



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: Circle K Stores Inc.
PROJECT: Circle K Stores Inc.
ADDRESS: 6330 Market Street

PERMIT #: 2018051

DATE: November 27, 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 November 27, 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 November 21, 2018.
- 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.
- 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.
- 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:

Scheduled inspections (interval noted on the agreement).

Sediment removal.

Mowing 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 27th day of November, 2018.

for Sterling Cheatham, City Manager

City of Wilmington





Public Services
Engineering
212 Operations Center Dr
Wilmington, NC 28412
910 341-7807
910 341-5881 fax
wilmingtonnc.gov
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# STORMWATER MANAGEMENT PERMIT APPLICATION FORM (Form SWP 2.2)

# 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.): STORES INC IRCLE 2. Location of Project (street address): 6330 MARKET ST County: New Hanover City: Wilmington 3. Directions to project (from nearest major intersection): (US HWY 17) AND GREEN MEADOWS DR. II. PERMIT INFORMATION 1. Specify the type of project (check one): Low Density High Density Orains 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: N/A 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: \_\_\_\_\_ State - NCDENR/DWQ: \_\_\_\_\_ 3. Additional Project Permit Requirements (check all applicable):-Sedimentation/Erosion Control CAMA Major 404/401 Permit: Proposed Impacts: NPDES Industrial Stormwater 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:

SUBMITTAL TO NEW HANDUER COUNTY IS CURRENTLY



# III. CONTACT INFORMATION

١.	designated government official, individual, etc. who owns the project):
	Applicant / Organization: CIRCLE K STORES INC
	Signing Official & Title: MEREDITH W RICE TR., VP
	a. Contact information for Applicant / Signing Official:
	Street Address: 1100 SITUS COURT SUITE 100
	City: BALE16H State: NC Zip: 27606
	Phone: 919-609-5052 Fax:Email: APRIOLO@ CIRCLE K. Com
	Mailing Address (if different than physical address):
	City:State:Zip:
	b. Please check the appropriate box. The applicant listed above is:
2.	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:
	Signing Official & Title:
	a. Contact information for Property Owner:
	Street Address:
	City:        State:        Zip:            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: CIRCLE K STORES, INC.
	Other Contact Person / Organization: CIRCLE K STORES, INC.  Signing Official & Title: WES WILLIAMS CONSTRUCTION MANAGE
	Signing Official & Title: WES WILLIAMS CONTROCTION ///a.



City	Raleigh	State	nc	Zin:	27606
	95.0843 Fax:				
Mailing Addres	s (if different than physical add	lress):			
City:		State: _		Zip: _	
PROJECT INFOR	MATION				
In the space provid	led below, briefly summarize h	ow the sto	rmwater	runoff w	vill be treated.
	l flow into the proposed				
quality flow wi	II be treated and infilt: Il be handle by infiltra	rated in	to the	ground.	All other storm
All storm water	flows will be release at	pre de	velp cor	ndition	s as per city standa
Total Property Area	a:123,885_square feet				
Total Coastal Wetl	ands Area:0squa	re feet			
Total Surface Water	er Area:0square	feet			
	a (2) – Total Coastal Wetlands 3 , 855 _ square feet.	Area (3) -	- Total S	urface V	Vater Area (4) = Total
Existing Imperviou	s Surface within Property Area	: 100,6	24_squa	re feet	
Existing Imperviou	s Surface to be Removed/Dem	nolished:	100,62	4_squa	re feet
	s Surface to Remain:0				
Total Onsite (within	n property boundary) Newly Co	nstructed	Impervio	ous Surfa	ace (in square feet):
Buildings/Lots			5,	174	
Impervious Pavemer	nt		4	4,144	
Pervious Pavement	(adj. total, with % credit a	pplied)		0	
Impervious Sidewalk	s		4	055	
Pervious Sidewalks	(adj. total, with % credit a	pplied)		0	
Other (describe)	(Canopy Area)		5	304	
Future Development				0	
I didie Developinent					

(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) = \_\_\_\_58,677 \_\_\_square feet

