



Public Services

Engineering
212 Operations Center Drive
Wilmington, NC 28412
910 341-7807
910 341-5881 fax
wilmingtonnc.gov
Dial 711 TTY/Voice

October 26, 2021

Mr. James Shafer, Administrator
Wilmington Surgcare, L.P.
1801 South 17th Street
Wilmington, NC 28401

**Subject: Stormwater Management Permit No. 2010014R1
Wilmington Surgcare (Expansion)
High Density Development**

Dear Mr. Shafer:

The City of Wilmington Engineering Division has received a request for a revision to the Stormwater Management Permit for Wilmington Surgcare. Having reviewed the application and all supporting materials, the City of Wilmington has determined that the proposed revision meets the requirements of the City of Wilmington's Comprehensive Stormwater Ordinance.

The revisions include:

- Existing Building Expansion;
- Additional impervious pavement and sidewalks.
- See approved plans dated October 20, 2021.

Please be aware all terms and conditions of the permit Issued on July 21, 2010 remain in full force and effect. Any additional changes to the approved plans must be approved by this office prior to construction. The issuance of the plan revision does not preclude the permittee from complying with all other applicable statutes, rules, regulations or ordinances which may have jurisdiction over the proposed activity and obtaining a permit or approval prior to construction.

The revised stamped, approved stormwater management drawings will be released for construction by the Wilmington Planning Division under separate cover. Please replace any old plan sheets from the approved set with the new, revised sheet. An electronic copy of the approved drawing set, permit, application and supplementary documents will be maintained by the Wilmington Engineering Division. If you have any questions, or need additional information, please contact Richard Christensen at (910) 341-7813 or richard.christensen@wilmingtonnc.gov.

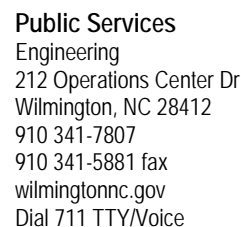
Sincerely,

Richard Christensen

for Anthony Caudle, City Manager
City of Wilmington

cc: Richard Collier, PE, McKim & Creed
Brian Chambers, Senior Planner, City of Wilmington

By waltonj at 3:53 pm, Jul 26, 2021



I. GENERAL INFORMATION

1. Project Name (subdivision, facility, or establishment name - should be consistent with project name on plans, specifications, letters, operation and maintenance agreements, etc.):

Wilmington Surgcare Expansion

2. Location of Project (street address):

1801 S. 17th Street

City: Wilmington

County: New Hanover

Zip: 28401

3. Directions to project (from nearest major intersection):

600 feet north of where S. 17th St. and New Hanover Medical Park Dr./ Robin Hood Rd.
intersect, on the right.

II. PERMIT INFORMATION

1. Specify the type of project (check one): Low Density High Density
 Drains to an Offsite Stormwater System Drainage Plan Other

If the project drains to an Offsite System, list the Stormwater Permit Number(s):

City of Wilmington:

State – NCDENR/DWQ:

2. Is the project currently covered (whole or in part) by an existing City or State (NCDENR/DWQ) Stormwater Permit? Yes No

If yes, list all applicable Stormwater Permit Numbers:

City of Wilmington: 2010014

State – NCDENR/DWQ:

3. Additional Project Permit Requirements (check all applicable):

CAMA Major Sedimentation/Erosion Control

NPDES Industrial Stormwater

404/401 Permit: Proposed Impacts:

If any of these permits have already been acquired please provide the Project Name, Project/Permit Number, issue date and the type of each permit:

III. CONTACT INFORMATION

1. Print Applicant / Signing Official's name and title (specifically the developer, property owner, lessee, designated government official, individual, etc. who owns the project):

Applicant / Organization: Wilmington Surgcare, L.P.

Signing Official & Title: James Shafer, Administrator

- a. Contact information for Applicant / Signing Official:

Street Address: 1801 S. 17th Street

City: Wilmington State: NC Zip: 28401

Phone: 910-763-4555 Fax: 910-332-8920 Email: jshafer@surgerypartners.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

- b. Please check the appropriate box. The applicant listed above is:

The property owner (Skip to item 3)

Lessee* (Attach a copy of the lease agreement and complete items 2 and 2a below)

Purchaser* (Attach a copy of the pending sales agreement and complete items 2 and 2a below)

Developer* (Complete items 2 and 2a below.)

