



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: Wilmington Auto Group Properties, LLC

PROJECT:

Parkway Parking 5932 Market Street

ADDRESS: PERMIT #:

2018049

DATE:

November 7, 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 7, 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 6, 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.

c. 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 7th day of November, 2018.

for Sterling Cheatham, City Manager

City of Wilmington



I. GENERAL INFORMATION



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

STORMWATER MANAGEMENT PERMIT APPLICATION FORM (Form SWP 2.2)

1. Project Name (subdivision, facility, or establishment name - should be consistent with project name on plans, specifications, letters, operation and maintenance agreements, etc.): Parkway Parking Location of Project (street address): 5932 Market Street City: Wilmington County: New Hanover Zip: 284 05 3. Directions to project (from nearest major intersection): From the intersection of US 74 Eastwood Road and US 17 Market Street, travel approx. 0.55 mile northeast on Market Street. Site is on the right. II. PERMIT INFORMATION Specify the type of project (check one): Low Density X High Density Drains to an Offsite Stormwater System Drainage Plan 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 X 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 designated government official, individual, et	title (specifically c. who owns the	y the developer e project):	r, property owner, lessee,
	Applicant / Organization: Wilmington Auto			
	Signing Official & Title: Donald R. Latham	, Member Man	ager	
	a. Contact information for Applicant / Sig	ning Official:		
	Street Address: 5920 Market Street			
	City:Wilmington	State:	NC Zip:	28405
	Phone: 910-202-8711 Fax:			
	Mailing Address (if different than physical	address):		
	City:			
	b. Please check the appropriate box. The	e applicant liste	ed above is:	
2.	X The property owner (Skip to item 3) Lessee* (Attach a copy of the lease agreemed Purchaser* (Attach a copy of the pending sand Developer* (Complete items 2 and 2a below	ales agreement and v.)	d complete items 2	2 and 2a below)
۷.	Print Property Owner's name and title below, the person who owns the property that the pro	if you are the le oject is on.)	essee, purchas	er, or developer. (This is
	Property Owner / Organization:			
	Signing Official & Title:			
	a. Contact information for Property Owner Street Address:	er:		_
	City:			
	Phone:Fax:	Email:		
	Mailing Address (if different than physical			
	City:	State:	Zip: _	
3.	(Optional) Print the name and title of another or another person who can answer questions	contact such as about the proje	the project's c	onstruction supervisor
	Other Contact Person / Organization:	_		
	Signing Official & Title:			



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

	Street Address:			
	City:	State:	Zip:	
	Phone:Fax:	Email:		
	Mailing Address (if different than phy			
	City:			
IV	. PROJECT INFORMATION		•	
1.	In the space provided below, briefly sum	marize how the stor	mwater runoff will b	e treated.
	Parking lot sloped to drain to curb	inlets with runoff	routed to undergr	round infiltration
	Rain Tanks designed for 100 year col	lection and zero d	lischarge. In add	ition, there is an
	emergency spillway to drain to an ex			·
2.				
3.	Total Coastal Wetlands Area:0	square feet		
4.	Total Surface Water Area:0	square feet		
5.			Total Surface Water	r Area (4) = Total
6.	Existing Impervious Surface within Prope	rty Area: _13,560	square feet	
7.				et
8.				
9.	Total Onsite (within property boundary) N			(in square feet):
	Buildings/Lots		0	1
	Impervious Pavement		25,045	1
	Pervious Pavement (adj. total, with %	credit applied)	0	1
	Impervious Sidewalks		0	1
	Pervious Sidewalks (adj. total, with %	credit applied)	0	1
	Other (describe)		0	1
	Future Development		0	
	Total Onsite Newly Constructed Imperviou	s Surface	25,045	1
	. Total Onsite Impervious Surface (Existing Impervious Surface to remain + Onsite No . Project percent of impervious area: (Total of			



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

Impervious Pavement		0	
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 Impe	rvious Surface	0	

13. Total Newly Constructed Impervious Surface	
(Total Onsite + Offsite Newly Constructed Impervious Surface) = 25,045	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	UT Spring Branch		
Receiving Stream Index Number	18-74-61-1	•	
Stream Classification	C SW		
Total Drainage Area (sf)	43,490		
On-Site Drainage Area (sf)	43,490	-	
Off-Site Drainage Area (sf)	0		
Total Impervious Area (sf)	25,045		
Buildings/Lots (sf)	0		
Impervious Pavement (sf)	0		
Pervious Pavement (sf)	0		
Impervious Sidewalks (sf)	0		
Pervious Sidewalks (sf)	0		
Other (sf)	0		
Future Development (sf)	0		
Existing Impervious to remain (sf)	0		
Offsite (sf)	0		
Percent Impervious Area (%)	57.6	-	

