OF BIORETENTION**



**B: VIEW OF NORTH END OF CELL WITH INLET/FOREBAY**





**C: VIEWS OF SIDE SLOPES**



**D: VIEW OF RISER OUTLET STRUCTURE EXTERIOR AND INTERIOR**  
**(FUNCTIONAL INTERNAL WATER STORAGE CONFIRMED)**





**E: VIEWS OF OUTLET CONDUIT DISCHARGE**



**SUMMARY OF MISC. REMEDIATION TO IMPLEMENT OVER COMING YEAR**

**SCM #1 – WET DETENTION POND #1 (WEST)**



**A: APPLY HEAVY APPLICATION OF PINE STRAW TO DAM DOWNSLOPE WHERE THERE IS NO VEGETATION  
(IF PREFERRED, IN FALL 2024 CONCERTEDLY/PROPERLY REMEDIATE TO ESTABLISH TURFGRASS COVER)**



**B: COMPARE PLANT ESTABLISHMENT AT LITTORAL SHELF WITH PERMIT PLANTING PLAN;  
DETERMINE SHORTFALLS AND PERFORM SUPPLEMENTAL PLANTING ACCORDINGLY**





**C: CUT/REMOVE IMMATURE WOODY VEGETATION AT DAM TOE UPWARDS FROM THE MATURE TREE LINE; STRING-TRIM REMAINING HERBACEOUS GROWTH**



**D: REMEDIATE LOW POOL LEVEL RESULTING FROM OUTLET STRUCTURE LEAKS; PUMP TO REMOVE STANDING WATER; THOROUGHLY CLEAN ORGANICS FROM ALL SEEPAGE POINTS AND SEAL WITH NON-SHRINK HYDRAULIC GROUT**



## SCM #2 – WET DETENTION POND #2 (NORTH)

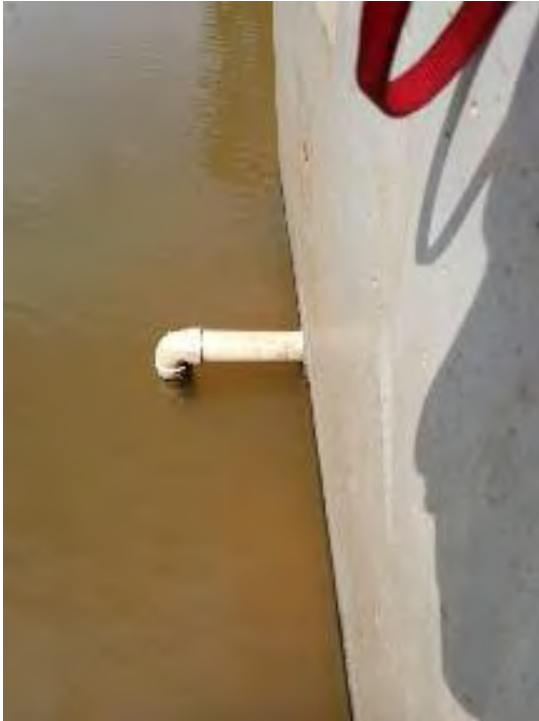


**A: COMPARE PLANT ESTABLISHMENT AT LITTORAL SHELF WITH PLANTING PLAN;  
DETERMINE SHORTFALLS & PERFORM SUPPLEMENTAL PLANTING ACCORDINGLY**



**B: CUT/REMOVE IMMATURE WOODY VEGETATION AT DAM TOE UPWARDS FROM THE  
MATURE TREE LINE; STRING-TRIM REMAINING HERBACEOUS GROWTH**





**D: REMEDIATE LOW POOL LEVEL RESULTING FROM OUTLET STRUCTURE LEAKS: THOROUGHLY CLEAN ORGANICS FROM ALL SEEPAGE POINTS & SEAL W/ NON-SHRINK HYDRAULIC GROUT**



