



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

#### COMPREHENSIVE STORMWATER MANAGEMENT PERMIT

#### HIGH DENSITY DEVELOPMENT

#### **SECTION 1 – APPROVAL**

Having reviewed the application and all supporting materials, the City of Wilmington has determined that the application is complete and the proposed development meets the requirements of the City of Wilmington's Comprehensive Stormwater Ordinance.

PERMIT HOLDER: Par 5 Development Group, LLC

PROJECT:

Dollar General-Wilmington-Carolina Beach Road

ADDRESS:

3606 Carolina Beach Road

PERMIT #:

2018021

DATE:

May 23, 2018

Therefore, the above referenced site is hereby approved and subject to all conditions set forth in Section 2 of this approval and all applicable provisions of the City of Wilmington Comprehensive Stormwater Management Ordinance.

This permit shall be effective from the date of issuance until May 23, 2028 and shall be subject to the following specified conditions and limitations:

#### Section 2 - CONDITIONS

- 1. This approval is valid only for the stormwater management system as proposed on the approved stormwater management plans dated May 18, 2018.
- 2. The project will be limited to the amount and type of built-upon area indicated in Section IV of the Stormwater Management Application Form submitted as part of the approved stormwater permit application package, and per the approved plans.
- 3. This permit shall become void unless the facilities are constructed in accordance with the approved stormwater management plans, specifications and supporting documentation, including information provided in the application and supplements.
- 4. The runoff from all built-upon area within any permitted drainage area must be directed into the permitted stormwater control system for that drainage area.





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- 5. The permittee shall submit a revised stormwater management application packet to the City of Wilmington and shall have received approval prior to construction, for any modification to the approved plans, including, but not limited to, those listed below:
  - a. Any revision to any item shown on the approved plans, including the stormwater management measures, built-upon area, details, etc.
  - b. Redesign or addition to the approved amount of built-upon area or to the drainage area.
  - c. Further subdivision, acquisition, lease or sale of any part of the project area.
  - d. Filling in, altering, or piping of any vegetative conveyance shown on the approved plan.
  - e. Construction of any permitted future areas shown on the approved plans.
- 6. A copy of the approved plans and specifications shall be maintained on file by the Permittee.
- 7. During construction, erosion shall be kept to a minimum and any eroded areas of the system will be repaired immediately.
- 8. If the stormwater system was used as an Erosion Control device, it must be restored to design condition prior to operation as a stormwater treatment device, and prior to issuance of any certificate of occupancy for the project.
- 9. All areas must be maintained in a permanently stabilized condition. If vegetated, permanent seeding requirements must follow the guidelines established in the North Carolina Erosion and Sediment Control Planning and Design Manual unless an alternative is specified and approved by the City of Wilmington.
- 10. All applicable operation & maintenance agreements and easements pertaining to each stormwater treatment system shall be referenced on the final plat and recorded with the Register of Deeds upon final plat approval. If no plat is recorded for the site the operation and maintenance agreements and easements shall be recorded with the Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching standards.
- 11. The stormwater management system shall be constructed in its entirety, vegetated and operational for its intended use prior to the construction of any built-upon surface unless prior approval is obtained. City Staff must be notified of any deviation prior to construction of the built-upon surface. Any deviation request shall include justification and must propose an alternative timeline or construction sequence. Notification shall not constitute approval. Any alternative timeline approved by City staff shall become an enforceable component of this permit.





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12. The permittee shall at all times provide the operation and maintenance necessary to assure the permitted stormwater system functions at optimum efficiency. The approved Operation and Maintenance Agreement must be followed in its entirety and maintenance must occur at the scheduled intervals including, but not limited to:

a. Scheduled inspections (interval noted on the agreement).

b. Sediment removal.

Moving and revegetation of slopes and the vegetated areas.

d. Maintenance of landscape plants, including those within the landscape buffer and on the vegetated shelf.

e. Immediate repair of eroded areas, especially slopes.