11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 47.4%

SEP 1 0 2018 ENGINEERING





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

Impervious Pavement	2,094
Pervious Pavement (adj. total, with % credit applied)	0
Impervious Sidewalks	3,241
Pervious Sidewalks (adj. total, with % credit applied)	0
Other (describe)	0
Total Offsite Newly Constructed Impervious Surface	5,335

13. Total Newly Constructed Impervious Surface	64 010	
(Total Onsite + Offsite Newly Constructed Impervious Surface) = _	64,012	_square fee

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	BMP#	BMP#	BMP#
Receiving Stream Name	Spring Branch		1
Receiving Stream Index Number	18-74-63-1		
Stream Classification	SW:C		1115
Total Drainage Area (sf)	123,885		
On-Site Drainage Area (sf)	123,885		
Off-Site Drainage Area (sf)	0		
Total Impervious Area (sf)	64,012		4
Buildings/Lots (sf)	5,174		4 1,4
Impervious Pavement (sf)	44,144		
Pervious Pavement (sf)	0		
Impervious Sidewalks (sf)	4,055		
Pervious Sidewalks (sf)	0		
Other (sf) (Canopy Area)	5,304		
Future Development (sf)	0		4
Existing Impervious to remain (sf)	0		
Offsite (sf)	5,335		
Percent Impervious Area (%)	51.7		

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

All offsite areas are located within the roadway right of ways that surround the site. These areas include part of the driveways and sidewalks located adjacent to this site.



### 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 212 Operations Center Dr Wilmington, NC 28412



# VI. CONSULTANT INFORMATION AND AUTHORIZATION

(s	applicant: Complete this section such as a consulting engineer his project (such as addressing	and /or firm) so that they	may provide informati	
C	Consulting Engineer: LARA	Y DIEHL		
	Consulting Firm: EREEN		)	
	a. Contact information for	consultant listed above:		
			FORE ST. NUL	Sw7 = 200
	Mailing Address: 1430 City: ATUM74	Cto Cto	54 7in '	20209
	City: 11 14474	Sta	.e:zip:	30301 France
	Phone: 404-601-4000 F	ax: <u>404-607-5990</u> Em	ail: LOTEACE ORE	ENDERO PARAZOW.
/II.	PROPERTY OWNER AUT	HORIZATION (If Section II	(2) has been filled out, com	plete this section)
isted in proposition of the substantial designment of the substant		eement or pending proper party responsible for the cowledge, understand, an intact Information, item 1) of or pending sale, responsients back to me, the propertion filmington immediately a rwise I will be operating apperation of a stormwater	to develop the rty sales contract has less contract has less and maintenance of agree by my signature is solves their company sibility for compliance verty owner. As the prond submit a completed a stormwater treatment reatment facility with ances and may result in	re below, that if my y and/or cancels or with the City of operty owner, it is my d Name/Ownership t facility without a nout a valid permit is a n appropriate
SEA	AL	0:		
	40	Signature:		
		Datc		
		I,	, a	Notary Public for the
		State of	, County of	, do
		hereby certify that		
		personally appeared before	me this day of	



My commission expires:	
VIII. APPLICANT'S CERTIF	ICATION .
hat the information included on hat the project will be construc	certify this permit application form is, to the best of my knowledge, correct and ted in conformance with the approved plans, that the required deed nants will be recorded, and that the proposed project complies with the
NOTARY PUBLIC PUBLIC PUBLIC	requirements of the applicable stormwater rules under.  Signature:   Date:   HILLENDER  I,   ANOTALO  , a Notary Public for the State of North Carolina, County of Wake, do hereby certify that Mered A W- Rice Tr.  personally appeared before me this day of April 1'e, 2018, and acknowledge the due execution of the application for a stormwater

.

