

## 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: **347 MCO, LLC**  
PROJECT: **Carroll at The Avenue**  
ADDRESS: **349 Military Cutoff Road**  
PERMIT #: **2023050**  
DATE: **2/15/2024**

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 2/15/2032 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 2/2/2024.
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.
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 Article 7 Division 5 and any other applicable section of the Land Development Code.
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 15th day of February, 2024

A handwritten signature in blue ink, appearing to read 'Anthony Caudle', is written over a horizontal line.

for Anthony Caudle, City Manager  
City of Wilmington



Public Services
Engineering
212 Operations Center Dr
Wilmington, NC 28412
910 341-7807
91 341-5881 fax
wilmingtonnc.gov
Dial 711 TTY/Voice

STORMWATER MANAGEMENT PERMIT APPLICATION FORM
(Form SWP 2.3)

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.):

Carroll at the Avenue

2. Location of Project (street address):

349 Military Cutoff Road

City: Wilmington County: New Hanover Zip: 28405

II. PERMIT INFORMATION

1. Specify the type of project (check one): [ ] Low Density [x] High Density
[ ] Offsite Stormwater System [ ] Drainage Plan [ ] Redevelopment [ ] Other

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

City of Wilmington: State - NCDEQ/DEMLR:

2. Is the project currently covered (whole or in part) by an existing City or State (NCDEQ/DEMLR) Stormwater Permit? [ ] Yes [x] No

If yes, list all applicable Stormwater Permit Numbers:

City of Wilmington: State - NCDEQ/DEMLR:

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

[ ] CAMA Major [x] Sedimentation/Erosion Control [x] 404/401 Permit

III. CONTACT INFORMATION

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

Applicant / Organization: 347 MCO, LLC

Signing Official & Title: Stephen E. Anderson, CFO

a. Contact information for Applicant / Signing Official:

Address: 201 North Elm Street, Suite 201

City: Greensboro State: NC Zip: 27401

Phone: 336-274-8531 Email: dburton@cipconst.com

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

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

2. Print Property Owner's name and title (if different from the applicant).

Property Owner / Organization: \_\_\_\_\_

Signing Official & Title: \_\_\_\_\_

a. Contact information for Property Owner:

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

3. (Optional) Other Contact name and title (such as a construction supervisor) who would like to be copied on all correspondence:

Other Contact Person / Organization: \_\_\_\_\_

Signing Official & Title: \_\_\_\_\_

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

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

4. Agent Authorization: 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: Robert Balland, PE

Consulting Firm: Paramounte Engineering, Inc.

a. Contact information for consultant listed above:

Mailing Address: 122 Cinema Drive

City: Wilmington State: NC Zip: 28403

Phone: (910) 791-6707 Email: rballand@paramounte-eng.com

**IV. PROJECT INFORMATION**

1. Total Property Area: 1938420 square feet
2. Total Coastal Wetlands Area: 0 square feet
3. Total Surface Water Area: 0 square feet
4. Total Property Area (1) – Total Coastal Wetlands Area (2) – Total Surface Water Area (3) = Total Project Area: 1938420 square feet.
5. Existing Impervious Surface within Project Area: 289,238 square feet
6. Existing Impervious Surface to be Removed/Demolished: 289,238 square feet
7. Existing Impervious Surface to Remain: 0 square feet
8. Total Onsite (within property boundary) Newly Constructed Impervious Surface (in square feet):

|  |                |
|--|----------------|
| Buildings/Lots   | 329,300        |
| Impervious Pavement  | 246,155        |
| Pervious Pavement (total area / adjusted area w credit applied)  | 0 / 0          |
| Impervious Sidewalks   | 186,988        |
| Pervious Sidewalks (total area / adjusted area w credit applied) | 0 / 0          |
| Other  |                |
| Future Development   | 190,774        |
| <b>Total Onsite Newly Constructed Impervious Surface</b>         | <b>953,217</b> |

