



Planning, Development, &
Transportation Department
Planning Division
305 Chestnut Street
PO Box 1810
Wilmington, NC 28402-1810

910 254-0900
910 341-3264 fax
wilmingtonnc.gov
Dial 711 TTY/Voice

TRANSMITTAL LETTER

TO: Zoning Enforcement Inspector
DATE: April 24, 2019
SUBJECT: **The Flats on Front** Project # 2018064
LOCATION: 1055 North Front Street

The following items are being sent to you via this package.

QUAN.	DWG./NO.	DESCRIPTION
1	Dated 4/24/19	The Flats on Front Approved Plans
1	Dated 11/29/18	Approved Tree Preservation Permit
1	Dated 4/23/19	City Comprehensive Stormwater Management Permit No. 2019023
1	Dated 3/22/19	NHC Grading Permit #63-18
1	Dated 8/2/18	Approved Traffic Impact Analysis with conditions

REMARKS: **The Flats on Front** project, located at 1055 North Front Street, is hereby conditionally released for construction. The following conditions must be satisfied as part of this release:

- A. A PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN THE SITE CONTRACTOR AND CITY STAFF PRIOR TO ANY SITE WORK, TREE REMOVAL, CLEARING, OR GRADING BEGINNING ON THE SITE. FAILURE TO COMPLY WILL RESULT IN IMMEDIATE CIVIL PENALTIES. CONTACT 910-254-0900.**
- B. NO EQUIPMENT IS ALLOWED ON THE SITE AND NO CONSTRUCTION OF ANY BUILDING, STRUCTURE, WALL, UTILITIES, INFRASTRUCTURE, ETC., OF ANY KIND, INCLUDING FOOTINGS AND BUILDING SLABS, WILL BE PERMITTED UNTIL:**
 - 1. BETH WETHERILL HAS FORMALLY ISSUED THE GRADING PERMIT AND AUTHORIZED THE ACTIVITY**
 - 2. THE CFPUA HAS AUTHORIZED THE WATER AND SEWER ACTIVITIES. THE CONTRACTOR MUST HAVE A PRECON WITH CFPUA 332-6560.**
 - 3. THE CITY ZONING INSPECTOR AUTHORIZES THE ACTIVITY.**
- C. ALL IMPROVEMENTS, AS RECOMMENDED BY THE SUBMITTED AND APPROVED TRAFFIC IMPACT ANALYSIS (TIA) SHALL BE INSTALLED AND INSPECTED PRIOR TO THE ISSUANCE OF THE FINAL ZONING APPROVAL.**
- D. A COPY OF THE RECORDED MAP SHOWING REQUIRED PUBLIC DRAINAGE EASEMENTS, PUBLIC ACCESS EASEMENTS, AND RIGHTS-OF-WAY FOR THE**

PROJECT MUST BE SUBMITTED PRIOR TO ISSUANCE OF THE FINAL ZONING APPROVAL.

- E. THIS DEVELOPMENT SHALL COMPLY WITH ALL LOCAL, CITY TECHNICAL STANDARDS, REGIONAL, STATE AND FEDERAL DEVELOPMENT REGULATIONS. ALL APPLICABLE TRC REQUIREMENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF THE FINAL ZONING APPROVAL.**
- F. PER THE REQUIREMENTS OF THE STORMWATER PERMIT, THE FOLLOWING SHALL OCCUR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR OPERATION OF THE PERMITTED FACILITY:**
 - AS-BUILT DRAWINGS FOR ALL STORMWATER MANAGEMENT FACILITIES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON ENGINEERING DIVISION.**
 - AN ENGINEER'S CERTIFICATION SHALL ALSO 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 IS REQUIRED BY CITY OF WILMINGTON ENGINEERING PERSONNEL (910) 341-5856.**
- G. PRIOR TO A FINAL INSPECTION, A WALKTHROUGH WITH CITY INSPECTIONS SHALL TAKE PLACE TO VERIFY COMPLETENESS OF SITE WORK IN ROW. ANY MATERIAL TEST REPORTS AND STORMWATER VIDEOS AS REQUIRED SHALL BE SUBMITTED PRIOR TO AND APPROVED BY CITY ENGINEERING. PLEASE CONTACT THE CITY ENGINEERING DIVISION AT 910.341.0094.**
- H. LANDSCAPE & HARDSCAPE AGREEMENTS FOR THE FRONT STREET RIGHT OF WAY IMPROVEMENTS MUST BE RECORDED PRIOR TO ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY.**
- I. NCDOT ENCROACHMENT AND/OR OTHER PERMITS, FOR STORMWATER OUTFALL, MUST BE OBTAINED PRIOR TO ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY.**
- J. PROPERTIES WITHIN THE SPECIAL FLOOD HAZARD AREA SHALL BE SUBJECT TO COMPLIANCE WITH ARTICLE 13 OF THE LAND DEVELOPMENT CODE. PLEASE CONTACT KATHRYN THURSTON, ZONING ADMINISTRATOR/FLOODPLAIN MANAGER (910.341.3249) FOR CLARIFICATION ON REQUIREMENTS FOR DEVELOPMENT IN THE FLOOD PLAIN.**
- K. THE DEVELOPER ASSUMES ALL RISKS AND PENALTIES WITH ANY DELAY OR STOP WORK ORDER ASSOCIATED WITH THE VIOLATION OF THIS RELEASE. THE DEVELOPER ACKNOWLEDGES THE CONDITIONS OF THIS RELEASE AND ASSUMES ALL RESPONSIBILITIES AND RISKS ASSOCIATED WITH IT. THE CITY OF WILMINGTON WILL NOT BE HELD LIABLE FOR ANY COSTS ASSOCIATED WITH THE CONSTRUCTION RELEASE.**
- L. APPROVAL OF A MAJOR OR MINOR SITE PLAN SHALL EXPIRE AFTER EIGHTEEN (18) MONTHS FROM THE DATE OF SUCH APPROVAL IF THE APPLICANT HAS FAILED TO MAKE SUBSTANTIAL PROGRESS ON THE SITE. THE TECHNICAL REVIEW COMMITTEE MAY GRANT A SINGLE, SIX-MONTH EXTENSION OF THIS TIME LIMIT FOR MAJOR AND MINOR SITE PLANS, FOR GOOD CAUSE SHOWN, UPON RECEIVING A REQUEST FROM THE APPLICANT**

BEFORE THE EXPIRATION OF THE APPROVED PLAN. IN THE EVENT APPROVAL OF A SITE PLAN HAS EXPIRED, FOR WHATEVER REASONS, THE OWNER AND/OR APPLICANT WILL BE REQUIRED TO RESUBMIT FOR APPROVAL OF A SITE PLAN THAT MEETS CURRENT DEVELOPMENT STANDARDS UNLESS OTHERWISE NOTED IN THIS CHAPTER.