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

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 212 Operations Center Dr Wilmington, NC 28412



VI. CONSULTANT INFORMATION AND AUTHORIZATION

(such as a consulting engine	tion if you wish to designate authority to another individual and/or firm er and /or firm) so that they may provide information on your behalf for sing requests for additional information).
Consulting Engineer: Phill	ip G. Tripp, P.E.
Consulting Firm: Tripp I	Engineering, P.C.
a. Contact information f	or consultant listed above:
Mailing Address: 419 Cl	nestnut Street
City: _Wilmington	State: <u>NC</u> Zip: 28401
Phone: 910-763-5100	Fax: 910-763-5631 Email: office@trippengineering.com
VII. PROPERTY OWNER AL	JTHORIZATION (If Section III(2) has been filled out, complete this section)
person listed in Contact Information, ite listed in Contact Information, item 1) proposed. A copy of the lease ag	contact Information, item 2), certify that I is permit application, and thus give permission to (print or type name of m 1) with (print or type name of organization to develop the project as currently greement or pending property sales contract has been provided with a party responsible for the operation and maintenance of the
designated agent (entity listed in a defaults on their lease agreemer Wilmington Stormwater Permit re responsibility to notify the City of Change Form within 30 days; otherwise valid permit. I understand that the	contact Information, item 1) dissolves their company and/or cancels or at, or pending sale, responsibility for compliance with the City of everts back to me, the property owner. As the property owner, it is my Wilmington immediately and submit a completed Name/Ownership nerwise I will be operating a stormwater treatment facility without a eleperation of a stormwater treatment facility without a valid permit is a municipal Code of Ordinances and may result in appropriate enforcement including the assessment of civil penalties. Signature:
	Date:
	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 CERTIFIC	CATION
that the information included on that the project will be constructed restrictions and protective coverage of the strictions and strictions and strictions are strictly as a striction of the strictions and strictions are strictly as a strict	Contact Information, item 1) , Donald R. Latham certify his permit application form is, to the best of my knowledge, correct and in conformance with the approved plans, that the required deed ants will be recorded, and that the proposed project complies with the requirements of the applicable stormwater rules under. Signature: Date: Date: Donald R. Latham personally appeared before me this day of April 208, and acknowledge the due execution of the application for a stormwater I seal,
My commission expires:	-2(

SUPPLEMENT-EZ FORM COVER PAGE



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

Quantity

Infiltration System

Bioretention Cell

Wet Pond

Refresh Sheet (Click Button Below)

Project Name:

under parking lot Location(s)

Parkway Parking

Address

5932 Market Street

City / Town

Wilmington

Designer information for this project:

Disconnected Impervious Surface Level Spreader-Filter Strip

Treatment Swale

Dry Pond

Rainwater Harvesting

Green Roof

Sand Filter

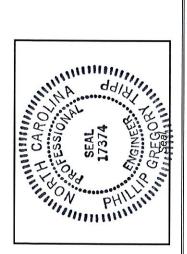
Permeable Pavement Stormwater Wetland

Name and Title:	Phillip G. Tripp, P.E.	
Organization:	Tripp Engineering, P.C.	
Street address:	419 Chestnut Street	
City, State, Zip:	Wilmington, NC 28401	
Phone number(s):	910-763-5100	
Email:	trippeng@ec.rr.com	

Applicant:

Company:	Wilmington Auto Group, LLC
Contact:	Heather Layton
Mailing Address:	5920 Market Street
City, State, Zip:	Wilmington, NC 28405
Phone number(s): 910-202-8711	910-202-8711
Email:	hlayton@parkwayofwilmington.com