- f. Debris removal and unclogging of outlet structure, orifice device, flow spreader, catch basins and/or piping.
- g. Access to the outlet structure must be available at all times.
- 13. Records of inspection, maintenance and repair for the permitted stormwater system must be kept by the permittee for at least 5 years from the date of record and made available upon request to authorized personnel of the City of Wilmington. The records will indicate the date, activity, name of person performing the work and what actions were taken.
- 14. Upon completion of construction, before a Certificate of Occupancy shall be granted, and prior to operation or intended use of this permitted facility, the applicant shall submit to the City of Wilmington as-built plans for all stormwater management facilities. The plans shall show the final design specifications and the field location, type, depth, invert and planted vegetation of all measures, controls and devices, as-installed. A certification shall be submitted, along with all supporting documentation that specifies, under seal that the as-built stormwater measures, controls and devices are in compliance with the approved stormwater management plans. A final inspection by City of Wilmington personnel will be required prior to issuance of a certificate of occupancy or operation of the permitted facility.
- 15. This permit is not transferable except after application and approval by the City of Wilmington. In the event of a change of ownership, name change or change of address the permittee must submit a completed Name/Ownership Change form to the City of Wilmington at least 30 days prior to the change. It shall be signed by all applicable parties, and be accompanied by all required supporting documentation. Submittal of a complete application shall not be construed as an approved application. The application will be reviewed on its own merits by the City of Wilmington and may or may not be approved. The project must be in compliance with the terms of this permit in order for the transfer request to be considered. The permittee is responsible for compliance with all permit conditions until such time as the City of Wilmington approves the transfer request. Neither the sale of the project nor the conveyance of common area to a third party should be considered as an approved transfer of the permit.
- 16. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to enforcement action by the City of Wilmington, in accordance with Sections 18-52 and 18-53 and any other applicable section of the Land Development Code.





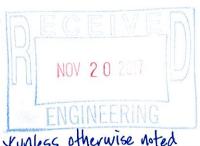
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- 17. The City of Wilmington may notify the permittee when the permitted site does not meet one or more of the minimum requirements of the permit. Within the time frame specified in the notice, the permittee shall submit a written time schedule to the City of Wilmington for modifying the site to meet minimum requirements. The permittee shall provide copies of revised plans and certification in writing to the City of Wilmington that the changes have been made.
- 18. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other government agencies (local, state, and federal) having jurisdiction.
- 19. In the event that the facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those as may be required by the City of Wilmington, such as the construction of additional or replacement stormwater management systems.
- 20. The permittee grants City of Wilmington Staff permission to enter the property during normal business hours for the purpose of inspecting all components of the permitted stormwater management facility.
- 21. The permit issued shall continue in force and effect until revoked or terminated by the City of Wilmington. The permit may be modified, revoked and reissued or terminated for cause. The filing of a request for a permit modification, revocation and re-issuance or termination does not stay any permit condition.
- 22. The approved stormwater management plans and all documentation submitted as part of the approved stormwater management permit application package for this project are incorporated by reference and are enforceable parts of the permit.
- 23. The permittee shall submit a renewal request with all required forms and documentation at least 180 days prior to the expiration date of this permit.
- 24. If any one or more of the conditions of this permit is found to be unenforceable or otherwise invalidated, all remaining conditions shall remain in full effect.

Stormwater Management Permit issued this the 23rd day of May, 2018.

for Sterling Cheatham, City Manager

City of Wilmington





Public Services
Engineering
414 Chestnut St, Suite 200
Wilmington, NC 28401
910 341-7807
910 341-5881 fax
wilmingtonnc.gov
Dial 711 TTY/Volce



#### STORMWATER MANAGEMENT PERMIT APPLICATION FORM (Form SWP 2.2)

N+T#11033 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.): Dollar General - Wilmington - Carolina Beach Road Location of Project (street address): 3606 Carolina Beach Road Zip: \_\_\_\_\_ City: Wilmington County: New Hanover 3. Directions to project (from nearest major intersection): From the corner of US Hwy. 421 & US Hwy. 117, travel South on US 421 for ~4,200'. The project is on the right. II. PERMIT INFORMATION 1. Specify the type of project (check one): Low Density X 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 X No If yes, list all applicable Stormwater Permit Numbers: City of Wilmington: \_\_\_\_\_ 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:

All required permit submittals are in for review with regulatory agencies.