2. Print Property Owner's name and title below, if you are the lessee, purchaser, or developer. (This is the person who owns the property that the project is on.)

Property Owner / Organization: WSC Properties, Inc.

Signing Official & Title: Thomas Maloy, President

- a. Contact information for Property Owner:

Street Address: 4205 Peachtree Avenue

City: Wilmington State: NC Zip: 28403

Phone: 910-799-2285 Fax: _____ Email: thomasmaloy@yahoo.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

3. (Optional) Print the name and title of another contact such as the project's construction supervisor or another person who can answer questions about the project:

Other Contact Person / Organization: Richard Collier/ McKim and Creed, Inc.

Signing Official & Title: _____

a. Contact information for person listed in item 3 above:

Street Address: 243 N. Front St

City: Wilmington State: NC Zip: 28401

Phone: 910-343-1048 Fax: _____ Email: rcollier@mckimcreed.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

IV. PROJECT INFORMATION

1. In the space provided below, briefly summarize how the stormwater runoff will be treated.

The stormwater runoff will be treated utilizing an existing wet retaining pond onsite in the southern portion of the property as well as an existing infiltration basin in the northeast quadrant of the site.

2. Total Property Area: 256,568 square feet

3. Total Coastal Wetlands Area: 0 square feet

4. Total Surface Water Area: 0 square feet

5. Total Property Area (2) – Total Coastal Wetlands Area (3) – Total Surface Water Area (4) = Total Project Area: 256,568 square feet.

6. Existing Impervious Surface within Property Area: 84,002 square feet

7. Existing Impervious Surface to be Removed/Demolished: 8,893 square feet

8. Existing Impervious Surface to Remain: 75,109 square feet

9. Total Onsite (within property boundary) Newly Constructed Impervious Surface (*in square feet*):

Buildings/Lots	8,996
Impervious Pavement	12,126
Pervious Pavement (adj. total, with % credit applied)	0
Impervious Sidewalks	982
Pervious Sidewalks (adj. total, with % credit applied)	0
Other (describe) generator/transformer	226
Future Development	0
Total Onsite Newly Constructed Impervious Surface	22,330

10. Total Onsite Impervious Surface

(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) = 97,439 square feet

11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 38.0 %

12. Total Offsite Newly Constructed Impervious Area (improvements made outside of property boundary, in square feet):

Impervious Pavement	10,536
Pervious Pavement (adj. total, with % credit applied)	0
Impervious Sidewalks	0
Pervious Sidewalks (adj. total, with % credit applied)	0
Other (describe)	0
Total Offsite Newly Constructed Impervious Surface	10,536

13. Total Newly Constructed Impervious Surface

(Total Onsite + Offsite Newly Constructed Impervious Surface) = 32,866 square feet

14. Complete the following information for each Stormwater BMP drainage area. If there are more than three drainage areas in the project, attach an additional sheet with the information for each area provided in the same format as below. Low Density projects may omit this section and skip to Section V.

Basin Information	WET POND BMP # 1	IB -1 BMP # 2	TOTAL SITE
Receiving Stream Name	Jumping Run Creek	Jumping Run Creek	Jumping Run Creek
Receiving Stream Index Number	18-76-13	18-76-13	18-76-13
Stream Classification	C; SW	C; SW	C; SW
Total Drainage Area (sf)	255,162	13,446	268,608
On-Site Drainage Area (sf)	238,556	13,446	251,980
Off-Site Drainage Area (sf)	16,606	0	16,606
Total Impervious Area (sf)	100,536	7,439	107,975
Buildings/Lots (sf)	8,996	0	8,996
Impervious Pavement (sf)	12,126	0	12,126
Pervious Pavement (sf)	0	0	0
Impervious Sidewalks (sf)	982	0	982
Pervious Sidewalks (sf)	0	0	0
Other (sf)	226	0	226
Future Development (sf)	0	0	0
Existing Impervious to remain (sf)	67,670	7,439	75,109
Offsite (sf)	10,536	0	10,536
Percent Impervious Area (%)	39.4%	55.3%	40.2%

15. How was the off-site impervious area listed above determined? Provide documentation:

The proposed driveway for CFCC will be treated by the wet pond on-site.