9. Total Onsite Impervious Surface  
(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) 953,217 square feet
10. Net Change in Onsite Impervious Surface (+ for net increase, - for net decrease) 663,979 square feet
11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 34.25 %
12. Total Offsite Newly Constructed Impervious Area (in square feet):

|  |                  |
|--|------------------|
| Impervious Pavement  | 7,700 Driveways  |
| Pervious Pavement (total area / adjusted area w credit applied)  | /                |
| Impervious Sidewalks   | 15,000 M.U.P.    |
| Pervious Sidewalks (total area / adjusted area w credit applied) | /                |
| Other (Describe)   |                  |
| <b>Total Offsite Newly Constructed Impervious Surface</b>        | <b>22,700 sf</b> |

13. Complete the following information for each Stormwater SCM drainage area. Low Density and Drainage Plan projects (with no permeable pavements) may omit this section and skip to Section V.

| Basin Information                          | Type of SCM<br>SCM # 1 Wet Pond | Type of SCM | Type of SCM<br>SCM # |
|--|---------------------------------|-------------|----------------------|
| Receiving Stream Name                      | Howe Creek                      |             |                      |
| Receiving Stream Index Number              | 18-87-23                        |             |                      |
| Stream Classification                      | SA;ORW                          |             |                      |
| Total Drainage Area (sf)                   | 1,312,158                       |             |                      |
| On-Site Drainage Area (sf)                 | 1,312,158                       |             |                      |
| Off-Site Drainage Area (sf)                |                                 |             |                      |
| Buildings/Lots (sf)                        | 329300                          |             |                      |
| Impervious Pavement (sf)                   | 246155                          |             |                      |
| Pervious Pavement (total / adjusted) (sf)  | 0 / 0                           | /           | /                    |
| Impervious Sidewalks (sf)                  | 186,988                         |             |                      |
| Pervious Sidewalks (total / adjusted) (sf) | /                               | /           | /                    |
| Other (sf)                                 |                                 |             |                      |
| Future Development (sf)                    | 190,774                         |             |                      |
| Existing Impervious to remain (sf)         |                                 |             |                      |
| Offsite (sf)                               |                                 |             |                      |
| <b>Total Impervious Area (sf)</b>          | 953,217                         |             |                      |
| <b>Percent Impervious Area (%)</b>         | <del>73.1%</del><br>72.64%      |             |                      |

72.64%

| Basin Information                          | Type of SCM<br>SCM # | Type of SCM<br>SCM # | Type of SCM<br>SCM # |
|--|----------------------|----------------------|----------------------|
| Receiving Stream Name                      |                      |                      |                      |
| Receiving Stream Index Number              |                      |                      |                      |
| Stream Classification                      |                      |                      |                      |
| Total Drainage Area (sf)                   |                      |                      |                      |
| On-Site Drainage Area (sf)                 |                      |                      |                      |
| Off-Site Drainage Area (sf)                |                      |                      |                      |
| Buildings/Lots (sf)                        |                      |                      |                      |
| Impervious Pavement (sf)                   |                      |                      |                      |
| Pervious Pavement (total / adjusted) (sf)  | /                    | /                    | /                    |
| Impervious Sidewalks (sf)                  |                      |                      |                      |
| Pervious Sidewalks (total / adjusted) (sf) | /                    | /                    | /                    |
| Other (sf)                                 |                      |                      |                      |
| Future Development (sf)                    |                      |                      |                      |
| Existing Impervious to remain (sf)         |                      |                      |                      |
| Offsite (sf)                               |                      |                      |                      |
| <b>Total Impervious Area (sf)</b>          |                      |                      |                      |
| <b>Percent Impervious Area (%)</b>         |                      |                      |                      |



**V. SUBMITTAL REQUIREMENTS**

Only complete application packages will be accepted and reviewed by the City. A complete package includes all of the items listed below. Copies of forms, deed restrictions, checklists as well as detailed instructions on how to complete this application form may be downloaded from the City of Wilmington Plan Review website below:

<https://www.wilmingtonnc.gov/departments/engineering/plan-review/stormwater-permits>

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

Please indicate that the following required information have been provided by initialing in the space provided for each item.