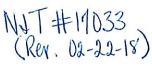


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#### III. CONTACT INFORMATION

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: Par 5 Development Group, LLC			
	Signing Official & Title: Rudy L. Pittman, Managing Member		
	a. Contact information for Applicant / Signing Official:     Street Address: 2075 Juniper Lake Road		
	City: West End State: NC Zip: 27376		
	Phone: 910-944-0881 Fax: 910-944-0882 Email: jody@par5development.com		
Mailing Address (if different than physical address): N/A			
	City:State:Zip:		
2.	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.)    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:		
	Street Address:		
	Phone:Fax:Email:		
	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:		
	Signing Official & Title:		





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	<ul> <li>a. Contact information for person listed in item 3 about</li> </ul>	ove:
	Street Address:	
	City:State	e:Zip:
	Phone:Fax:Email	íl:
	Mailing Address (if different than physical address): _	
	City:State	
13.7		
IV.	. PROJECT INFORMATION	
1.	In the space provided below, briefly summarize how the s	stormwater runoff will be treated.
	Stormwater is treated in wet pond.	
2.	Total Property Area: 65,351 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) Project Area: 65,351 square feet.	s) – Total Surface Water Area (4) = Total
6.	Existing Impervious Surface within Property Area: 0	square feet
7.	Existing Impervious Surface to be Removed/Demolished:	square feet
8.		
9.		ā
٠.		
	Buildings/Lots	9,100
	Impervious Pavement	19,267
	Pervious Pavement (adj. total, with % credit applied)	0
	Impervious Sidewalks	3,041
	Pervious Sidewalks (adj. total, with % credit applied)	0
	Other (describe)	0
	Future Development	2,768
	Total Onsite Newly Constructed Impervious Surface	34,176
	. Total Onsite Impervious Surface (Existing Impervious Surface to remain + Onsite Newly Constructed Im . Project percent of impervious area: (Total Onsite Impervious S	





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

Impervious Pavement	527
Pervious Pavement (adj. total, with % cred	lit applied) 0
Impervious Sidewalks	910
Pervious Sidewalks (adj. total, with % cred	lit applied) 0
Other (describe)	0
Total Offsite Newly Constructed Impervious Su	rface 1,437

13. Total Newly Constructed Impervious Surface	
(Total Onsite + Offsite Newly Constructed Impervious Surface) =	35613 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	(Type of BMP) BMP #	(Type of BMP) BMP #	(Type of BMP) BMP #
Receiving Stream Name	UT Barnards Creek		
Receiving Stream Index Number	18-80		
Stream Classification	C; Sw		
Total Drainage Area (sf)	49362	0	0
On-Site Drainage Area (sf)	49362		
Off-Site Drainage Area (sf)	0		
Total Impervious Area (sf)	34176	0	0
Buildings/Lots (sf)	9100		
Impervious Pavement (sf)	19267		
Pervious Pavement, % credit (sf)	0		
Impervious Sidewalks (sf)	3041		
Pervious Sidewalks, % credit (sf)	0		
Other (sf)	0		
Future Development (sf)	2768		
Existing Impervious to remain (sf)	0		
Offsite (sf)	0		
Percent Impervious Area (%)	69.2		

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



#### V. SUBMITTAL REQUIREMENTS

- 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 414 Chestnut Street, Suite 200 Wilmington, NC 28402