# 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		southside of the project site
Bioretention Cell		
Wet Pond		
Stormwater Wetland		
Permeable Pavement		
Sand Filter		
Rainwater Harvesting		
Green Roof		
Level Spreader-Filter Strip		
Disconnected Impervious Surface		
Treatment Swale		
Dry Pond		

# Project Name:

# CIRCLE K

# 6330 MARKET STREET Address

# City / Town

CITY OF WILMINGTON

# Designer information for this project:

Name and Title:	JOHN NOURZAD, PRINCIPLE
Organization:	GREENBERG FARROW
Street address:	1430 W. PEACHTREE ST NW
City, State, Zip:	SUITE 200 ATLANTA, GA 30309
Phone number(s):	404.601.4000
Email:	jcarter@greenbergfarrow.com

# Applicant:

Company:	CIRCLE K
Contact:	WES WILLIAMS, CONSTRUCTION MANAGER
Mailing Address:	Mailing Address: 1100 SITUS COURT SUITE 100
City, State, Zip:	RALEIGH, NC 27606
Phone number(s): 919.995.0843	919.995.0843
Email:	wwilliams@circlek.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. I am aware that there are significant penalties for submitting false

# INFILTRATION SYSTEMS

Deliningge area inchings area (ed. 1)   20 st   5. Sedewalk (ed. 1)   2. Sedewalk (ed.			The state of the s
0 sf   0 sion (10-year storm)?   0 sion (10-year stor		own of BUA in the drainage area (both new and existing):	
123885 sf   123885 sf   0.0 sion (10-year storm)?		ng / driveway (sq ft)	44144 sf
123885 sf   0 sf		valk (sq ft)	4055 sf
0.0 sf   64012 sf   51.7%		(sd ft)	10478 sf
64012 sf	- Js 0:	way (sq ft)	.0 sf
ocram  leered side slopes? sion (10-year storm)? sion (33:1) sion (10-year storm)? sion (33:1) sion (10-year storm)? sion (33:1) s	64012 sf	; please specify in the comment box below (sq ft)	5335 sf
eered side slopes? sion (10-year storm)? sion (33.1) sio		JA (sq ft)	64012 sf
eered side slopes? no sion (10-year storm)? yes no sion (10-year storm)? yes sion (10-year storm)? yes  The infiltration system? yes a 32 ft a 32 ft a 14 in/hr The soil profile: ASTAL PLAINS PHYSIOGRAPHIC ASTAL PLAINS ASTAL	SABLE STORMWATER PROGRAM		
reered side slopes? no (3:1)  eered side slopes? no (3:1)  sion (10-year storm)? yes  sion (10-year storm)? yes  The infiltration system? yes  14 in/hr  The soil profile:  ASTAL PLAINS PHYSIOGRAPHIC  ASTAL PLAINS PHYSIOGRAPHIC		ainfall depth (in)	1.5 in
reered side slopes? sion (10-year storm)? si		n volume required (cu ft)	7454 cf 8015 cf
eered side slopes? no sion (10-year storm)? yes sion (10-year storm)? yes sion (10-year storm)? yes The infiltration system? yes a 32 ft the infiltration system? 14 in/hr he soil profile: ASTA PLAINS PHYSIOGRAPHIC ASTAL PLAINS ASTAL PLAIN	0		
eered side slopes? no sion (10-year storm)? yes sion (10-year storm)? yes bion (10-year storm)? yes  The infiltration system? yes  The soil profile:  The soil profile:  The soil profile:  The infiltration system? yes  The infiltration system? Yes	yes	olicable, with the SCM be cleaned out after construction?	Yes
(3:1)  no  yes  yes  yes  Drawdown Orffice  32 ft  14 in/hr  14 in/hr  15 yes  14 in/hr  16 yes  17 yes  18 in/hr  18 in/hr  18 in/hr  18 in/hr  18 in/hr  18 in/hr  19 yes  32 ft  37 ft  no  no	ou	the mainetenance access comply with General MDC (8)?	Yes
17 yes yes yes yes Drawdown Orifice 32 ft 14 in/hr 14 in/hr 15 in GRAPHIC HIGH INFILTRATION SESSIVE, DEPTH TO 32 ft 37 ft no no no	(3:1)	the drainage easement comply with General MDC (9)?	Yes