M. IF THE CONDITIONS LISTED ABOVE ARE VIOLATED, A STOP WORK ORDER WILL BE ISSUED.

Please notify New Hanover County Building Inspections of this release.



Signature: _____

Jeff Walton, Associate Planner

Copy: Richard Collier, PE	Applicant (e-mail only)
Bret Russell	Construction Manager
Rob Gordon	Engineering
Jim Quinn	Stormwater Specialist
Aaron Reese	Urban Forestry
Rich Christensen	Engineering (email only)
Trent Butler	Engineering (email only)
Chris Elrod	Wilmington Fire Department (e-mail only)
Chris Walker	Wilmington Fire Department (e-mail only)
Brian Blackmon	Surveyor (e-mail only)
Jim Sahlie	GIS Addressing (e-mail only)
Bill McDow	Traffic Engineering (e-mail only)
Mitesh Baxi	Traffic Engineering (e-mail only)
Don Bennett	Traffic Engineering (e-mail only)
Bernice Johnson	CFPUA (e-mail letter only)
Beth Easley Wetherill	NHC Erosion Control (e-mail only)
Michelle Hutchinson	GIS Engineer (e-mail only)
Amy Beatty	Community Services (e-mail only)
Ryan O'Reilly	Community Services (e-mail only)
Joan Mancuso	City Zoning (email only)
Amy Schaefer	City Attorney's Office (email only)
Amy Dukes	City Attorney's Office (email only)



Planning, Development, &
Transportation Department
Planning Division
305 Chestnut Street
PO Box 1810
Wilmington, NC 28402-1810

910 254-0900
910 341-3264 fax
wilmingtonnc.gov

April 24, 2019

Mr. Richard Collier, PE
McKim & Creed
243 North Front Street
Wilmington, NC 28401

RE: The Flats on Front project, located at 1055 North Front Street

Please make note of the conditions for the release as they appear on the attached release letter. These conditions must be followed and met in order for the construction to be approved. ***Prior to beginning any construction or grading on the site, you must have a pre-construction meeting between City staff and the project's representatives. Any violation of this condition will result in an immediate stop work order and other civil penalties. Please contact our zoning office at 254-0900 to schedule the preconstruction meeting.***

All construction on the site must be in accordance with the City of Wilmington standards and the approved construction plans stamped by the City. All trees and areas designated to be saved or protected must be properly barricaded and/or marked throughout construction. In addition please be aware that to obtain a final zoning inspection for this construction project, the appropriate departments within the City of Wilmington must perform and approve final inspections.

To arrange for inspections please contact the assigned Zoning Enforcement Officer, at 254-0900. Staff will coordinate the inspections and provide a punch-list to the Developer within 5 working days. Upon correction of the punch-list items, a final inspection will be performed. ***NOTE: Zoning will not issue final approval until all requirements of the City of Wilmington are fulfilled.***

Please also be advised that any party aggrieved by the issuance of this approval may file a notice of appeal to the City Clerk within 30 days of receipt of active or constructive notice of this decision. It shall be presumed that all persons with standing to appeal have constructive notice of the decision from the date a sign containing the words "Zoning Decision" or "Subdivision Decision" in letters at least six inches high and identifying the means to contact an official for information about the decision is prominently posted on the property that is the subject of the decision, provided the sign remains on the property for at least 10 days. Posting of signs is not the only form of constructive notice. Any such posting shall be the responsibility of the landowner or applicant. Verification of the posting shall be provided to the official who made the decision. Absent an ordinance provision to the contrary, posting of signs shall not be required.

The City thanks you for your investment in our community and we look forward to working with you towards the construction of a quality development project.

Sincerely,

A handwritten signature in black ink that reads "Jeff Walton".

Jeff Walton
Associate Planner



Department of Planning,
 Development and Transportation
 Planning Division
 305 Chestnut Street
 PO Box 1810
 Wilmington, NC 28402-1810
 910 254-0900
 910 341-3264 fax
 www.wilmingtonnc.gov
 Dial 711 TTY/Voice

APPROVED: X DENIED: _____

PERMIT #: TPP-19-083

Application for Tree Removal Permit

Name of Applicant: CCC Flats on Front, LLC Phone: (404)735-2134 Date: 11/29/2018

Name of Property Owner: CCC Flats on Front, LLC Phone: (404)735-2134

Property Owner Address: 3605 Glenwood Ave., Suite 445 Raleigh, NC 27612

Address of Proposed Tree Removal: 1055 North Front Street Wilmington, NC 28401

Description of tree(s) to be removed/reason for removal: (provide attachment if necessary)

- 1. No trees to be removed
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____

Description of Replacement Tree(s): No replacement trees required.

I Kathryn Espinoza, PE, certify that the property owner has given me permission to apply for this permit on his/her behalf.

Applicant Signature: *Kathryn Espinoza* Date: 11/29/2018

***** FOR OFFICIAL USE ONLY *****

Reviewed By: *JM Alatorre* Date: 11-29-18

Remarks: _____

ALL WORK MUST BE IN COMPLIANCE WITH THE CITY LAND DEVELOPMENT CODE,
 ARTICLE 8, LANDSCAPING AND TREE PRESERVATION.

NEW CONSTRUCTION: X EXPANSION: _____ OTHER: _____ PAID: not fee JD

Tree Preservation Permit Fees

Less than 1 acre	\$25.00
1-5 acres	\$50.00
5-10 acres	\$100.00
Greater than 10 acres	\$150.00

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: **CCC Flats on Front, LLC**
PROJECT: **The Flats on Front**
ADDRESS: **1055 North Front Street**
PERMIT #: **2019023**
DATE: **April 23, 2019**

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 April 23, 2029 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 April 23, 2019.
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.



Public Services

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

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.

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.



Public Services

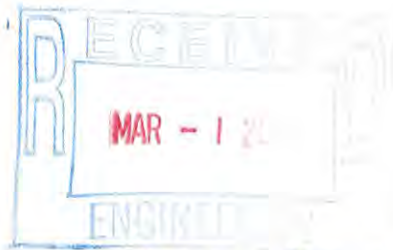
Engineering
212 Operations Center Drive
Wilmington, NC 28412
910 341-7807
910 341-5881 fax
wilmingtonnc.gov
Dial 711 TTY/Voice

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 April, 2019

for Sterling Cheatham, City Manager
City of Wilmington

SWP2019023



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



* Unless Otherwise
Noted

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.):

The Flats on Front

2. Location of Project (street address):

1055 North Front St

City: Wilmington County: New Hanover Zip: 28401

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

From US-421 (heading south) turn left on US-74 E/Isabel Holmes Bridge. Merge onto N 3rd St. and the project is locate on the right.