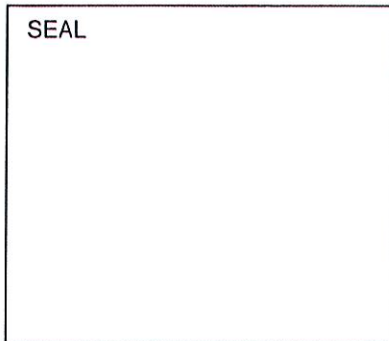
|  | Initials           |
|--|--------------------|
| 1. One completed Stormwater Management Permit Application Form.  | RPB<br>_____       |
| 2. One completed Supplement Form for each SCM proposed (signed, sealed and dated).   | RPB<br>_____       |
| 3. One completed Operation & Maintenance agreement for each <u>type</u> of SCM.  | RPB<br>_____       |
| 4. Proposed Deed Restrictions and Restrictive Covenants (for all subdivisions)   | <u>NA</u><br>_____ |
| 5. Appropriate stormwater permit review fee.   | RPB<br>_____       |
| 6. Minimum requirements identified on the Engineering Plan Review Checklist have been addressed.   | RPB<br>_____       |
| 7. One set of calculations (sealed, signed and dated).   | RPB<br>_____       |
| 8. A detailed narrative (one to two pages) describing the stormwater treatment/management system for the project.  | RPB<br>_____       |
| 9. A USGS map identifying the site location. If the receiving stream is reported as class SA or the receiving stream drains to class SA waters within ½ mile of the site boundary, include the ½ mile radius on the map. | RPB<br>_____       |
| 10. A copy of the soils report, if applicable. Must meet NCDEQ SCM Manual and MDC requirements for the type of SCM proposed. The report must include boring logs and a map of boring locations.                          | RPB<br>_____       |
| 11. One full set of plans <u>folded to 8.5" x 14"</u> .  | RPB<br>_____       |
| 12. A map delineating and labeling the drainage area for each SCM proposed.  | RPB<br>_____       |
| 13. A map delineating and labeling the drainage area for each inlet and conveyance proposed.   | RPB<br>_____       |
| 14. A digital copy of the entire submittal package (can be submitted via flash drive, CD, email, dropbox or other file sharing system).  | RPB<br>_____       |

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

I, \_\_\_\_\_, certify that I own the property identified in this permit application, and thus give permission to \_\_\_\_\_ with \_\_\_\_\_ 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 \_\_\_\_\_ 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: \_\_\_\_\_

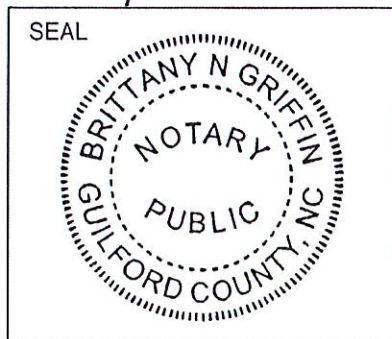


I, \_\_\_\_\_, a Notary Public for the State of \_\_\_\_\_, County of \_\_\_\_\_, do hereby certify that \_\_\_\_\_ personally appeared before me this day of \_\_\_\_\_, \_\_\_\_\_, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,  
\_\_\_\_\_  
My commission expires: \_\_\_\_\_

**VII. APPLICANT'S CERTIFICATION**

I, STEPHEN ANDERSON 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 rules under the City's Comprehensive Stormwater Ordinance.

Signature: [Signature] Date: 9-14-22



I, Brittany N Griffin, a Notary Public for the State of North Carolina, County of Guilford, do hereby certify that Stephen Anderson personally appeared before me this day of September, 14 2022 and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,  
[Signature]  
My commission expires: 9/3/25