V. SUBMITTAL REQUIREMENTS

1. Supplemental and Operation & Maintenance Forms - One applicable City of Wilmington Stormwater BMP supplement form and checklist must be submitted for **each** BMP specified for this project. One applicable proposed operation and maintenance (O&M) form must be submitted for **each type** of stormwater BMP. Once approved, the operation and maintenance forms must be referenced on the final plat and recorded with the register of deeds office.
2. Deed Restrictions and Restrictive Covenants - For all subdivisions, outparcels, and future development, the appropriate property restrictions and protective covenants are required to be recorded prior to the sale of any lot. Due to variability in lot sizes or the proposed BUA allocations, a table listing each lot number, lot size, and the allowable built-upon area must be provided as an attachment to the completed and notarized deed restriction form. The appropriate deed restrictions and protective covenants forms can be downloaded at the link listed in section V (3). Download the latest versions for each submittal.

In instances where the applicant is different than the property owner, it is the responsibility of the property owner to sign the deed restrictions and protective covenants form while the applicant is responsible for ensuring that the deed restrictions are recorded.

By the notarized signature(s) below, the permit holder(s) certify that the recorded property restrictions and protective covenants for this project, if required, shall include all the items required in the permit and listed on the forms available on the website, that the covenants will be binding on all parties and persons claiming under them, that they will run with the land, that the required covenants cannot be changed or deleted without concurrence from the City of Wilmington, and that they will be recorded prior to the sale of any lot.

3. Only complete application packages will be accepted and reviewed by the City. A complete package includes all of the items listed on the City Engineering Plan Review Checklist, including the fee. Copies of the Engineering Plan Review Checklist, all Forms, Deed Restrictions as well as detailed instructions on how to complete this application form may be downloaded from:

<http://www.wilmingtonnc.gov/PublicServices/Engineering/PlanReview/StormwaterPermits.aspx>

The complete application package should be submitted to the following address:

City of Wilmington – Engineering
Plan Review Section
212 Operations Center Dr
Wilmington, NC 28412

VI. CONSULTANT INFORMATION AND AUTHORIZATION

1. Applicant: Complete this section if you wish to designate authority to another individual and/or firm (such as a consulting engineer and /or firm) so that they may provide information on your behalf for this project (such as addressing requests for additional information).

Consulting Engineer: Richard M. Collier, PE

Consulting Firm: McKim & Creed, Inc.

a. Contact information for consultant listed above:

Mailing Address: 243 N. Front. Street

City: Wilmington State: NC Zip: 28401

Phone: 910-343-1048 Fax: 910-251-8282 Email: rcollier@mckimcreed.com

VII. PROPERTY OWNER AUTHORIZATION (If Section III(2) has been filled out, complete this section)

I, (print or type name of person listed in Contact Information, item 2) Thomas Maloy, certify that I own the property identified in this permit application, and thus give permission to (print or type name of person listed in Contact Information, item 1) James Shafer with (print or type name of organization listed in Contact Information, item 1) Wilmington Surgcare, L.P. to develop the project as currently proposed. A copy of the lease agreement or pending property sales contract has been provided with the submittal, which indicates the party responsible for the operation and maintenance of the stormwater system.

As the legal property owner I acknowledge, understand, and agree by my signature below, that if my designated agent (entity listed in Contact Information, item 1) dissolves their company and/or cancels or defaults on their lease agreement, or pending sale, responsibility for compliance with the City of Wilmington Stormwater Permit reverts back to me, the property owner. As the property owner, it is my responsibility to notify the City of Wilmington immediately and submit a completed Name/Ownership Change Form within 30 days; otherwise I will be operating a stormwater treatment facility without a valid permit. I understand that the operation of a stormwater treatment facility without a valid permit is a violation of the City of Wilmington Municipal Code of Ordinances and may result in appropriate enforcement including the assessment of civil penalties.

SEAL

Signature: Thomas H. Maloy
25th Date: August 2021

STEPHANIE NICHOLE MARTIN
Notary Public
New Hanover Co., North Carolina
My Commission Expires May 02, 2026

I, Stephanie Nichole Martin, a Notary Public for the State of North Carolina, County of New Hanover do hereby certify that Thomas Maloy personally appeared before me this day of August 25, 2021.