II. PERMIT INFORMATION

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

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

City of Wilmington: State - NCDENR/DWQ:

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

If yes, list all applicable Stormwater Permit Numbers:

City of Wilmington: State - NCDENR/DWQ:

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

CAMA Major Sedimentation/Erosion Control

NPDES Industrial Stormwater 404/401 Permit: Proposed Impacts:

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

III. CONTACT INFORMATION

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

Applicant / Organization: CCC Flats on Front, LLC

Signing Official & Title: William M. McClatchey, Jr., Manager

- a. Contact information for Applicant / Signing Official:

Street Address: 3605 Glenwood Ave, Suite 445

City: Raleigh State: NC Zip: 27612

Phone: (404)735-2134 Fax: _____ Email: pjones@dpjresidential.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

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

- The property owner (Skip to item 3)
 Lessee* (Attach a copy of the lease agreement and complete items 2 and 2a below)
 Purchaser* (Attach a copy of the pending sales agreement and complete items 2 and 2a below)
 Developer* (Complete items 2 and 2a below.)

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

Property Owner / Organization: _____

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: _____

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 physical address): _____

City: _____ State: _____ Zip: _____

IV. PROJECT INFORMATION

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

Stormwater will be treated using one (1) infiltration trench, one (1) biofiltration system, and two (2) underground filtration systems.

2. Total Property Area: 226,139 square feet

3. Total Coastal Wetlands Area: 0 square feet

4. Total Surface Water Area: 0 square feet

5. Total Property Area (2) – Total Coastal Wetlands Area (3) – Total Surface Water Area (4) = Total Project Area: 226,139 square feet.

6. Existing Impervious Surface within Property Area: 3,340 square feet

7. Existing Impervious Surface to be Removed/Demolished: 3,340 square feet

8. Existing Impervious Surface to Remain: 0 square feet

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

Buildings/Lots	74,716
Impervious Pavement	86,461
Pervious Pavement (adj. total, with % credit applied)	0
Impervious Sidewalks	15,039
Pervious Sidewalks (adj. total, with % credit applied)	0
Other (describe)	0
Future Development	0
Total Onsite Newly Constructed Impervious Surface	176,216

10. Total Onsite Impervious Surface

(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) = 176,216 square feet

11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 77.9 %

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

Impervious Pavement	
Pervious Pavement (adj. total, with % credit applied)	
Impervious Sidewalks (Multi-Use Trail)	3,031
Pervious Sidewalks (adj. total, with % credit applied)	
Other (describe)	
Total Offsite Newly Constructed Impervious Surface	3,031

13. Total Newly Constructed Impervious Surface

(Total Onsite + Offsite Newly Constructed Impervious Surface) = 179,247 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	BMP #1	BMP #2	BMP #3
Receiving Stream Name	Cape Fear	Cape Fear	Cape Fear
Receiving Stream Index Number	18-(71)	18-(71)	18-(71)
Stream Classification	SC	SC	SC
Total Drainage Area (sf)	36,124	138,678	26,099
On-Site Drainage Area (sf)	36,124	138,678	26,099
Off-Site Drainage Area (sf)	0	0	0
Total Impervious Area (sf)	24,326	115,082	21,439
Buildings/Lots (sf)	12,403	32,719	16,453
Impervious Pavement (sf)	9,960	72,215	3,882
Pervious Pavement (sf)	0	0	0
Impervious Sidewalks (sf)	1,963	10,148	1,104
Pervious Sidewalks (sf)	0	0	0
Other (sf)	0	0	0
Future Development (sf)	0	0	0
Existing Impervious to remain (sf)	0	0	0
Offsite (sf)	0	0	0
Percent Impervious Area (%)	67.3	83.0	82.1

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

BMP Drainage area information (continued)

Basin Information	BMP # 4	BMP # 5	Offsite BMP #
Receiving Stream Name	Cape Fear	Cape Fear	Cape Fear
Receiving Stream Index Number	18-(71)	18-(71)	18-(71)
Stream Classification	SC	SC	SC
Total Drainage Area (sf)	5,870	7,271	12,100
On-Site Drainage Area (sf)	5,870	7,271	12,100
Off-Site Drainage Area (sf)	0	0	0
Total Impervious Area (sf)	5,870	7,271	2,228
Buildings/Lots (sf)	5,870	7,271	0
Impervious Pavement (sf)	0	0	404
Pervious Pavement, % credit (sf)	0	0	0
Impervious Sidewalks (sf)	0	0	1,824
Pervious Sidewalks, % credit (sf)	0	0	0
Other (sf)	0	0	0
Future Development (sf)	0	0	0
Existing Impervious to remain (sf)	0	0	0
Offsite (sf)	0	0	0
Percent Impervious Area (%)	100	100	18.4
Basin Information	BMP #	BMP #	BMP #
Receiving Stream Name			
Receiving Stream Index Number			
Stream Classification			
Total Drainage Area (sf)			
On-Site Drainage Area (sf)			
Off-Site Drainage Area (sf)			
Total Impervious Area (sf)			
Buildings/Lots (sf)			
Impervious Pavement (sf)			
Pervious Pavement, % credit (sf)			
Impervious Sidewalks (sf)			
Pervious Sidewalks, % credit (sf)			
Other (sf)			
Future Development (sf)			
Existing Impervious to remain (sf)			
Offsite (sf)			
Percent Impervious Area (%)			

V. SUBMITTAL REQUIREMENTS

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

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

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

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

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

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

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

VI. CONSULTANT INFORMATION AND AUTHORIZATION

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

Consulting Engineer: Kathryn Espinoza, PE

Consulting Firm: McKim & Creed, Inc.

a. Contact information for consultant listed above:

Mailing Address: 243 N. Front Street

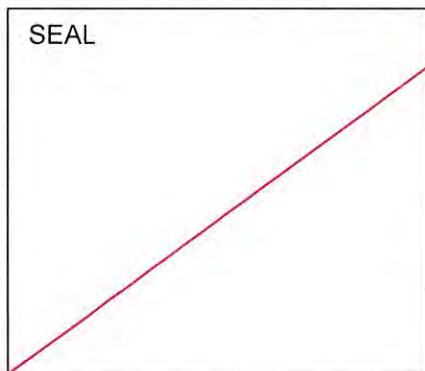
City: Wilmington State: NC Zip: 28401

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

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

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

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



Signature: _____

Date: _____

I, _____, a Notary Public for the State of _____, County of _____, do

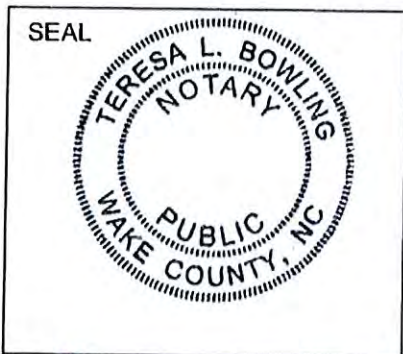
hereby certify that _____ personally appeared before me this day of _____,

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

My commission expires: _____

VIII. APPLICANT'S CERTIFICATION

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



Signature: _____
Date: December 18, 2018

I, Teresa L Bowling, a Notary Public for the State of North Carolina, County of Wake, do hereby certify that William M. McClatchey, Jr. personally appeared before me this day of December 18, 2018, and acknowledge the due execution of the application for a stormwater

permit. Witness my hand and official seal.