**E: CUT VOLUNTEER VEGETATION AND ON BOTH SIDES OF RETAINING WALL FENCE**



**F: REMOVE WEEDS AND REPLENISH MULCH AT LANDSCAPE BED AND AROUND NURSERY TREES ALONG DAM DOWNSLOPE AT WESTERN END**

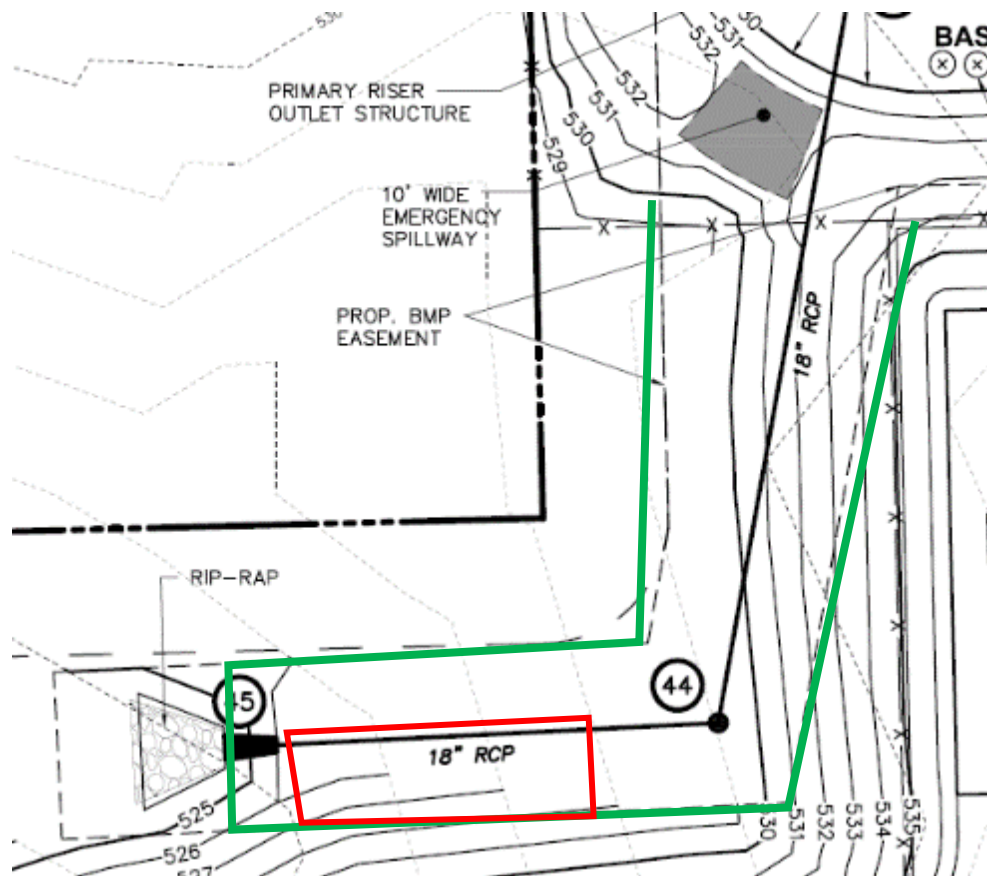


### SCM #3 – BIORETENTION (EAST)



**A: CUT/REMOVE TWO NUISANCE TREES FROM OUTLET DISCHARGE AREA;  
TREAT WILLOW TREE STUMPS WITH HERBICIDE TO PREVENT REGROWTH**

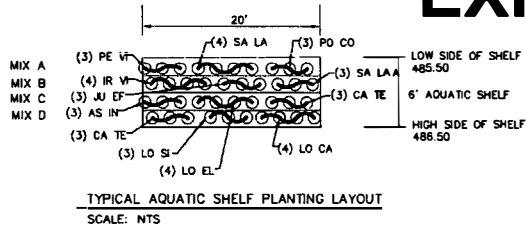




**B: CUT & REMOVE TREES & SHRUBS AT REMAINING PORTION OF OUTLET DISCHARGE EASEMENT CORRIDOR (AREA IN RED ABOVE (ENTIRE EASEMENT OUTLINED IN GREEN); MAINTAIN AS MOWED AT A MAXIMUM HEIGHT OF 18"**