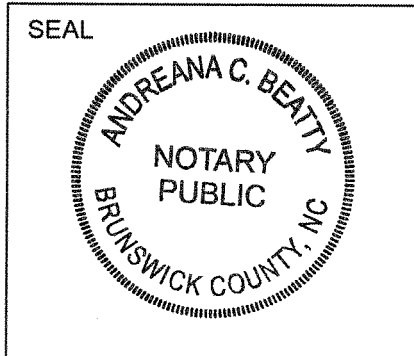
and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

Stephanie Nichole Martin

My commission expires: May 02, 2026

VIII. APPLICANT'S CERTIFICATION

I, (print or type name of person listed in Contact Information, item 1) James Shafer certify that the information included on this permit application form is, to the best of my knowledge, correct and that the project will be constructed in conformance with the approved plans, that the required deed restrictions and protective covenants will be recorded, and that the proposed project complies with the requirements of the applicable stormwater rules under.



Signature: *James M. Shafer*
Date: 8/25/21

I, Andreana C. Beatty, a Notary Public for the State of North Carolina, County of Brunswick, do hereby certify that James Shafer personally appeared before me this day of August 25, 2021, and acknowledge the due execution of the application for a stormwater

permit. Witness my hand and official seal,

Andreana C. Beatty
My commission expires: April 27, 2025

STORMWATER MANAGEMENT PERMIT APPLICATION FORM
401 CERTIFICATION APPLICATION FORM
WET DETENTION BASIN SUPPLEMENT

This form must be filled out, printed and submitted.

The Required Items Checklist (Part III) must be printed, filled out and submitted along with all of the required information.

I. PROJECT INFORMATION

Project name	Wilmington Surgcare Expansion
Contact person	Richard Collier, PE
Phone number	910-343-1048
Date	20-Jul-21
Drainage area number	1

II. DESIGN INFORMATION
Site Characteristics

Drainage area	255,140 ft ²
Impervious area, post-development	100,624 ft ²
% impervious	39.44 %
Design rainfall depth	1.0 in

Storage Volume: Non-SA Waters

Minimum volume required	7,594 ft ³	Insufficient required volume.
Volume provided	15,135 ft ³	OK, volume provided is equal to or in excess of volume required.

Storage Volume: SA Waters

1.5" runoff volume	ft ³
Pre-development 1-yr, 24-hr runoff	ft ³
Post-development 1-yr, 24-hr runoff	ft ³
Minimum volume required	ft ³
Volume provided	ft ³

Peak Flow Calculations

Is the pre/post control of the 1yr 24hr storm peak flow required?	N	(Y or N)
1-yr, 24-hr rainfall depth	in	NEW HANOVER COUNTY
Rational C, pre-development	(unitless)	
Rational C, post-development	(unitless)	
Rainfall intensity: 1-yr, 24-hr storm	in/hr	
Pre-development 1-yr, 24-hr peak flow	4.53 ft ³ /sec	
Post-development 1-yr, 24-hr peak flow	9.64 ft ³ /sec	
Pre/Post 1-yr, 24-hr peak flow control	5.11 ft ³ /sec	

Elevations

Temporary pool elevation	17.00 fmsl	
Permanent pool elevation	14.88 fmsl	
SHWT elevation (approx. at the perm. pool elevation)	fmsl	
Top of 10ft vegetated shelf elevation	N/A fmsl	
Bottom of 10ft vegetated shelf elevation	N/A fmsl	Data not needed for calculation option #1, but OK if provided.
Sediment cleanout, top elevation (bottom of pond)	10.00 fmsl	
Sediment cleanout, bottom elevation	9.00 fmsl	Data not needed for calculation option #1, but OK if provided.
Sediment storage provided	1.00 ft	
Is there additional volume stored above the state-required temp. pool?	N	(Y or N)
Elevation of the top of the additional volume	17.0 fmsl	OK

II. DESIGN INFORMATION
Surface Areas

Area, temporary pool	8,578	ft ²	
Area REQUIRED, permanent pool	6,055	ft ²	
SA/DA ratio	2.37	(unitless)	
Area PROVIDED, permanent pool, A_{perm_pool}	6,087	ft ²	OK
Area, bottom of 10ft vegetated shelf, A_{bot_shelf}		ft ²	
Area, sediment cleanout, top elevation (bottom of pond), A_{bot_pond}	1,356	ft ²	

Volumes

Volume, temporary pool	15,135	ft ³	OK
Volume, permanent pool, V_{perm_pool}	15,727	ft ³	
Volume, forebay (sum of forebays if more than one forebay)	721	ft ³	
Forebay % of permanent pool volume	4.6%	%	Insufficient forebay volume.