# SUPPLEMENT-EZ COVER PAGE

SWP2023050

FORMS LOADED

| PROJECT INFORMATION |  |                       |
|---------------------|--|-----------------------|
| 1                   | Project Name                           | Carroll at the Avenue |
| 2                   | Project Area (ac)                      | 44.5 ac               |
| 3                   | Coastal Wetland Area (ac)              | 0                     |
| 4                   | Surface Water Area (ac)                | 0                     |
| 5                   | Is this project High or Low Density?   | High                  |
| 6                   | Does this project use an off-site SCM? | No                    |

| COMPLIANCE WITH 02H.1003(4) |  |     |
|-----------------------------|--|-----|
| 7                           | Width of vegetated setbacks provided (feet)                            | 50  |
| 8                           | Will the vegetated setback remain vegetated?                           | Yes |
| 9                           | If BUA is proposed in the setback, does it meet NCAC 02H.1003(4)(c-d)? | No  |
| 10                          | Is streambank stabilization proposed on this project?                  | No  |

| NUMBER AND TYPE OF SCMs: |                                       |   |
|--------------------------|---------------------------------------|---|
| 11                       | Infiltration System                   |   |
| 12                       | Bioretention Cell                     |   |
| 13                       | Wet Pond                              | 1 |
| 14                       | Stormwater Wetland                    |   |
| 15                       | Permeable Pavement                    |   |
| 16                       | Sand Filter                           |   |
| 17                       | Rainwater Harvesting (RWH)            |   |
| 18                       | Green Roof                            |   |
| 19                       | Level Spreader-Filter Strip (LS-FS)   |   |
| 20                       | Disconnected Impervious Surface (DIS) |   |
| 21                       | Treatment Swale                       |   |
| 22                       | Dry Pond                              |   |
| 23                       | StormFilter                           |   |
| 24                       | Silva Cell                            |   |
| 25                       | Bayfilter                             |   |
| 26                       | Filterra                              |   |

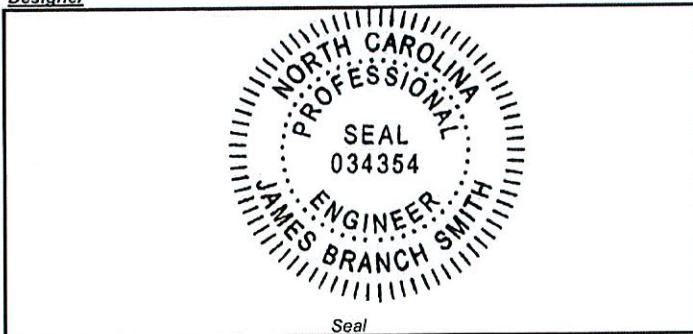
FORMS LOADED

| DESIGNER CERTIFICATION |                   |                           |
|------------------------|-------------------|---------------------------|
| 27                     | Name and Title:   | J. Branch Smith, PE       |
| 28                     | Organization:     | Paramounte Engineering    |
| 29                     | Street address:   | 122 Cinema Drive          |
| 30                     | City, State, Zip: | Wilmington, NC 28403      |
| 31                     | Phone number(s):  | 910-791-6707              |
| 32                     | Email:            | bsmith@paramounte-eng.com |

**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.

*Designer*



*J. Branch Smith*  
 Signature of Designer

9-21-22  
 Date

# DRAINAGE AREAS

|   |  |     |
|---|--|-----|
| 1 | Is this a high density project?                                | Yes |
| 2 | If so, number of drainage areas/SCMs                           | 1   |
| 3 | Does this project have low density areas?                      | No  |
| 4 | If so, number of low density drainage areas                    | 0   |
| 5 | Is all/part of this project subject to previous rule versions? | No  |