#### VI. CONSULTANT INFORMATION AND AUTHORIZATION

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: J. Phillip Norris, P.E.			
Consulting Firm: Norris & Tunstall Consulting Engineers, P.C.			
a. Contact information for consultant listed above:			
Mailing Address: 1429 A	sh - Little River Road		
City: Ash	State: NC Zip: 28420		
Phone: 910-287-5900	Fax: 910-287-5902 Email: pnorris@ntenglneers.com		
VII. PROPERTY OWNER AUTHORIZATION (If Section III(2) has been filled out, complete this section)			
own the property identified in thi person listed in Contact Information, item 1) _ proposed. A copy of the lease a the submittal, which indicates th stormwater system.  As the legal property owner i ac designated agent (entity listed in defaults on their lease agreemet Wilmington Stormwater Permit r responsibility to notify the City of Change Form within 30 days; ot valid permit. I understand that the	is permit application, and thus give permission to (print or type name of mit 1) with (print or type name of organization to develop the project as currently greement or pending property sales contract has been provided with the party responsible for the operation and maintenance of the knowledge, understand, and agree by my signature below, that if my Contact Information, item 1) dissolves their company and/or cancels or not, or pending sale, responsibility for compliance with the City of reverts back to me, the property owner. As the property owner, it is my f Wilmington immediately and submit a completed Name/Ownership therwise I will be operating a stormwater treatment facility without a report of civil penalties.		
Signature:	Date:		
SEAL	I,, a Notary Public for the  State of, County of, do  hereby certify that  personally appeared before me this day of,  and acknowledge the due execution of the application for a stormwater  permit. Witness my hand and official seal,		
	My commission expires:		



#### VIII. APPLICANT'S CERTIFICATION

I, (print or type name of person listed in	Contact Information, item 1), Rudy L. Pittman, Managing Member	certify			
that the information included on	hat the information included on this permit application form is, to the best of my knowledge, correct and				
that the project will be constructed	ed in conformance with the approved plans, that the required	d deed			
estrictions and protective covenants will be regorded, and that the proposed project complies with the					
equirements of the applicable stormwater rules under					
	oquiromonio of the applicable stormwater parce ander.				
Signature:					
Date. Gall					
054	1. Al Jose / Sissi.	l' <b></b>			
SEAL	I, Chelses L. Swain , a Notary Pub	lic for the			
MINIMUM INTO	State of North Carolina, County of Moore	, do			
SEA L. SWILL	hereby certify that R. Lee Pithman				
Notary Public 7	personally appeared before me this day of _\underset 21	, 2017,			
Moore County My Comm. Exp.  12 14 202 7	and acknowledge the due execution of the application for a sto	rmwater			
My Comm. Exp.	permit. Witness my hand and official seal,				
1 15 17 17 1205 14 1					
THE PTH CAROLINIA	Museuminian aurina 10/14/0/47/1				
The CAR	My commission expires: 12/14/267				

# SUPPLEMENT-EZ FORM COVER PAGE



Please indicate the types, quantities and locations of SCMs that will be used on this project:

	Quantity	Location(s)
Infiltration System		
Bioretention Cell		
Wet Pond		See Plans
Stormwater Wetland		
Permeable Pavement		
Sand Filter		
Rainwater Harvesting		
Green Roof		
Level Spreader-Filter Strip		
Disconnected Impervious Surface		
Treatment Swale		
Dry Pond		

N4T#17033

Project Name:

Dollar General - Wilmington - Carolina Beach Road

Address

3606 Carolina Beach Road

City / Town

Wilmington, NC

Designer information for this project:

Name and Title:	T. Jason Clark, P.E.	
Organization:	Norris & Tunstall Consulting Engineers, P.C.	
Street address:	902 Market Street	1
City, State, Zip:	Wilmington, NC 28401	
Phone number(s):	910-343-9653	13
Email:	jclark@ntengineers.com	

**Applicant**:

Company:	Par 5 Development Group, LLC
Contact:	Rudy L. Pittman, Managing Member
Mailing Address:	Mailing Address: 2075 Juniper Lake Road
City, State, Zip:	City, State, Zip: West End, NC 27376
Phone number(s): 910-944-0881	910-944-0881
Email:	iodv@par5development.com

### Designer



Signature of Designer

Date

## Certification Statement

- I certify, under penalty of law: that this Supplement-EZ form and all supporting information were prepared under my direction or supervision;
  - that the information provided in the form is, to the best of my knowledge
  - and belief, true, accurate, and complete; and
- that the engineering plans, specifications, operation and maintenance agreements and other supporting information are consistent with the information provided here.