SA/DA Table Data

Design TSS removal	85	%	
Coastal SA/DA Table Used?	Y	(Y or N)	
Mountain/Piedmont SA/DA Table Used?	N	(Y or N)	
SA/DA ratio	2.37	(unitless)	
Average depth (used in SA/DA table):			
Calculation option 1 used? (See Figure 10-2b)	Y	(Y or N)	
Volume, permanent pool, V_{perm_pool}	15,727	ft ³	
Area provided, permanent pool, A_{perm_pool}	5,465	ft ²	
Average depth calculated	3.62	ft	OK
Average depth used in SA/DA, d_{av} , (Round to nearest 0.5ft)	3.6	ft	OK
Calculation option 2 used? (See Figure 10-2b)	N	(Y or N)	
Area provided, permanent pool, A_{perm_pool}	6,087	ft ²	
Area, bottom of 10ft vegetated shelf, A_{bot_shelf}		ft ²	
Area, sediment cleanout, top elevation (bottom of pond), A_{bot_pond}	1,356	ft ²	
"Depth" (distance b/w bottom of 10ft shelf and top of sediment)		ft	
Average depth calculated		ft	
Average depth used in SA/DA, d_{av} , (Round to nearest 0.5ft)		ft	

Drawdown Calculations

Drawdown through orifice?	Y	(Y or N)	
Diameter of orifice (if circular)	1.00	in	
Area of orifice (if non-circular)		in ²	
Coefficient of discharge (C_D)	0.60	(unitless)	
Driving head (H_o)	2.16	ft	
Drawdown through weir?	N	(Y or N)	
Weir type		(unitless)	
Coefficient of discharge (C_w)		(unitless)	
Length of weir (L)		ft	
Driving head (H)		ft	
Pre-development 1-yr, 24-hr peak flow	4.53	ft ³ /sec	
Post-development 1-yr, 24-hr peak flow	9.64	ft ³ /sec	
Storage volume discharge rate (through discharge orifice or weir)	0.02	ft ³ /sec	
Storage volume drawdown time	3.94	days	OK, draws down in 2-5 days.

Additional Information

Vegetated side slopes	3	:1	OK
Vegetated shelf slope		:1	
Vegetated shelf width		ft	
Length of flowpath to width ratio	3	:1	OK
Length to width ratio	2.0	:1	OK
Trash rack for overflow & orifice?	Y	(Y or N)	OK
Freeboard provided	1.0	ft	OK
Vegetated filter provided?	N	(Y or N)	Insufficient. Vegetated filter required.
Recorded drainage easement provided?		(Y or N)	
Capures all runoff at ultimate build-out?	Y	(Y or N)	OK
Drain mechanism for maintenance or emergencies is:	Gate Valve / Pump		

STORMWATER MANAGEMENT PERMIT APPLICATION FORM
401 CERTIFICATION APPLICATION FORM

INFILTRATION BASIN SUPPLEMENT

This form must be filled out, printed and submitted.

The Required Items Checklist (Part III) must be printed, filled out and submitted along with all of the required information.

I. PROJECT INFORMATION

Project Name	Wilmington Surgcare Expansion
Contact Person	Richard Collier, PE
Phone Number	910-343-1048
Date	8-Jan-20
Drainage Area Number	2

II. DESIGN INFORMATION

Site Characteristics

Drainage area	13,446.00	ft ²
Impervious area	7,439.00	ft ²
Percent impervious	0.55	%
Design rainfall depth	1.50	in

Peak Flow Calculations

1-yr, 24-hr rainfall depth	3.80	in
1-yr, 24-hr intensity		in/hr
Pre-development 1-yr, 24-hr discharge	0.26	ft ³ /sec
Post-development 1-yr, 24-hr discharge	0.88	ft ³ /sec
Pre/Post 1-yr, 24-hr peak flow control	0.62	ft ³ /sec

Storage Volume: Non-SA Waters

Minimum design volume required	921.00	ft ³
Design volume provided	926.00	ft ³

OK for non-SA waters

Storage Volume: SA Waters

1.5" runoff volume		ft ³
Pre-development 1-yr, 24-hr runoff volume		ft ³
Post-development 1-yr, 24-hr runoff volume		ft ³
Minimum required volume		ft ³
Volume provided		ft ³