Designer





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



2:44 PM 7/12/2018

INFILTRATION SYSTEMS

THE DRAINAGE AREA			
Drainage area number		Break down of BUA in the drainage area (both new and existing):	Azionisticiamos independente de prime de como de prime de como
Total coastal wetlands area (sq ft)	sf	- Parking / driveway (sq ft)	27045 sf
Total surface water area (sq ft)	Sf	- Sidewalk (sq ft)	Sf
Total drainage area (sq ft)	43490 sf	- Roof (sq ft)	Sf
BUA associated with existing development (sq ft)	sf	- Roadway (sq ft)	Sf
Proposed new BUA (sq ft)	27045 sf	- Other, please specify in the comment box below (sq ft)	sf
Percent BUA of drainage area	62%	Total BUA (sq ft)	27045 sf
COMPLIANCE WITH THE APPLICABLE STORMWATER PROGRAM			
Stormwater program(s) that apply (please specify):		Design rainfall depth (in)	1.5 in
City of Wilmington		Minimum volume required (cu ft) Design volume of SCM (cu ft)	3130 cf 17500 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?	ОП
#2 Is the SCM located on or near contaminated soils?	OU	#8 Does the mainetenance access comply with General MDC (8)?	yes
#3 What are the side slopes of the SCM (H:V)?	na	#9 Does the drainage easement comply with General MDC (9)?	yes
#3 Does the SCM have retaining walls, gabion walls or other engineered side slopes?	OU	#10 If the SCM is on a single family lot, does the plat comply with General MDC (10)?	OU
#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)?	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
INFILTRATION SYSTEM MDC FROM 02H .1051			
#1 SHWT elevation (fmsl)	33.7 ft	#5 Length (ft)	355. ft
#1 Was the soil investigated in the footprint and at the elevation of the infiltration system?	Yes	#5 Width (ft)	32. ft
#1 Soil infiltration rate (in/hr)	.4 in/hr	#5 Depth/Height (ft)	1.5 ft
#1 Briefly describe the hydraulic properties and characteristics of the soil profile:		#5 Surface area of the bottom of the infiltration system (sq feet)	11500 sf
sandy soils with low permeability		#5 Ponding depth of the design volume (in)	18 in
		#5 Estimated dewatering time (hours)	45 hrs
		#5 For trenches only: Perforated pipe diameter, if applicable (inches)	
#2 SHWT elevation (fmsl)	33.7 ft	#5 For trenches only: Number of laterals	
#2 Bottom of the Infiltration system (fmsl)	36.7	#5 For trenches only: Stone type, if applicable	
#2 Is a detailed hydrogeologic study attached if the separation is between 1 and 2 feet?	ON	#5 For trenches only: Stone void ratio (%)	
#3 Proposed slope of the subgrade surface (%)	%0	#5 For trenches only: Is stone free of fines?	Yes
#3 Are terraces or baffles provided?	ON	#5 For trenches only: Is the stone wrapped in geotextile fabric?	Yes
#4 Describe the pretreatment that will be provided:		#6 Is the infiltration system located underground?	Yes
Permenant inlet protection		#6 If so, has at least one infiltration port been provided?	Yes
ADDITIONAL INFORMATION			
Please use this space to provide any information about this infiltration system that you think is rele	levant to the review:		
		RECEIVED	
		0	

OCT 29 2018

F . 7 9 2018

ENGINEERING

CNEWEFRING

Ор	eration & Mainte	nance Agre	ement	
Project Name:	Parkway Parking 5932 Market Street			
Project Location:				
	Cover F	Page		
Maintenance records shall be kept on	the following BMP(s). This m	aintenance record sh	all be kept in a log in	a known set location.
Any deficient BMP elements noted in t	he inspection will be corrected	d, repaired, or replace	d immediately. The	se deficiencies can
affect the integrity of structures, safety	of the public, and the pollutar	nt removal efficiency of	of the BMP(s).	
The BMP(s) on this project include (ch			be added automatica	lly):
Bioretention Cell Dry Detention Basin	Quantity:	Location(s):		,
Grassed Swale	Quantity: Quantity:	Location(s):		
Green Roof	Quantity:	Location(s): Location(s):		
Infiltration Basin	Quantity:	Location(s):		
Infiltration Trench	Quantity: 1		Under parking lot	
Level Spreader/VFS	Quantity:	Location(s):	Onder parking lot	
Permeable Pavement	Quantity:	Location(s):		
Proprietary System	Quantity:	Location(s):		
Rainwater Harvesting	Quantity:	Location(s):		
Sand Filter	Quantity:	Location(s):		
Stormwater Wetland	Quantity:	Location(s):		
Wet Detention Basin	Quantity: 0	Location(s):	,	
Disconnected Impervious Are		Location(s):		
User Defined BMP	Present: No	Location(s):		
Phone number(s):	5920 Market Street Wilmington, NC 28405 910-202-8711 hlayton@parkwayofwilming	gton.com		
	11/2H			
Signature:	Cont		Date:	4/27/8
Della C. Baird	a Not:	ary Public for the Stat	e of Marks	Cacalina
county of Pender	the state of the s			
			Donald R. Late	nam
ersonally appeared before me this		April, 201	8	and
cknowledge the due execution of the	Operations and Maintenance	Agreement .		
Vitness my hand and official seal,	Della C Band		hopping -	
NOTAR DOMESTIC OF THE PROPERTY				MAY - 7 2018 NGINEERING
P COUNT THE	[Body]			
Seal My comm	nission expires // -	15-21		

Infiltration System Maintenance Requirements

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 shall be inspected **once a quarter and within 24 hours after every storm event greater than 1.0 inches (or 1.5 inches if in a Coastal County)**. Records of operation and maintenance shall be kept in a known set location and shall 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 to 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.
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 local NC Department of Environment and Natural Resources Regional Office.