Teresa L Bowling
My commission expires: August 25, 2023



City

STORMWATER MANAGEMENT PERMIT APPLICATION FORM
401 CERTIFICATION APPLICATION FORM

CONTECH ENGINEERED SOLUTIONS **STORMFILTER SUPPLEMENT**

*This form must be filled out on line, printed and submitted with all of the required information.
Make sure to also fill out and submit the Required Items Checklist (Section III) and the O&M Agreement (Section IV)*

I. PROJECT INFORMATION	
Project name	The Flats on Front SCM-1
Contact name	Kathryn Espinoza, PE
Phone number	910-343-1048
Date	April 9, 2019
Drainage area number	1

II. DESIGN INFORMATION

Site Characteristics		
Drainage area (A _D)	36,124.00 ft ²	OK
Impervious area	24,325.72 ft ²	
Impervious area	0.56 acres	
% Impervious (I _A)	67.3% %	
Design rainfall depth (R _D)	1.50 in	
Peak Flow Calculations		
1-yr, 24-hr runoff depth		
1-yr, 24-hr intensity		
Pre-development 1-yr, 24-hr runoff		
Post-development 1-yr, 24-hr runoff		
Pre/Post 1-yr, 24-hr peak control		
Storage Volume		
Design volume (WQV)	2,962.42 ft ³	
Adjusted water quality volume (WQV _{Adj})	2,221.81 ft ³	OK
Volume contained before filter	2,236.00 ft ³	
Runoff Coefficient (R _v)	0.66 (unitless)	
Pretreatment credit (estimated or calculated), %pre	30.00%	
Mass loading calculations		
Mean Annual Rainfall, P	57.00 in	
Agency required % removal	85.00%	
Percent Runoff Capture (% capture)	90.00%	
Mean Annual Runoff, V _i	101314.7127 ft ³	=P*Ad*Rv*(43560/12)*%capture
Event Mean Concentration of Pollutant, EMC	70.00 mg/l	(Suggestion: Use 60 for residential, 70 for Commercial, 100 for Industrial)
Annual Mass Load, M _{total}	442.47 lbs	=EMC*V _i *(28.3)*(0.000001)*(2.2046)
Filter System		
Filtration brand	StormFilter	
Cartridge height	27.00 in	
Specific Flow Rate, q	1.00 gpm/ft ²	
SHWT elevation	17.10 ft amsl	
Bottom of the StormFilter vault elevation	9.00 ft amsl	
Clearance (d _{SHWT})	-8.10	
Time to drain the StormFilter (t)	48.00 hours	OK. Submit drainage calculations.
Time to drain the StormFilter (t)	2.00 days	
Cartridge Quantity Calculation		
Mass removed by pretreatment system, M _{pre}	132.74 lbs	=Mtotal * %removal
Mass load to filters after pretreatment, M _{pass1}	309.73 lbs	=Mtotal - Mpre
Estimate the required filter efficiency, E _{filter}	0.79	=1+(%removal - 1)/(1 - %pre)
Mass to be captured by filters, M _{filter}	243.36 lbs	=Mpass1 * Efilter
Maximum Cartridge Flow rate, Q _{cart}	7.50 gpm	=q * (7.5 ft ² /cartridge)
Mass load per cartridge, M _{cart} (lbs)	54.00 lbs	=lookup mass load per cartridge
Number of Cartridges required, N _{mass}	5.00	=ROUNDUP(Mfilter/Mcart,0)
Maximum Treatment Capacity	0.08	=Nmass*(Qcart/449)

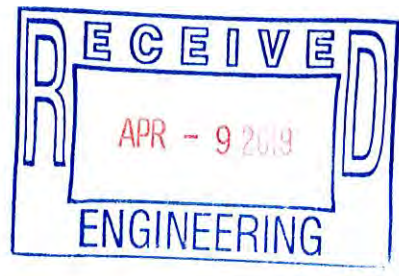


SUMMARY

Maximum Treatment Flow Rate, cfs	0.08
Cartridge Flow Rate, gpm	7.50
Number of Cartridges	5.00

Additional Information

Does volume in excess of the design volume bypass the filter?	Y	Y or N	OK
Is an off-line flow-splitting device used?	Y	Y or N	OK
If draining to SA waters: Does volume in excess of the design volume flow evenly distributed through a vegetated filter?		Y or N	
What is the length of the vegetated filter?		ft	
Does the design use a level spreader to evenly distribute flow?		Y or N	
Is the BMP located at least 30ft from surface waters (50ft if SA waters)?	Y	Y or N	OK
Are the vegetated side slopes equal to or less than 3:1	Y	Y or N	OK
Is the BMP located in a recorded drainage easement with a recorded access easement to a public Right of Way (ROW)?	Y	Y or N	OK





STORMWATER MANAGEMENT PERMIT APPLICATION FORM
CONTECH CERTIFICATION APPLICATION FORM
 ENGINEERED SOLUTIONS

Permit Number: **2019023**
 (to be provided by DWQ)
 City



STORMFILTER SUPPLEMENT

*This form must be filled out on line, printed and submitted with all of the required information.
 Make sure to also fill out and submit the Required Items Checklist (Section III) and the I&M Agreement (Section IV)*

I. PROJECT INFORMATION

Project name	The Flats on Front SCM-2
Contact name	Kathryn Espinoza, PE
Phone number	910-343-1048
Date	April 9, 2019
Drainage area number	2