Soils Report Summary

Soil type	Seagate	
Infiltration rate	6.60	in/hr
SHWT elevation	23.50	fmsl

Basin Design Parameters

Drawdown time	0.36	days	OK
Basin side slopes	3.00	:1	OK
Basin bottom elevation	25.50	fmsl	OK
Storage elevation	26.50	fmsl	
Storage Surface Area	1,420.00	ft ²	
Top elevation	27.00	fmsl	

Basin Bottom Dimensions

Basin length	90.00	ft
Basin width	10.00	ft
Bottom Surface Area	900.00	ft ²

Additional Information

Maximum runoff to each inlet to the basin?
 Length of vegetative filter for overflow
 Distance to structure
 Distance from surface waters
 Distance from water supply well(s)
 Separation from impervious soil layer
 Naturally occurring soil above shwt
 Bottom covered with 4-in of clean sand?
 Proposed drainage easement provided?
 Captures all runoff at ultimate build-out?
 Bypass provided for larger storms?
 Pretreatment device provided

0.50	ac-in	OK
50.00	ft	OK
155.00	ft	OK
n/a	ft	OK
n/a	ft	OK
n/a	ft	OK
2.00	ft	OK
y	(Y or N)	OK
y	(Y or N)	OK
y	(Y or N)	OK
y	(Y or N)	OK

Wet Detention Basin Operation and Maintenance Agreement

I will keep a maintenance record on this BMP. This maintenance record will be kept in a log in a known set location. Any deficient BMP elements noted in the inspection will be corrected, repaired or replaced immediately. These deficiencies can affect the integrity of structures, safety of the public, and the removal efficiency of the BMP.

The wet detention basin system is defined as the wet detention basin, pretreatment including forebays and the vegetated filter if one is provided.

This system (check one):

☐ does ☒ does not incorporate a vegetated filter at the outlet.

This system (check one):

☒ does ☐ does not incorporate pretreatment other than a forebay.

Important maintenance procedures:

- Immediately after the wet detention basin is established, the plants on the vegetated shelf and perimeter of the basin should be watered twice weekly if needed, until the plants become established (commonly six weeks).
- No portion of the wet detention pond should be fertilized after the first initial fertilization that is required to establish the plants on the vegetated shelf.
- Stable groundcover should be maintained in the drainage area to reduce the sediment load to the wet detention basin.
- If the basin must be drained for an emergency or to perform maintenance, the flushing of sediment through the emergency drain should be minimized to the maximum extent practical.
- Once a year, a dam safety expert should inspect the embankment.

After the wet detention pond is established, it should be inspected **once a month and within 24 hours after every storm event greater than 1.5 inches**. Records of operation and maintenance should be kept in a known set location and must be available upon request. Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

BMP element:	Potential problem:	How I will remediate the problem:
The entire BMP	Trash/debris is present.	Remove the trash/debris.
The side slopes of the wet detention basin	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application.
	Vegetation is too short or too long.	Maintain vegetation at a height of approximately six inches.

Permit Number: _____
 (to be provided by City of Wilmington)
 BMP Drainage Basin #: _____

BMP element:	Potential problem:	How I will remediate the problem:
The inlet device: pipe or swale	The pipe is clogged.	Unclog the pipe. Dispose of the sediment off-site.
	The pipe is cracked or otherwise damaged.	Replace the pipe.
	Erosion is occurring in the swale.	Regrade the swale if necessary to smooth it over and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.
The forebay	Sediment has accumulated to a depth greater than the original design depth for sediment storage.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the BMP.
	Erosion has occurred.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
	Weeds are present.	Remove the weeds, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.
The vegetated shelf	Best professional practices show that pruning is needed to maintain optimal plant health.	Prune according to best professional practices
	The plant community and coverage is significantly (>25%) different from approved landscape plan.	Restore plant vegetation to approved condition. If landscape plan needs to be adjusted to specify vegetation more appropriate for site conditions, contact City Stormwater or Engineering Staff.
	Cattails or other invasive plants cover >25% of the veg't shelf. A monoculture of plants must be avoided)	Remove all invasives by physical removal or by wiping them with pesticide (do not spray) – consult a professional.
	Plants are dead, diseased or dying.	Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if a soil test indicates it is necessary.
The main treatment area	Sediment has accumulated to a depth greater than the original design sediment storage depth.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the BMP.