FORMS LOADED

| DRAINAGE AREA INFORMATION |  | Entire Site  | 1            |
|---------------------------|--|--------------|--------------|
| 4                         | Type of SCM  | Pond         | Pond         |
| 5                         | Total drainage area (sq ft)  | 1312158      | 1312158      |
| 6                         | Onsite drainage area (sq ft)                                       | 1312158      | 1312158      |
| 7                         | Offsite drainage area (sq ft)                                      | 0            | 0            |
| 8                         | Total BUA in project (sq ft)                                       | 953217 sf    | 953217 sf    |
| 9                         | New BUA on subdivided lots (subject to permitting) (sq ft)         |              |              |
| 10                        | New BUA not on subdivided lots (subject to permitting) (sf)        | 953217 sf    | 953217 sf    |
| 11                        | Offsite BUA (sq ft)  |              |              |
| 12                        | Breakdown of new BUA not on subdivided lots:                       |              |              |
|                           | - Parking (sq ft)  | 246155 sf    | 246155 sf    |
|                           | - Sidewalk (sq ft)   | 186988 sf    | 186988 sf    |
|                           | - Roof (sq ft)   | 329300 sf    | 329300 sf    |
|                           | - Roadway (sq ft)  |              |              |
|                           | - Future (sq ft)   | 190774 sf    | 190774 sf    |
|                           | - Other, please specify in the comment box below (sq ft)           |              |              |
| 13                        | New infiltrating permeable pavement on subdivided lots (sq ft)     |              |              |
| 14                        | New infiltrating permeable pavement not on subdivided lots (sq ft) |              |              |
| 15                        | Existing BUA that will remain (not subject to permitting) (sq ft)  |              |              |
| 16                        | Existing BUA that is already permitted (sq ft)                     |              |              |
| 17                        | Existing BUA that will be removed (sq ft)                          | 289238 sf    | 289238 sf    |
| 18                        | Percent BUA  | 49%          | 149%         |
| 19                        | Design storm (inches)  | 1 yr.        | 2 yr.        |
| 20                        | Design volume of SCM (cu ft)                                       | 145,490 cf   | 145,490 cf   |
| 21                        | Calculation method for design volume                               | 1yr Pre-Post | 1yr Pre-Post |

| ADDITIONAL INFORMATION |   |
|------------------------|---|
| 22                     | Please use this space to provide any additional information about the drainage area(s): |
|                        |   |

## Wet Detention Basin Operation and Maintenance Agreement

I will keep a maintenance record on this SCM. This maintenance record will be kept in a log in a known set location. Any deficient SCM 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 pollutant removal efficiency of the SCM.

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

**This system (check one):**

**does**     **does not**    **incorporate a vegetated filter at the outlet.**

Important maintenance procedures:

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

After the wet detention pond is established, it should be inspected **once a month and within 24 hours after every storm event greater than 1.5 inches**. Records of operation and maintenance should be kept in a known set location and must be available upon request.

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

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

| SCM element:            | Potential problem:   | How to remediate the problem:   |
|-------------------------|--|---|
| The inlet device:       | The pipe is clogged.   | Unclog the pipe. Dispose of the sediment off-site.  |
|                         | The pipe is cracked or otherwise damaged.  | Replace the pipe.   |
|                         | Erosion is occurring in the swale.   | Regrade the swale if necessary, to smooth it over and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.  |
|                         | Stone verge is clogged or covered in sediment (if applicable).                                   | Remove sediment and replace with clean stone.   |
| The forebay             | Sediment has accumulated to a depth greater than the original design depth for sediment storage. | Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.  |
|                         | Erosion has occurred.  | Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.   |
|                         | Weeds are present.   | Remove the weeds, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.   |
| The vegetated shelf     | Best professional practices show that pruning is needed to maintain optimal plant health.        | Prune according to best professional practices  |
|                         | Weeds are present.   | Remove the weeds, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.   |
|                         | Plants are dead, diseased or dying.  | Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if a soil test indicates it is necessary. |
| The main treatment area | Sediment has accumulated to a depth greater than the original design sediment storage depth.     | Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.  |

Permit Number: 2023050  
 (to be provided by City of Wilmington)  
 SCM Drainage Basin #: 1