II. DESIGN INFORMATION

Site Characteristics		
Drainage area (A _D)	138,672.00 ft ²	OK
Impervious area	115,081.72 ft ²	
Impervious area	2.64 acres	
% Impervious (I _A)	83.0% %	
Design rainfall depth (R _D)	1.50 in	
Peak Flow Calculations		
1-yr, 24-hr runoff depth		
1-yr, 24-hr intensity		
Pre-development 1-yr, 24-hr runoff		
Post-development 1-yr, 24-hr runoff		
Pre/Post 1-yr, 24-hr peak control		
Storage Volume		
Design volume (WQV)	13,813.39 ft ³	
Adjusted water quality volume (WQV _{Adj})	10,360.05 ft ³	OK
Volume contained before filter	10,365.00 ft ³	
Runoff Coefficient (R _v)	0.80 (unitless)	
Pretreatment credit (estimated or calculated), %pre	30.00%	
Mass loading calculations		
Mean Annual Rainfall, P	57.00 in	
Agency required % removal	85.00%	
Percent Runoff Capture (% capture)	90.00%	
Mean Annual Runoff, V _i	472418.0577 ft ³	=P*Ad*Rv*(43560/12)*%capture
Event Mean Concentration of Pollutant, EMC	70.00 mg/l	(Suggestion: Use 60 for residential, 70 for Commercial, 100 for Industrial)
Annual Mass Load, M _{total}	2063.20 lbs	=EMC*V _i *(28.3)*(0.000001)*(2.2046)
Filter System		
Filtration brand	StormFilter	
Cartridge height	27.00 in	
Specific Flow Rate, q	1.00 gpm/ft ²	
SHWT elevation	17.90 ft amsl	
Bottom of the StormFilter vault elevation	16.50 ft amsl	
Clearance (d _{SHWT})	-1.40	
Time to drain the StormFilter (t)	48.00 hours	OK. Submit drainage calculations.
Time to drain the StormFilter (t)	2.00 days	
Cartridge Quantity Calculation		
Mass removed by pretreatment system, M _{pre}	618.96 lbs	=Mtotal * %removal
Mass load to filters after pretreatment, M _{pass1}	1444.24 lbs	=Mtotal - Mpre
Estimate the required filter efficiency, E _{filter}	0.79	=1+(%removal - 1)/(1 - %pre)
Mass to be captured by filters, M _{filter}	1134.76 lbs	=Mpass1 * Efilter
Maximum Cartridge Flow rate, Q _{cart}	7.50 gpm	=q * (7.5 ft2/cartridge)
Mass load per cartridge, M _{cart} (lbs)	54.00 lbs	=lookup mass load per cartridge
Number of Cartridges required, N _{mass}	22.00	=ROUNDUP(Mfilter/Mcart,0)
Maximum Treatment Capacity	0.37	=Nmass*(Qcart/449)



SUMMARY

Maximum Treatment Flow Rate, cfs	0.37
Cartridge Flow Rate, gpm	7.50
Number of Cartridges	22.00

Additional Information

Does volume in excess of the design volume bypass the filter?	Y	Y or N	OK
Is an off-line flow-splitting device used?	Y	Y or N	OK
If draining to SA waters: Does volume in excess of the design volume flow evenly distributed through a vegetated filter?		Y or N	
What is the length of the vegetated filter?		ft	
Does the design use a level spreader to evenly distribute flow?		Y or N	
Is the BMP located at least 30ft from surface waters (50ft if SA waters)?	Y	Y or N	OK
Are the vegetated side slopes equal to or less than 3:1	Y	Y or N	OK
Is the BMP located in a recorded drainage easement with a recorded access easement to a public Right of Way (ROW)?	Y	Y or N	OK





STORMWATER MANAGEMENT PERMIT APPLICATION FORM
401 CERTIFICATION APPLICATION FORM

Permit No. 2019023
(to be provided by DWRQ)



City

INFILTRATION TRENCH SUPPLEMENT

This form must be filled out, printed and submitted.

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

I. PROJECT INFORMATION

Project name	Flats on Front
Contact person	Kathryn Espinoza, PE
Phone number	910-343-1048
Date	4/23/2019
Drainage area number	SCM 3

II. DESIGN INFORMATION

Site Characteristics

Drainage area	26,099.00	ft ²
Impervious area	21,439.00	ft ²
Percent impervious	82.1%	%
Design rainfall depth	1.50	in

Peak Flow Calculations

1-yr, 24-hr rainfall depth	3.70	in
1-yr, 24-hr intensity	0.16	in/hr
Pre-development 1-yr, 24-hr discharge	0.02	ft ³ /sec
Post-development 1-yr, 24-hr discharge	1.43	ft ³ /sec
Pre/Post 1-yr, 24-hr peak flow control	1.41	ft ³ /sec

Storage Volume: Non-SA Waters

Minimum volume required	2,575.00	ft ³
Volume provided	2,586.00	ft ³

OK for non-SR waters

Storage Volume: SA Waters

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

Soils Report Summary

Soil type	Urban
Infiltration rate	4.52 in/hr
SHWT elevation	20.20 fmsl

Trench Design Parameters

Drawdown time	0.22	days	OK
Perforated pipe diameter	24.00	in	
Perforated pipe length	89.00	ft	
Number of laterals	5		
Stone type (if used)	57		
Stone void ratio	40		
Stone is free of fines?	Y	(Y or N)	OK



Trench Elevations

Bottom elevation	22.30	fmsl	OK
Storage/overflow elevation	24.80	fmsl	
Top elevation	25.30	fmsl	

Trench Dimensions

Length (long dimension)	91.00	ft	
Width (short dimension)	16.00	ft	
Height (depth)	3.00	ft	OK

Additional Information

Maximum volume to each inlet into the trench?		ac-in	
Length of vegetative filter for overflow		ft	
Number of observation wells	2		OK
Distance to structure	15.00	ft	OK
Distance from surface waters	700.00	ft	OK
Distance from water supply well(s)	-	ft	OK
Separation from impervious soil layer		ft	
Depth of naturally occurring soil above SHWT	2.00	ft	OK
Bottom covered with 4-in of clean sand?	Y	(Y or N)	OK
Proposed drainage easement provided?	Y	(Y or N)	OK
Capures all runoff at ultimate build-out?	Y	(Y or N)	OK
Bypass provided for larger storms?	Y	(Y or N)	OK
Trench wrapped with geotextile fabric?	Y	(Y or N)	OK
Pretreatment device provided	Inlet Sumps		



Filterra Sizing in North Carolina

Design Engineer:
Date

LRS
2/26/2019

Blue Cells = Input
Black Cells = Calculation

Site Information

Project Name	The Flats on Front SCM-4
Project State	North Carolina
Project Location	Wilmington
Drainage Area, Ad	0.13 ac
Impervious Area, Ai	0.13 ac
Impervious Runoff Coefficient, Ci	0.95
Pervious Area, Ap	0.00
Pervious Area Runoff Coefficient, Cp	0.50
% Impervious	100%
Weighted Runoff Coefficient, Cw	0.95

Filterra Sizing Calculations

Filter Surface Area / Drainage Area Ratio	0.39%	Per NCDEQ Manual, Chapter D.3, Table 1
Required Filterra Media Surface Area,	22 ft ²	

Filterra System

Filterra Configuration	Internal Bypass Pipe
Filterra Model ID	FTIBP 6' x 4'

Filterra Sizing in North Carolina

Design Engineer:
Date

LRS
2/25/2019

Blue Cells = Input
Black Cells = Calculation

Site Information

Project Name
Project State
Project Location
Drainage Area, Ad
Impervious Area, Ai
Impervious Runoff Coefficient, Ci
Pervious Area, Ap
Pervious Area Runoff Coefficient, Cp
% Impervious
Weighted Runoff Coefficient, Cw

The Flats on Front SCM-5
North Carolina
Wilmington
0.17 ac
0.17 ac
0.95
0.00
0.50
100%
0.95

Filterra Sizing Calculations

Filter Surface Area / Drainage Area Ratio
Required Filterra Media Surface Area,

0.39%
29 ft²

Per NCDEQ Manual, Chapter D.3, Table 1

Filterra System

Filterra Configuration
Filterra Model ID

Internal Bypass Pipe
FTIBP 8' x 4'

StormFilter 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 StormFilter.
- The sedimentation chamber or forebay will be cleaned out whenever sediment depth exceeds six inches.