- End of Report -

## EXHIBIT 'B'

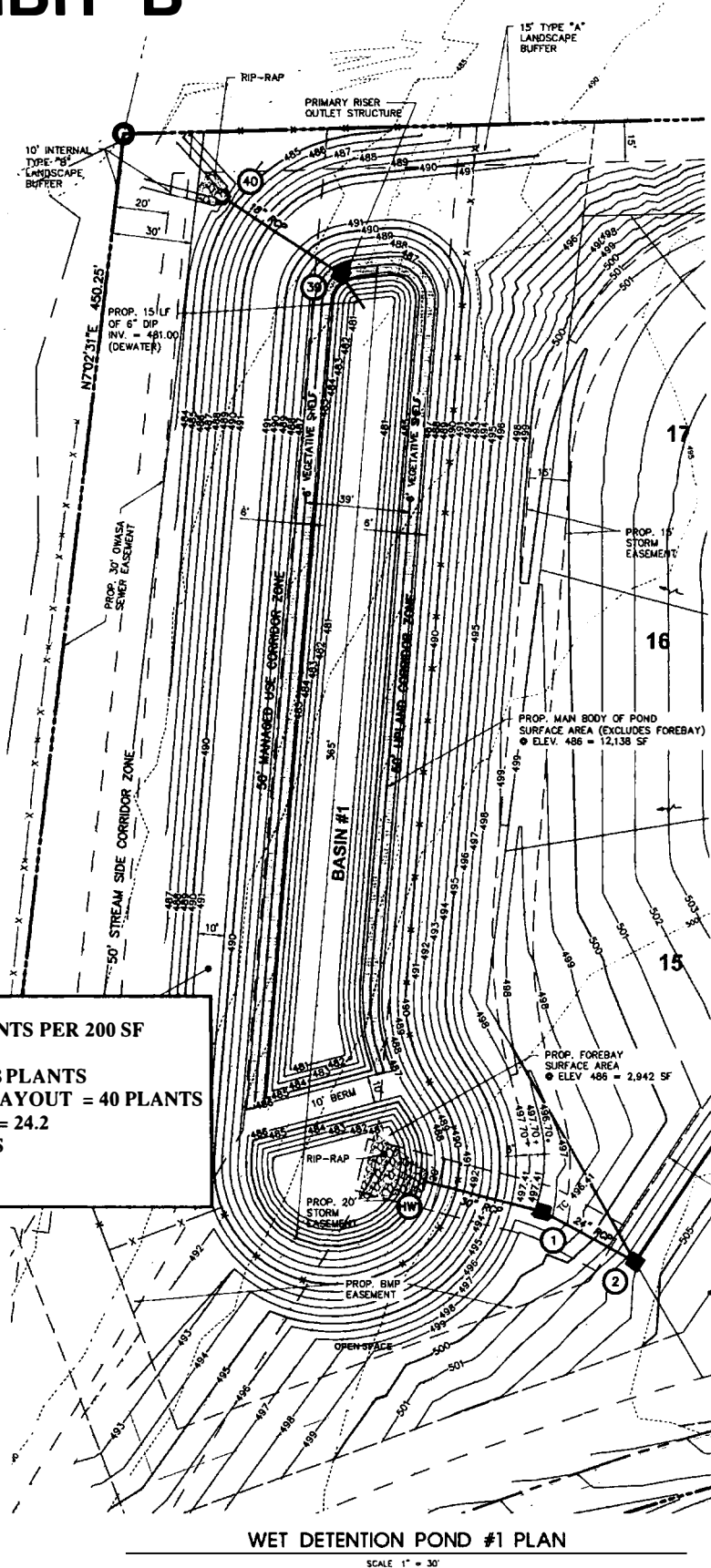


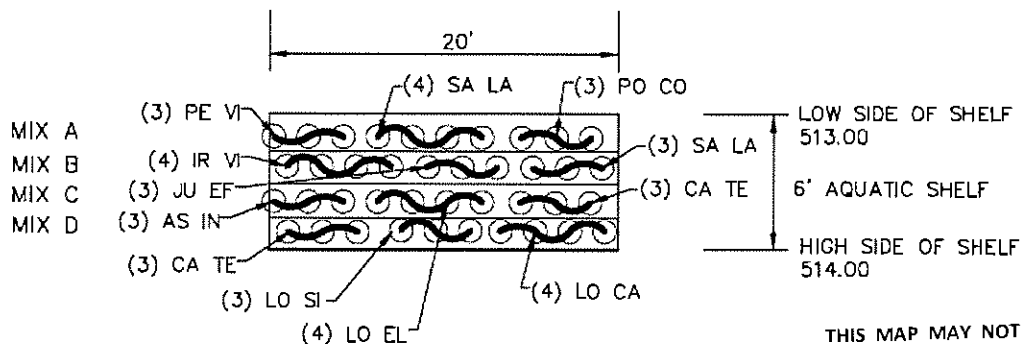
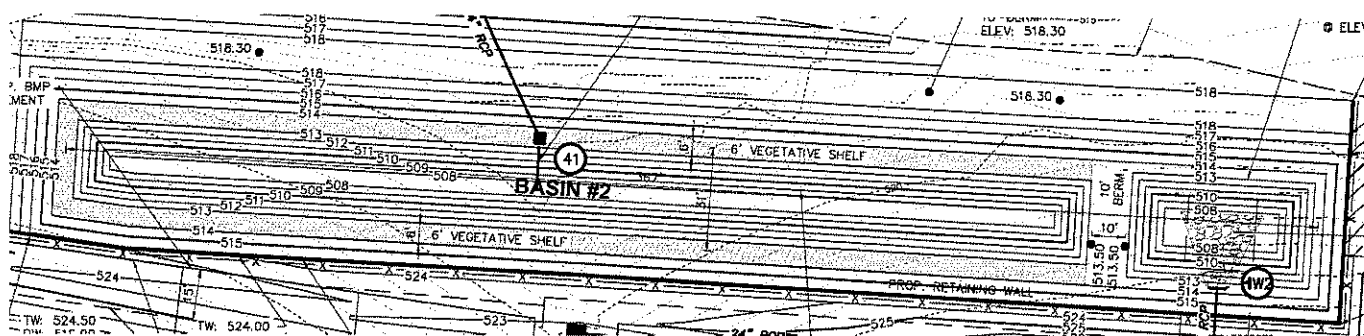
CODE	QTY.	BOT. NAME / COMMON NAME	SIZE	COND	SPACING
<b>MIX A EMERGENT DEEP (6"-3" BELOW WATER LEVEL)</b>					
PE VI	96	Peltandra virginica	18"	plug	24" o.c.
	74	Arrow Arum			Field Locate
SA LA	96	Sagittaria latifolia	9"	plug	24" o.c.
	96	Broad-Leaf Arrowhead			Field Locate
PO CO	96	Pontederia cordata	9"	plug	24" o.c.
	72	Pickering Weed			Field Locate
<b>MIX B EMERGENT SHALLOW (3"-0" BELOW WATER LEVEL)</b>					
IR VI	96	Iris virginica	18"	plug	24" o.c.
	96	Blue Flag Iris			Field Locate
JU EF	96	Juncus effusus	9"	plug	24" o.c.
	72	Common Rush			Field Locate
SA LA	96	Sagittaria latifolia	9"	plug	24" o.c.
	72	Broad-Leaf Arrowhead			Field Locate
<b>MIX C EDGE (0"-3" ABOVE WATER LEVEL)</b>					
AS IN	96	Asclepias incarnata	24"	plug	24" o.c.