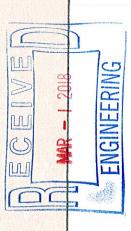
information including the possibility of fines and imprisonment for knowing violations as well as a report being made to my professional board. am aware that there are significant penalties for submitting false



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	STATE OF THE PARTY			
Drainage area number		Break down of BUA in the drainage area (both new and existing):		
Total coastal wetlands area (sq ft)	0 SF	- Parking / driveway (sq ft)		19267 sf
Total surface water area (sq ft)	0 SF	- Sidewalk (sq ft)		3041 sf
Total drainage area (sq ft)	49362 sf	- Roof (sq ft)		9100 sf
BUA associated with existing development (sq ft)	0 SF	- Roadway (sq ft)		0.SF
	34176 sf	- Other, please specify in the comment box below (sq ft)	hire?	2768 sf
Percent BUA of drainage area	¥ A	Total BUA (sq ft)		34.176 SF
COMPLIANCE WITH THE APPLICABLE STORMWATER PROGRAM				ATCHIOLOGICAL CARTOCOLOGICAL
Stormwater program(s) that apply (please specify):		Design rainfall depth (in)		1.5 in
Coastal Stormwater		Minimum volume required (cu ft)		4153 cf
		Design volume of SCM (cu ft)	Control of the Contro	8825 cf
GENERAL MDC FROM 02H .1050				
#1 Is the SCM sized to treat the SW from all surfaces at build-out?	Yes	#7 If applicable, with the SCM be cleaned out after construction?		Yes
#2 is the SCM located on or near contaminated soils?	No	#8 Does the mainetenance access comply with General MDC (8)?		Yes
#3 What are the side slopes of the SCM (H:V)?	3:1, 6:1, 2:1	#9 Does the drainage easement comply with General MDC (9)?	300	Yes
#3 Does the SCM have retaining walls, gabion walls or other engineered side slopes?	No	#10 If the SCM is on a single family lot, does the plat comply with General MDC (10)?		No.
#4 Are the inlets, outlets, and receiving stream protected from erosion (10-year storm)?	Yes	#11 Is there an O&M Agreement that complies with General MDC (11)?		Yes
#5 is there a a bypass for flows in excess of the design flow?	Yes	#12 Is there an O&M Plan that complies with General MDC (12)?	ち	Yes
#6 What is the method for dewatering the SCM for maintenance?	Pump (preferred)	#13 Was the SCM designed by an NC licensed professional?		Yes
WET POND MDC FROM 02H .1053			The second secon	ACTUAL DESCRIPTION OF THE PERSON OF THE PERS
#1 Method used	SA/DA	#6 Width of the vegetated shelf (feet)		6.11
#1 Surface area of the main permanent pool (square feet)	3807 sf	#6 Location of vegetated shelf	Abo	Above Normal Pool
#1 Volume of the main permanent pool (cubic feet)	13362.5 cf	#6 Elevation of top of shelf (fmsl)		44 ft
#2 Average depth of the main pool (feet)	3.5 ft	#6 Elevation of bottom of shelf (fmsl)		43 ft
#2 Was the vegetated shelf included in the calculation of average depth?	No	#6 Slope of vegetated shelf (H:V)		6:1
#2 Elevation of the bottom of the permanent pool (fmsl)	36 ft	#7 Diameter of drawdown orifice (inches)		1.5 in
#2 Elevation of the top of the permanent pool (fmsl)	43 ft	#7 Drawdown time for the temporary pool (hours)		60 hrs
#2 Elevation of the top of the temporary pool (fmsl)	44.5 fnsl	#7 Does the orifice drawdown from below the top surface of the permanent pool?		Yes
#3 Depth provided for sediment storage (inches)	24 in	#8 Does the pond minimize impacts to the receiving channel from the 1-yr, 24-hr storm?	n?	Yes
#4 Are the inlet(s) and outlet located in a manner that avoids short-circuiting?	Yes	#9 Are fountains proposed?	200	No.
#4 Describe any measures, such as berms or baffles, that will be taken to improve the flow path:		#9 If yes, is documentation provided per Wet Pond MDC (9)?		1
NIA		#10 Is a trash rack or other device provided to protect the outlet system?		Yes
#5 Volume of the forebay (cubic feet)	2100	#11 Are the dam and embankment planted in non-clumping turl grass?	300	Yes
#5 Is this 15-20% of the volume in the main pool?	Yes	#11 Species of turf that will be used on the dam and embankment	Be	Bermuda Grass
#5 Depth of forebay at entrance (inches)	60 in	#11 Describe the planting plan for the vegetated shelf:		
#5 Depth of forebay at exit (inches)	48 in	Minimum of 3 different species herbaceous, native vegetation at a minimum density of 50 plants per 200 SF.	50 plants per 200 SF	F.
#5 Does water flow out of the forebay in a non-erosive manner?	Yes			
#5 Clean-out depth for forebay (inches)	48 in			
#5 Will the forebay be cleaned out when the depth is reduced to less than the above?	Yes			
ADDITIONAL INFORMATION			AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	A STATE OF THE PERSON NAMED IN COLUMN NAMED IN