The StormFilter system will be inspected **quarterly**. 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:
Entire BMP	Trash/debris is present.	Remove the trash/debris.
Adjacent pavement (if applicable)	Sediment is present on the pavement surface.	Sweep or vacuum the sediment as soon as possible.
Flow diversion structure	The structure is clogged.	Unclog the conveyance and dispose of any sediment offsite.
	The structure is damaged.	Make any necessary repairs or replace if damage is too large for repair.
StormFilter Cartridges	Cartridges not performing as designed – see Contech I&M document to determine if cartridge maintenance is required.	Replace cartridges per manufacturer's recommendations.
Outlet device	Clogging has occurred.	Clean out the outlet device. Dispose of the sediment offsite.
	The outlet device is damaged	Repair or replace the outlet device.
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 DWQ)

All other operation and maintenance activities should be in accordance with Contech's **StormFilter Inspection and Maintenance Procedures** document. Any problems that are found shall be repaired immediately. I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above and have received and understand Contech's **StormFilter Inspection and Maintenance Procedures** document. I agree to notify DWQ of any problems with the system or prior to any changes to the system or responsible party.

Project name: Flats on Front

BMP drainage area number: SCM 1, 2

Print name: William M. McClatchey Jr

Title: Manager

Address: 3605 Glenwood Ave., Suite 445 Raleigh, NC 27612

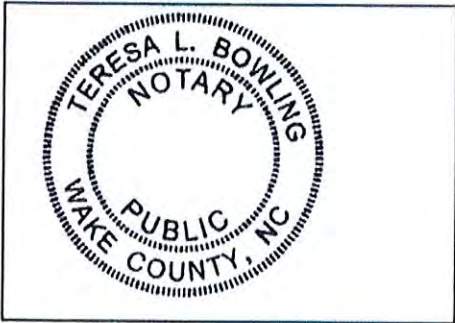
Phone: (404)735-2134

Signature: [Handwritten Signature]

Date: December 18, 2018

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, Teresa L Bowling, a Notary Public for the State of North Carolina
County of Wake, do hereby certify that William M. McClatchey, Jr.
personally appeared before me this 18th day of December, 2018, and acknowledge the due execution of the forgoing sand filter maintenance requirements. Witness my hand and official seal,



Teresa L Bowling
Teresa L Bowling, Notary Public

SEAL

My commission expires August 25, 2023

Infiltration Trench 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 of the infiltration trench will be carefully managed to reduce the sediment load to the sand filter.
- The water level in the monitoring wells will be recorded once a month and after every storm event greater than 1.5 inches if in a Coastal County.

The infiltration trench 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 grass filter strip or other pretreatment area	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.
	Sediment has accumulated to a depth of greater than six inches.	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.
The flow diversion structure (if applicable)	The structure is clogged.	Unclog the conveyance and dispose of any sediment off-site.
	The structure is damaged.	Make any necessary repairs or replace if damage is too large for repair.



BMP element:	Potential problem:	How I will remediate the problem:
The trench	Water is ponding on the surface for more than 24 hours after a storm.	Remove the accumulated sediment from the infiltration system and dispose in a location that will not impact a stream or the BMP.
	The depth in the trench is reduced to 75% of the original design depth.	Remove the accumulated sediment from the infiltration system and dispose in a location that will not impact a stream or the BMP.
	Grass or other plants are growing on the surface of the trench.	Remove the plants, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.
The observation well(s)	The water table is within one foot of the bottom of the system for a period of three consecutive months.	Contact the DWQ Stormwater Unit immediately at 919-733-5083.
	The outflow pipe is clogged.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
	The outflow pipe is damaged.	Repair or replace the pipe.
The emergency overflow berm	Erosion or other signs of damage have occurred at the outlet.	The emergency overflow berm will be repaired or replaced if beyond repair.
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 City of Wilmington of any problems with the system or prior to any changes to the system or responsible party.

Project name: Flats on Front

BMP drainage basin number: SCM #3

Print name: William M. McClatchey Jr.

Title: Manager

Address: 3605 Glenwood Ave., Suite 445 Raleigh, NC 27612

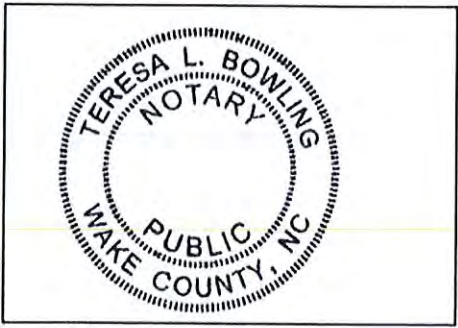
Phone: (404)735-2134

Signature: 

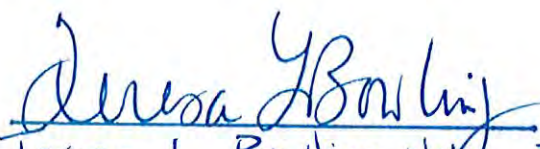
Date: December 18, 2018

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, Teresa L Bowling, a Notary Public for the State of North Carolina, County of Wake, do hereby certify that William M. McClatchey, Jr. personally appeared before me this 18th day of December, 2018, and acknowledge the due execution of the forgoing infiltration trench maintenance requirements. Witness my hand and official seal,



SEAL


Teresa L Bowling, Notary Public

My commission expires August 25, 2023

Permit Number: 2019023
(to be provided by DWQ)
City

Filterra 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 Filterra System.
- Contech includes a 1-year maintenance plan with each system purchase.
- Owners must promptly notify the (maintenance) supplier of any damage to the plant(s), which constitute(s) an integral part of the bioretention technology.

The Filterra System will be inspected quarterly. Records of operation and maintenance will be kept in a known set location and will be available upon request.

Inspection shall be performed as recommended in the most current version of the Filterra Owner's Manual available from the manufacturer. Corrective action shall be taken immediately to repair deficiencies or problems with the installed Filterra system.



Permit Number: _____
(to be provided by DWQ)

All other operation and maintenance activities should be in accordance with Contech's Filterra Inspection and Maintenance Procedures document. Any problems that are found shall be repaired immediately. I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above and have received and understand Contech's Filterra Inspection and Maintenance Procedures document. I agree to notify DWQ of any problems with the system or prior to any changes to the system or responsible party.