yes yes Drawdown Orfice 32 ft 17 yes 14 in/hr 14 in/hr 16 INFILTRATION SIOGRAPHIC HIGH INFILTRATION SESSIVE DEPTH TO 32 ft 37 ft no no	slopes? no	#10 If the SCM is on a single family lot, does the plat comply with General MDC (10)?	
yes Drawdown Orifice  12 ft fthe infiltration system?  14 in/hr the soil profile: D-WOODINGTON FINE SANDY LOAM AND To-ASTAL PLAINS PHYSIOGRAPHIC RAINED AND HAVE HIGH INFILTRATION ND DRAINAGE IS EXCESSIVE, DEPTH TO Setween 1 and 2 feet?  12 ft 137 ft 14 in/hr 15 ft 16 in/hr 16 in/hr 17 in/hr 18 in/hr 18 in/hr 18 in/hr 18 in/hr 19 in/hr 19 in/hr 19 in/hr 10 in/hr 10 in/hr 11 in/hr 11 in/hr 12 in/hr 12 in/hr 13 in/hr 14 in/hr 15 in/hr 16 in/hr 16 in/hr 17 in/hr 18 in/hr 18 in/hr 18 in/hr 18 in/hr 19 in/hr 18 in/hr 19 in/hr 10 in/hr 11 in/hr 11 in/hr 12 in/hr 12 in/hr 13 in/hr 13 in/hr 14 in/hr 16 in/hr 16 in/hr 17 in/hr 18 in/hr 18 in/hr 18 in/hr 19 in/hr 19 in/hr 10 in/hr	yes	#11 Is there an O&M Agreement that complies with General MDC (11)?	Yes
the infiltration system?  14 in/hr  14 in/hr  15 woODINGTON FINE SANDY LOAM AND To-ASTAL PLAINS PHYSIOGRAPHIC  RAINED AND HAVE HIGH INFILTRATION  ND DRAINAGE IS EXCESSIVE, DEPTH TO  ND DRAINAGE IS EXCESSIVE, DEPTH TO  Setween 1 and 2 feet?  10 wooding to the company of the co	yes	nere an O&M Plan that complies with General MDC (12)?	Yes
	Drawdown Orifice	s the SCM designed by an NC licensed professional?	Yes
100 CO 10	OM 02H .1051		
		Ith (ft)	varies
	sek	h (ft)	varies
		h/Height (ft)	4 ft
		ace area of the bottom of the infiltration system (sq feet)	2622 sf
		Jing depth of the design volume (in)	22 in
	MOITA	nated dewatering time (hours)	.210 hrs
		renches only: Perforated pipe diameter, if applicable (inches)	
37 ft no no no no no no no no no		renches only: Number of laterals	
nd 2 feet? no 0% no no no	37 ft	renches only: Stone type, if applicable	
surface (%) 0% no	nd 2 feet? no	renches only: Stone void ratio (%)	
OU	%0	renches only: Is stone free of fines?	
		renches only: Is the stone wrapped in geotextile fabric?	
#4 Describe the pretreatment that will be provided:		e infiltration system located underground?	No
#6 If so, has at least one infiltration port been provided?	'os JI 9#	has at least one infiltration port been provided?	



Please use this space to provide any information about this infiltration system that you think is relevant to the review:



# 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.



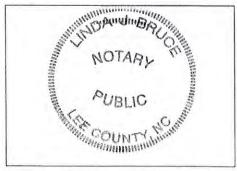
BMP element:	Potential problem:	How I will remediate the problem:
The forebay	Sediment has accumulated and reduced the depth to 75% of the original design depth.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will 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. An annual inspection by an appropriate professional shows that the embankment needs repair.	Remove shrubs or trees immediately.  Make all needed repairs.
The outlet device	Clogging has occurred.  The outlet device is damaged	Clean out the outlet device. Dispose of the sediment off-site.  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.

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, Linda J. Bruce , a Notary Public for the State of North Carolina, County of Wake, do hereby certify that Meredith Will Bice, Jr. personally appeared before me this 24 day of August , 2019, and acknowledge the due execution of the forgoing infiltration basin maintenance requirements. Witness my hand and official seal,



SEAL

My commission expires 7/9/23