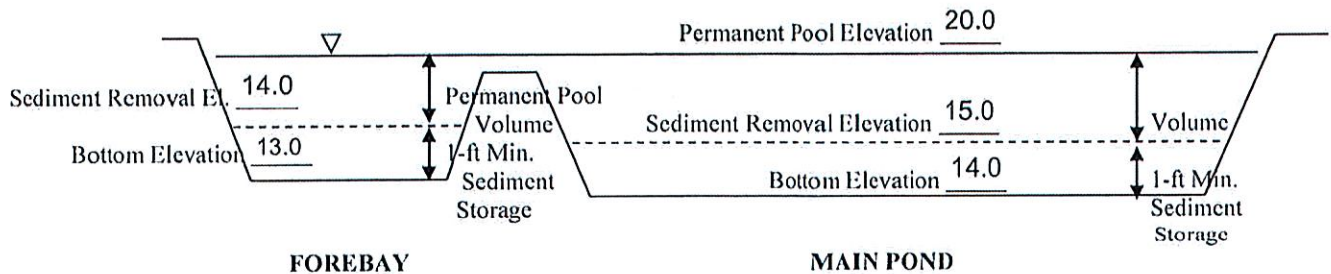
| SCM element:                        | Potential problem:  | How I will remediate the problem:   |
|-------------------------------------|---|---|
| The main treatment area (continued) | Algal growth covers over 25% of the area.   | Consult a professional to remove and control the algal growth.                        |
|                                     | Cattails, phragmites or other invasive plants cover 50% of the basin surface.                               | Remove the plants by wiping them with pesticide (do not spray).                       |
| The embankment                      | Shrubs have started to grow on the embankment.  | Remove shrubs immediately.  |
|                                     | Evidence of muskrat or beaver activity is present.  | Use traps to remove muskrats and consult a professional to remove beavers.            |
|                                     | A tree has started to grow on the embankment.   | Consult a dam safety specialist to remove the tree.                                   |
|                                     | An annual inspection by an appropriate professional shows that the embankment needs repair. (if applicable) | Make all needed repairs.  |
| The outlet device                   | Clogging has occurred.  | Clean out the outlet device. Dispose of the sediment off-site.                        |
|                                     | The outlet device is damaged  | Repair or replace the outlet device.  |
| The receiving water                 | Erosion or other signs of damage have occurred at the outlet.   | Contact the local NC Department of Environment and Natural Resources regional Office. |

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

When the permanent pool depth reads 5.0 feet in the main pond, the sediment shall be removed.

When the permanent pool depth reads 6.0 feet in the forebay, the sediment shall be removed.

**BASIN DIAGRAM**  
 (fill in the blanks)



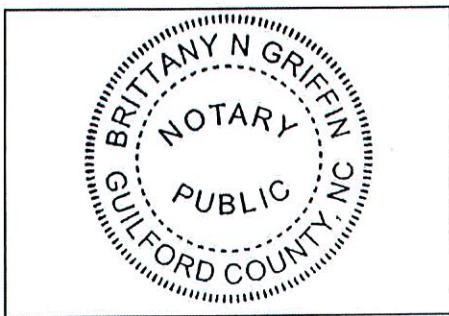
I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above. I agree to notify the City of Wilmington of any problems with the system or prior to any changes to the system or responsible party.

Project name: The Avenue  
SCM drainage basin number: 1

Print name: Roy E. Carroll, II  
Title: Manager  
Address: 201 N. Elm Street, Greensboro, NC 27401  
Phone: 336-274-8531  
Signature: [Handwritten Signature]  
Date: \_\_\_\_\_

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, Brittany N Griffin, a Notary Public for the State of North Carolina, County of Guilford, do hereby certify that Roy E Carroll II personally appeared before me this 10 day of July, 2023, and acknowledge the due execution of the forgoing wet detention basin maintenance requirements. Witness my hand and official seal,



SEAL

My commission expires 9/3/25 [Handwritten Signature]



## Level Spreader -Vegetated Filter Strip, Restored Riparian Buffer Operation and Maintenance Agreement

I will keep a maintenance record on this SCM. This maintenance record will be kept in a log in a known set location. Any deficient SCM 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 pollutant removal efficiency of the SCM(s).

**Important maintenance procedures:**

- Immediately after the filter strip is established, any newly planted vegetation will be watered twice weekly if needed until the plants become established (commonly six weeks).
- Once a year, the filter strip will be reseeded to maintain a dense growth of vegetation
- Stable groundcover will be maintained in the drainage area to reduce the sediment load to the vegetation.
- Two to three times a year, grass filter strips will be mowed and the clippings harvested to promote the growth of thick vegetation with optimum pollutant removal efficiency. Turf grass should not be cut shorter than 3 to 5 inches and may be allowed to grow as tall as 12 inches depending on aesthetic requirements (NIPC, 1993). Forested filter strips do not require this type of maintenance.
- Once a year, the soil will be aerated if necessary.
- Once a year, soil pH will be tested and lime will be added if necessary.