Project Name: The Flats on Front

BMP drainage area number: SCM 4&5

Print name: William M. McClatchey Jr

Title: Manager of Chaucer Creek Capital LLC, Manager of CCC Flats on Front LLC, Owner

Address: 3605 Glenwood Ave. Suite 445, Raleigh, NC 27612

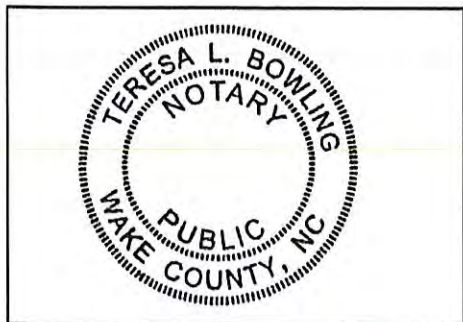
Phone: (404)735-2134

Signature: 

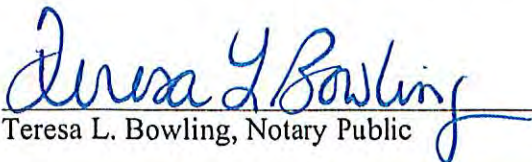
Date: March 20, 2019

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.

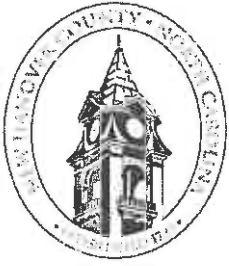
I, Teresa L. Bowling, a Notary Public for the State of North Carolina,
County of Wake, do hereby certify that William M. McClatchey, Jr.
personally appeared before me this 20th day of March, 2019, and acknowledge the due
execution of the forgoing Filterra maintenance requirements. Witness my hand and official seal,



SEAL


Teresa L. Bowling, Notary Public

My commission expires August 25, 2023



NEW HANOVER COUNTY

Engineering Department
230 Government Center Drive · Suite 160
Wilmington, North Carolina 28403
TELEPHONE (910)-798-7139
Fax (910) 798-7051

Beth E. Wetherill, C.P.E.S.C.
Soil Erosion Specialist

March 22, 2019

CCC Flats on Front, LLC
3605 Glenwood Avenue, Suite 445,
Raleigh, North Carolina 27612

RE: Grading Permit #63-18, Flats on Front

Dear Mr. William McClatchey, Jr.;

This office has reviewed the revised subject sedimentation and erosion control plan. We find the plan to be acceptable with performance reservations and modifications.

Please read the permit conditions carefully and return the signed blue original to our office and keep the copy for your records.

A preconstruction meeting is optional prior to any land disturbing activity on this project. Please contact me at (910) 798-7139 if you would like to schedule this meeting in our office. If you choose not to have the preconstruction meeting, please contact us with the date land disturbing activity will take place onsite and once the initial erosion control measures are installed.

The land disturbing fee of **\$2097** is due to be paid to New Hanover County Engineering, to my attention, prior to issuance of any Certificate of Occupancy or Certificate of Compliance.

Please be advised that a copy of the approved soil erosion plan, a copy of the grading permit, a rain gauge and the Combined Inspection Reports must be available at all times on the site.

New Hanover County's Erosion and Sedimentation Control Program is performance oriented requiring protection of the natural resources and adjoining properties. If following the commencement of the project, it is determined that the plan is inadequate to meet the requirements of the New Hanover County's Erosion and Sedimentation Control Ordinance, this office may require revisions in the plan and its implementation to insure compliance with the ordinance.

This permit will not preclude any other permits or approvals necessary for beginning or completing this development. It is the owner's responsibility to have all the approvals or permits that are required prior to beginning construction. Approval of an erosion control plan is conditioned on the applicant's compliance with Federal and State Water Quality laws, regulations and rules.

Respectfully yours,

Beth Easley Wetherill

Beth Easley Wetherill
NHC Soil Erosion Specialist

cc: Kathryn Espinoza PE, Mckim & Creed
Jeff Walton, Senior Planner City of Wilmington



Permit# GP 63-18
Revision to GP 18-06

Permit for a Land Disturbing Activity

New Hanover County
Department of Engineering
230 Government Center Drive - Suite 160
Wilmington, North Carolina 28403
(910) 798-7139

As authorized by the New Hanover County Erosion and Sedimentation Control Ordinance

This permit issued to CCC Flats on Front, LLC authorizes the development of 6.99 acres of land at 1055 North Front Street for Flats on Front in New Hanover County with performance reservations and modifications. This permit issued on March 22, 2019 is subject to compliance with the application and site drawings, all applicable regulations and special conditions and notes set forth below. **Any plan modifications must be approved by this office prior to field changes.**

It is understood by the applicant that a representative of New Hanover County's Engineering Department may inspect the site at any time following the issuance of this Permit. A copy of the approved Soil Erosion Control Plan, this permit, a rain gauge and copies of the Combined Self-Monitoring and Self Inspection Reports must be available at all times at the site.

Failure to execute the provisions of this permit and the approved Soil Erosion Plan, or any other provisions of the New Hanover County Soil Erosion and Sedimentation Control Ordinance, may result in immediate legal action by the County to the limits prescribed by the Ordinance. If the measures outlined on the approved Soil Erosion Control Plan and this Permit prove insufficient, additional Erosion Control measures can and will be required which in turn will be considered provisions of this Permit. This Permit does not preclude any other permits or approvals necessary for beginning or completing this development. Approval of an erosion control plan is conditioned on the applicant's compliance with Federal and State laws, regulations and rules. It is the Permittee's responsibility to obtain all necessary permits and approvals.

SPECIAL CONDITIONS

(THESE CONDITIONS MUST BE FOLLOWED IN ADDITION TO THE PLANS AND SPECIFICATIONS)

- *All the soil erosion control measures will be installed as the site is cleared and maintained throughout construction. This project will be built in 2 phases. Erosion control measures in Phase I includes 2 construction entrances, wire backed silt fences, silt fence outlets, inlet protection, 1 lined diversion ditch with a check dams, concrete washouts and immediate construction and stabilization of a skimmer sediment basin with 3 coir baffles and a 1.5 inch Faircloth skimmer with a 1.4 inch orifice. Phase II includes installation of the stormwater system with additional inlet protection and concrete washouts.
- *Tree Removal Permits and/or Approvals are required from the City of Wilmington and/or New Hanover County prior to issuance of this permit and clearing the site.
- *Silt fence stakes must be steel and will be placed **six feet apart without wire reinforcement** or **eight feet apart with wire reinforcement**. Silt fence is not allowed as inlet protection.
- *This permit does not preclude any permits or approvals which may be necessary such as City of Wilmington or New Hanover County Stormwater, NCDENR Water Quality, C.A.M.A., and the US Army Corps. of Engineers, DEM Solid Waste or any other agencies.
- *No sediment shall leave the site.
- *If plan revisions are necessary you must submit a copy to this office for approval prior to any field changes.