	74	Swamp Milkweed			Field Locate
CA TE	96	Carex Tenax	18"	plug	24" o.c.
	72	Quill Sedge			Field Locate
LO EL	96	Lobelia elongata	18"	plug	24" o.c.
	96	Longleaf Lobelia			Field Locate
<b>MIX D SATURATED (3"-6" ABOVE WATER LEVEL)</b>					
CA TE	96	Carex Tenax	18"	plug	24" o.c.
	74	Quill Sedge			Field Locate
LO CA	96	Lobelia cardinalis	18"	plug	24" o.c.
	96	Cardinal Flower			Field Locate
LO SI	96	Lobelia siphilitica	24"	plug	24" o.c.
	72	Great Blue Lobelia			Field Locate

NOTE: SIZE INDICATED AT TIME OF PLANTING.

NCDEQ POND VEGETATION REQUIREMENT = 50 PLANTS PER 200 SF  
 VEGETATIVE SHELF AREA = 3,873 SF  
 NUMBER OF REQUIRED PLANTS =  $(3,873/200) * 50 = 968$  PLANTS  
 NUMBER OF PLANTS IN 20' x 6' TYPICAL PLANTING LAYOUT = 40 PLANTS  
 NUMBER OF TYPICAL PLANTING LAYOUTS =  $968 / 40 = 24.2$   
 TOTAL NUMBER OF PLANTS PROVIDED = 968 PLANTS

THIS MAP IS NOT A  
CERTIFIED SURVEY.