Permit Number: _____
 (to be provided by City of Wilmington)
 BMP Drainage Basin #: _____

BMP element:	Potential problem:	How I will remediate the problem:
The main treatment area (continued)	Algal growth covers over 25% of the area.	Consult a professional to remove and control the algal growth.
	Cattails or other invasive plants cover >25% of the veg't shelf. A monoculture of plants must be avoided)	Remove all invasives by physical removal or by wiping them with pesticide (do not spray) – consult a professional.
The embankment	Shrubs have started to grow on the embankment.	Remove shrubs immediately.
	Evidence of muskrat or beaver activity is present.	Use traps to remove muskrats and consult a professional to remove beavers.
	A tree has started to grow on the embankment.	Consult a dam safety specialist to remove the tree.
	An annual inspection by an appropriate professional shows that the embankment needs repair. (if applicable)	Make all needed repairs.
The outlet device	Clogging has occurred.	Clean out the outlet device. Dispose of the sediment off-site.
	The outlet device is damaged	Repair or replace the outlet device.
The receiving water	Erosion or other signs of damage have occurred at the outlet.	Contact the local NC Division of Water Quality Regional Office, or the 401 Oversight Unit at 919-733-1786.

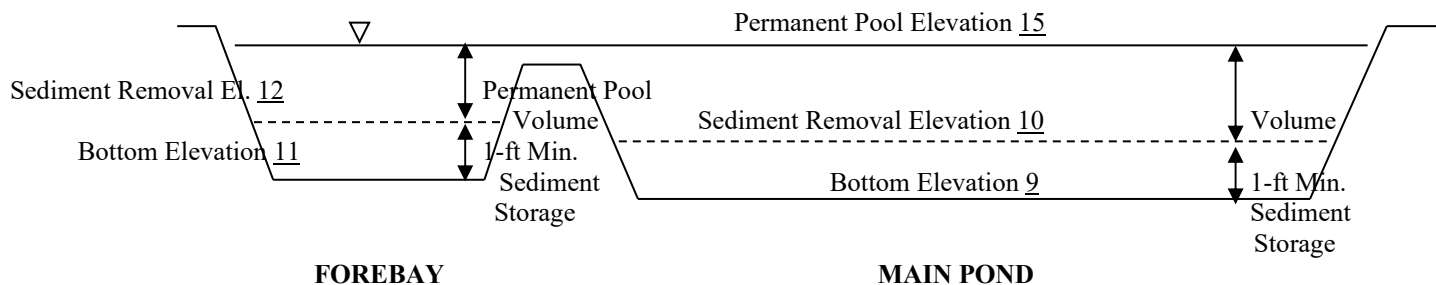
The measuring device used to determine the sediment elevation shall be such that it will give an accurate depth reading and not readily penetrate into accumulated sediments.

When the permanent pool depth reads 3 feet in the main pond, the sediment shall be removed.

When the permanent pool depth reads 3 feet in the forebay, the sediment shall be removed.

BASIN DIAGRAM

(fill in the blanks)



Permit Number: _____
(to be provided by City of Wilmington)

I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above. I agree to notify the City of Wilmington of any problems with the system or prior to any changes to the system or responsible party.

Project name: Wilmington Surgcare Expansion

BMP drainage basin number: 1

Print name: James Shafer

Title: Administrator

Address: 1801 S. 17th Street

Phone: 910-763-4555

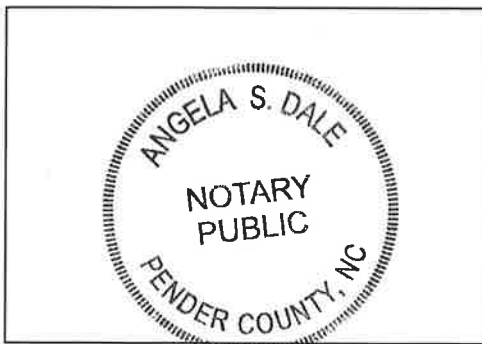
Signature: _____

Date: _____

James M. Shafer
1/29/2020

Note: The legally responsible party should not be a homeowners association unless more than 50% of the lots have been sold and a resident of the subdivision has been named the president.