*If soil is brought onto this site or removed from this site, it must come from or be taken to an approved or permitted site to be identified to this office **prior** to being brought onsite or removal from the site.

*All City and/or County and State drainage and stormwater requirements will be adhered to.

*If these measures fail to adequately control erosion, more restrictive measures will be required.

*If any phase of grading ceases for more than 15 working days, the site will be temporarily stabilized.

*All slopes must be stabilized within 21 calendar days of any phase of activity.

The approval of an erosion control plan is conditioned on the applicant's compliance with Federal and State Water Quality laws, regulations and rules.

*Note the required rates for seed, lime, fertilizer and mulch in your seeding specifications.

*Enclosed is a Combined Self-Monitoring and Self-Inspection Form that meets the requirements of both the NPDES Stormwater Permit for Construction Activities, NCG 010000 reporting and the Land Resources Self Inspection Program that satisfies the requirements of the Sedimentation Pollution Control Act. These are mentioned below with specific requirements for each program. These reports are the responsibility of the property owner. They require a rain gauge onsite, inspections and reporting every 7 calendar days and within 24 hours of every ½ inch rain per 24-hour period and at specific phases of construction. Additional copies of this Combined Construction Inspection Report can be found at <http://portal.ncdenr.org/web/lr/erosion> . Reports must be available onsite at all times. If you have questions, please contact New Hanover County Engineering (910) 798-7139 or the Land Quality Section at the NCDENR Regional office at (910) 796-7215.

*Note the NPDES information from the State for sites disturbing 1 acre or more and the reporting requirements. All **NEW** projects permitted after August 3, 2011 **must include** the following surface water withdrawal locations and stabilization requirement designations on the plan in order to qualify for coverage under the most recent NPDES Construction General Permit. All settling basins must have outlet structures that withdraw water from the surface, with the exception of basins or traps that have a drainage area of less than 1 acre. The NPDES permit also requires ground cover within 14 calendar days on disturbed flat areas and ground cover within 7 calendar days on all areas within HQW Zones, perimeter dikes, swales, ditches, perimeter slopes and all slopes steeper than 3:1. Exceptions include slopes that are 10 feet or less in length and not steeper than 2:1 which must be stabilized within 14 calendar days and slopes greater than 50 feet which must be stabilized within 7 calendar days. It requires inspections of all erosion control measures and reporting every 7 days and within 24 hours of every ½ inch rain event in a 24-hour period. This permit also includes other new requirements which are listed in the text of the NPDES Stormwater Discharge Permit for Construction Activities, which is attached to the original copy of each land disturbing permit.

*Note the Land Resources Self Inspection Program Requirements. This program is separate from the NPDES reporting and requires inspection and documentation after each phase of construction. These phases include: Installation of perimeter erosion control measures, Clearing and Grubbing of existing ground cover, Completion of any phase of grading of slopes or fills, Installation of storm drainage facilities, Completion of construction or development, Establishment of permanent ground cover sufficient to restrain erosion and any Deviation from the approved plan.

*Pre-construction meetings are optional. Contact Beth E. Wetherill at (910) 798-7139 to set up a meeting prior to land disturbing activity onsite. If you do not choose to have a preconstruction meeting prior to starting work on site, you should contact us when activity begins and again when the initial measures have been installed.

(Continued) - Page Three

Permit# GP 63-18
Revision to GP 18-06

This Permit will expire one year from date of issue if no construction activity begins on site. This permit may not be amended or transferred to another party without approval of this office.

Acknowledgment of receipt of Permit

Owner

Beth Easley Wetherill

Beth E. Wetherill, C.P.E.S.C.
Soil Erosion Specialist/New Hanover County

By (please print)

Signature



305 Chestnut Street
PO Box 1810
Wilmington, NC 28402
Ph: (910) 341-3258
Fax: (910) 341-7801
www.wmpo.org

August 2, 2018

Mr. Dan Cumbo, PE

Davenport
3722 Shipyard Boulevard, Suite E
Wilmington, NC 28403

RE: Approval of the Traffic Impact Analysis (TIA) associated with the proposed
Flats on Front (Cowan Street Apts.) Development
Wilmington, NC

The WMPO, NCDOT, and City of Wilmington staffs have reviewed the Flats on Front TIA dated June 20, 2018. This development consists of:

- 280 Multi Family Dwelling Units

The Build out year is 2020.

Based on review of the analysis provided in the TIA report, the following improvements are required by the developer:

N. 3rd Street (SR 1627) at North Front Street/Davis Street

- Extend the exclusive left-turn lane on Front Street to maximize storage while providing a 25 foot taper.

N. Front Street at Cowan Street

- Provide a southbound right-turn lane on N. Front Street with 125 feet of storage, 25 feet of full-width deceleration, and 75 feet of taper.

Note that the above requirements are based on the TIA, dated June 20, 2018, but we have been made aware of a new site plan that has been submitted to the City of Wilmington which has an increase in land-use intensity. If this proposed plan is approved by the City, then a revised TIA may be required.

Wilmington Urban Area Metropolitan Planning Organization

City of Wilmington • Town of Carolina Beach • Town of Kure Beach • Town of Wrightsville Beach
County of New Hanover • Town of Belville • Town of Leland • Town of Navassa • County of Brunswick
County of Pender • Cape Fear Public Transportation Authority • North Carolina Department of Transportation

If changes are made to the proposed site driveways and/or use, the current trip distribution may need to be modified and would require a revised Traffic Impact Analysis to be submitted for review by the NCDOT, WMPO, and City of Wilmington. This approval would become null and void.

The applicant is required to obtain all applicable City of Wilmington and NCDOT permits for access to the road network. A copy of this TIA approval shall be included with any NCDOT driveway permit application. All applicable NCDOT and City of Wilmington technical standards and policies shall apply.

Please contact me at 910-772-4170 with any questions regarding this approval.

Sincerely,



Fred Royal, PE, CFM
Project Engineer
Wilmington Metropolitan Planning Organization

cc: Ben Hughes, PE, District Engineer, NCDOT
Alex Stewart, PE, Deputy District Engineer, NCDOT
Madi Lee, EI, Development Review Engineer, NCDOT
Jon Roan, Assistant District Engineer, NCDOT
Jessi Leonard, PE, Division Traffic Engineer, NCDOT
Kirsten Spirakis, PE, Sr. Assistant Traffic Engineer, Division 3, NCDOT
Don Bennett, PE, City Traffic Engineer, City of Wilmington
Denys Vielkanowitz, PE, Signal System Management Engineer, City of Wilmington
Brian Chambers, Senior Planner, City of Wilmington
Mike Kozlosky, Executive Director, WMPO
Amy Kimes, PE, Senior Project Engineer, WMPO
Bill McDow, Transportation Planner, WMPO