9:16 AM 2/22/2018

Permit Number:

(to be provided by City of Wilmington)

BMP Drainage Basin #:

#### Wet Detention Basin Operation and Maintenance Agreement

NIT#11033

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 ( <i>check one</i> ): $\square$ does $\boxtimes$ does not	incorporate a vegetated filter at the outlet.
This system ( <i>check one</i> ): ☐ 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 perimeter 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
EIVEN		ground cover and water until it is established. Provide lime and a one-time fertilizer application.
20 2017	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 #: 1

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
	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.
	Weeds are present.	Remove the weeds, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.
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.
	Algal growth covers over 50% of the area.  Cattails, phragmites or other invasive plants cover 50% of the basin surface.	Consult a professional to remove and control the algal growth.  Remove the plants by wiping them with pesticide (do not spray).

BMP element:	Potential problem:	How I will remediate the problem:
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.

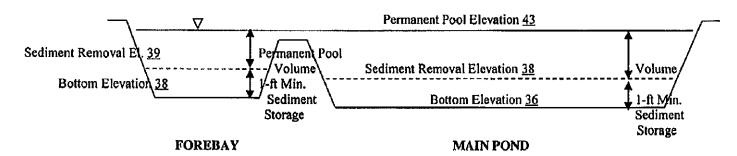
The measuring device used to determine the sediment elevation shall be such that it will give an accurate depth reading and not readily penetrate into accumulated sediments.

When the permanent pool depth reads <u>5</u> feet in the main pond, the sediment shall be removed.

When the permanent pool depth reads <u>4</u> feet in the forebay, the sediment shall be removed.

#### **BASIN DIAGRAM**

(fill in the blanks)



Permit Number:		
(to be pro	vided 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: Dollar General - Wilmington - Carolina Beach Road
BMP drainage basin number:
Print name: Rudy L. Pittman
Title:Managing Member
Address: 2075 Juniper Lake road
Phone:910 - 944 - 0881
Signature:
Date: 4/2/17
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.
the lots have been sold and a resident of the subdivision has been hamed the president.
I,
Dorsh Carolina, County of Moore, do hereby certify that
P. Lee Pittman personally appeared before me this 20th
day of Jule, and acknowledge the due execution of the
forgoing wet detention basin maintenance requirements. Witness my hand and official
Seal, O. J.
Notary Public Z
Moore E County
My Comm. Exp. = 1 (2/14/2021)
THE STA CAROLINIA
My Comm. Exp.  12/14/2021 F
SEAL
t t
My commission expires 12/14/2021