TYPICAL AQUATIC SHELF PLANTING LAYOUT

SCALE: NTS

THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.

CODE	QTY.	BOT. NAME / COMMON NAME	SIZE	COND	SPACING
MIX A EMERGENT DEEP (6"-3" BELOW WATER LEVEL)					
PE VI	96	Peltandra virginica Arrow Arum	18"	plug	24" o.c. Field Locate
SA LA	128	Sagittaria latifolia Broad-Leaf Arrowhead	9"	plug	24" o.c. Field Locate
PO CO	96	Pontederia cordata Pickerel Weed	9"	plug	24" o.c. Field Locate
MIX B EMERGENT SHALLOW (3"-0" BELOW WATER LEVEL)					
IR VI	128	Iris virginica Blue Flag Iris	18"	plug	24" o.c. Field Locate
JU EF	96	Juncus effusus Common Rush	9"	plug	24" o.c. Field Locate
SA LA	96	Sagittaria latifolia Broad-Leaf Arrowhead	9"	plug	24" o.c. Field Locate
MIX C EDGE (0"-3" ABOVE WATER LEVEL)					
AS IN	96	Asclepias incarnata Swamp Milkweed	24"	plug	24" o.c. Field Locate
CA TE	96	Carex Tenera Quill Sedge	18"	plug	24" o.c. Field Locate
LO EL	128	Lobelia Elongata Longleaf Lobelia	18"	plug	24" o.c. Field Locate
MIX D SATURATED (3"-6" ABOVE WATER LEVEL)					
CA TE	96	Carex Tenera Quill Sedge	18"	plug	24" o.c. Field Locate
LO CA	96	Lobelia cardinalis Cardinal Flower	18"	plug	24" o.c. Field Locate
LO SI	128	Lobelia siphilitica Great Blue Lobelia	24"	plug	24" o.c. Field Locate

NOTE: SIZE INDICATED AT TIME OF PLANTING.



## Stormwater Operations and Maintenance

### Log Sheet

Facility Name: Chandler Woods		Permit Number:	
Address: 214 Abbot Place Chapel Hill, NC 27516			
Owner: Chandler Woods MOA PO Box 20969 Raleigh, NC 27619		E-mail: Tom@tracmanagement.com	Phone: (919) 612-5296
Qualified Professional: Triangle Pond Management		E-mail: aquatics@trianglepondmanagement.com	Phone: 919-398-3221
Begin Date: 03/2023		End Date: 02/2024	Signature: <i>Charles Robertson</i>

Date	BMP Type and ID#	Inspected By:	Cause for Inspection	Conditions Requiring Correction	Comments and Actions Taken
3/31/23	All	Nick N.	Maintenance/Mowing	Trash/Debris/Algae/Woody vegetation	Removed/Controlled
4/19/23	All	Justin T.	Maintenance	Trash/Algae/Woody Vegetation	Removed/Controlled
5/23/23	All	Anthony M.	Maintenance/Mowing	Trash/Debris/Unwanted Vegetation	Removed/Controlled
6/21/23	All	Justin T.	Maintenance	Trash/Debris/Unwanted Vegetation	Removed/Controlled
7/12/23	All	Luis R.	Maintenance/Mowing	Trash/Debris/Unwanted Vegetation	Removed/Controlled
8/17/23	All	Justin T.	Maintenance	Trash/Debris/Unwanted Vegetation	Removed



[illegible]

Instructions: Record all inspections and maintenance activities for all SCMs at the facility on this form. Use additional log sheets and/or attach extended comments or documentation as necessary. Submit a copy of this completed Stormwater Operations and Maintenance Log Sheet in the Annual Inspection Report. Start a new log at the time of submission. More instructions about SCM inspection submittal guidelines can be found at this [website](#). The following notes provide guidance for completing the Stormwater Operations and Maintenance Log Sheet.

- BMP ID# — If applicable, use ID# from the approved site plan.
- Inspected by — Note all inspections and maintenance activities on this form, including the required independent annual inspection.
- Cause for inspection — Note if the inspection is routine, pre-rainy-season, post-storm, annual, or in response to a noted problem or complaint.
- Conditions Requiring Correction — Note any condition that requires correction or indicates a need for maintenance.
- Comments and Actions Taken — Describe any maintenance performed or will need to be performed in the future.