I, Angela S Dale, a Notary Public for the State of
North Carolina, County of New Hanover, do hereby certify that
James M Shafer personally appeared before me this 24th
day of January, 2020, and acknowledge the due execution of the
forgoing wet detention basin maintenance requirements. Witness my hand and official
seal,



SEAL

My commission expires June 28, 2022

Infiltration Basin Operation and Maintenance Agreement

I will keep a maintenance record on this BMP. This maintenance record will be kept in a log in a known set location. Any deficient BMP elements noted in the inspection will be corrected, repaired or replaced immediately. These deficiencies can affect the integrity of structures, safety of the public, and the removal efficiency of the BMP.

Important maintenance procedures:

- The drainage area will be carefully managed to reduce the sediment load to the infiltration basin.
- Immediately after the infiltration basin is established, the vegetation will be watered twice weekly if needed until the plants become established (commonly six weeks).
- No portion of the infiltration basin will be fertilized after the initial fertilization that is required to establish the vegetation.
- The vegetation in and around the basin will be maintained at a height of approximately six inches.

After the infiltration basin is established, it will be inspected **once a quarter and within 24 hours after every storm event greater than 1.5 inches**. Records of operation and maintenance will be kept in a known set location and will be available upon request.

Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

BMP element:	Potential problem:	How I will remediate the problem:
The entire BMP	Trash/debris is present.	Remove the trash/debris.
The perimeter of the infiltration basin	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application.
The inlet device: pipe or swale	The pipe is clogged (if applicable).	Unclog the pipe. Dispose of the sediment off-site.
	The pipe is cracked or otherwise damaged (if applicable).	Replace the pipe.
	Erosion is occurring in the swale (if applicable).	Regrade the swale if necessary to smooth it over and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.

BMP element:	Potential problem:	How I will remediate the problem:
The forebay	Sediment has accumulated and reduced the depth to 75% of the original design depth.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the BMP.
	Erosion has occurred or riprap is displaced.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
	Weeds are present.	Remove the weeds, preferably by hand. If pesticides are used, wipe them on the plants rather than spraying.
The main treatment area	A visible layer of sediment has accumulated.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the BMP. Replace any media that was removed in the process. Revegetate disturbed areas immediately.
	Water is standing more than 5 days after a storm event.	Replace the top few inches of filter media and see if this corrects the standing water problem. If so, revegetate immediately. If not, consult an appropriate professional for a more extensive repair.
	Weeds and noxious plants are growing in the main treatment area.	Remove the plants by hand or by wiping them with pesticide (do not spray).
The embankment	Shrubs or trees have started to grow on the embankment.	Remove shrubs or trees immediately.
	An annual inspection by an appropriate professional shows that the embankment needs repair.	Make all needed repairs.
The outlet device	Clogging has occurred.	Clean out the outlet device. Dispose of the sediment off-site.
	The outlet device is damaged	Repair or replace the outlet device.
The receiving water	Erosion or other signs of damage have occurred at the outlet.	Contact the NC Division of Water Quality 401 Oversight Unit at 919-733-1786.

Permit Number: _____
(to be provided by City of Wilmington)

I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above. I agree to notify the City of Wilmington of any problems with the system or prior to any changes to the system or responsible party.

Project name: Wilmington Surgcare

Expansion _____

BMP drainage basin number: 2

Print name: James Shafer

Title: Administrator

Address: 1801 S. 17th Street

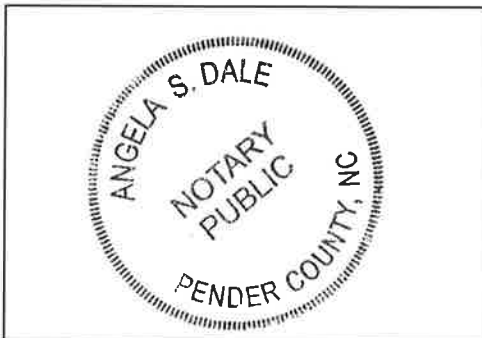
Phone: 910-763-4555

Signature: James M. Shafer

Date: 1/24/2020

Note: The legally responsible party should not be a homeowners association unless more than 50% of the lots have been sold and a resident of the subdivision has been named the president.

I, Angela S. Dale, a Notary Public for the State of North Carolina, County of New Hanover, do hereby certify that James M. Shafer personally appeared before me this 24th day of January, 2020, and acknowledge the due execution of the forgoing infiltration basin maintenance requirements. Witness my hand and official seal,



SEAL

My commission expires June 28, 2022

Permit Number: _____
(to be provided by City of Wilmington)