After the filter strip is established, it will be inspected **quarterly 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.

| SCM element:                             | Potential problem:                                     | How to remediate the problem:  |
|--|--|--|
| The entire SCM                           | Trash/debris is present.                               | Remove the trash/debris.   |
| The perimeter of the SCM                 | Areas of bare soil and/or erosive gullies have formed. | Regrade the soil if necessary, to remove the gull and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application. |
|  | Vegetation is too short or too long.                   | Maintain vegetation at a height of approximately six inches.   |
| The flow splitter device (if applicable) | The flow splitter device is clogged.                   | Unclog the conveyance and dispose of any sediment off-site.  |
|  | The flow splitter device is damaged.                   | Make any necessary repairs or replace if damage is too large for repair.   |

| SCM element:                | Potential problem:   | How to remediate the problem:   |
|-----------------------------|--|---|
| The swale and the level lip | The swale is clogged with sediment.  | Remove the sediment and dispose of it off-site.   |
|                             | The level lip is cracked, settled, undercut, eroded or otherwise damaged.                    | Repair or replace lip.  |
|                             | There is erosion around the end of the level spreader that shows stormwater has bypassed it. | Regrade the soil to create a berm that is higher than the level lip, and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application. |
|                             | Trees or shrubs have begun to grow on the swale or just downslope of the level lip.          | Remove them.  |
| The bypass channel          | Areas of bare soil and/or erosive gullies have formed.                                       | Regrade the soil if necessary, to remove the gully, and then reestablish proper erosion control.  |
|                             | Turf reinforcement is damaged or riprap is rolling downhill.                                 | Study the site to see if a larger bypass channel is needed (enlarge if necessary). After this, reestablish the erosion control material.  |
| The filter strip            | Grass is too short or too long (if applicable).  | Maintain grass at a height of approximately three to six inches.  |
|                             | 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 is building up on the filter strip.   | Remove the sediment and restabilize the soil with vegetation if necessary. Provide lime and a one-time fertilizer application.  |
|                             | Plants are desiccated.   | Provide additional irrigation and fertilizer as needed.   |
|                             | Plants are dead, diseased or dying.  | Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application.                                    |
|                             | Nuisance vegetation is choking out desirable species.  | Remove vegetation by hand if possible. If pesticide is used, do not allow it to get into the receiving water.   |
| The receiving water         | Erosion or other signs of damage have occurred at the outlet.                                | Contact the NCDENR Regional Office, or the 401 Oversight Unit at 919-733-1786.  |

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

Project name: The Avenue

SCM drainage basin number: 1

Print name: Roy E. Carroll, II

Title: Manager

Address: 201 N. Elm Street, Greensboro, NC, 27401

Phone: 336-274-8531

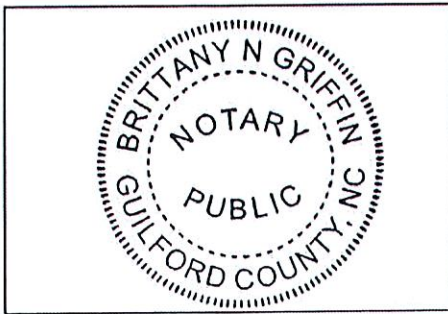
Signature: [Handwritten Signature]

Date: \_\_\_\_\_

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, Brittany N Griffin, a Notary Public for the State of North Carolina, County of Guilford, do hereby certify that Roy E Carroll, II personally appeared before me this 10 day of July, 2023, and acknowledge the due execution of the forgoing filter strip, riparian buffer, and/or level spreader maintenance requirements.

Witness my hand and official seal,



SEAL

My commission expires 9/3/25 [Handwritten Signature]