

## **COMPREHENSIVE STORMWATER MANAGEMENT PERMIT**

### **DRAINAGE PLAN**

#### **SECTION 1 – APPROVAL**

Having reviewed the construction drawings, application and all supporting materials, the City of Wilmington has determined that the proposed development meets the requirements for Drainage Plan Approval through the City of Wilmington's Comprehensive Stormwater Ordinance.

PERMIT HOLDER: **Mr. Robert Holding**  
PROJECT: **Airlie View**  
ADDRESS: **1205 Airlie Road**  
PERMIT #: **2020029**  
DATE: **December 03, 2020**

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This permit shall be effective from the date of issuance until modified or rescinded and shall be subject to the following specified conditions and limitations: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 12/03/2020.
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.
4. 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.
  - c. Further subdivision, acquisition, lease or sale of any part of the project area.
  - d. Filling in, altering, or piping of any vegetative or piped conveyance shown on the approved plan.
  - e. Construction of any permitted future areas shown on the approved plans.
5. A copy of the approved plans and specifications shall be maintained on file by the Permittee.

6. During construction, erosion shall be kept to a minimum and any eroded areas of the system will be repaired immediately.
7. 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.
8. All applicable operation & maintenance agreements pertaining to all pervious pavement systems 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 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.
9. The permittee shall at all times provide the operation and maintenance necessary to assure the pervious pavement system functions at optimum efficiency. The approved Operation and Maintenance Plan must be followed in its entirety and maintenance must occur at the scheduled intervals including, but not limited to:
  - a. Scheduled inspections
  - b. Sediment removal/vacuum sweep surface
  - c. Immediate repair of eroded areas adjacent to pervious pavement
10. Each component of the stormwater management system should be inspected once a quarter and within 24 hours after every storm event greater than 1.5 inches.
11. Records of inspection, maintenance and repair for the permitted pervious pavement 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.
12. Upon completion of construction, before a Certificate of Occupancy shall be granted, and prior to operation 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 field location, type, depth and invert of all 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.
13. 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.



**Public Services**

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

14. 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 of the Land Development Code.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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 3<sup>rd</sup> day of December, 2020

  
\_\_\_\_\_  
for Sterling Cheatham, City Manager  
City of Wilmington

**Public Services**

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212 Operations Center Dr  
Wilmington, NC 28412  
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**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.):

AIRLIE VIEW SUBDIVISION

2. Location of Project (street address):

1205 AIRLIE ROAD, WILMINGTON NC

City: Wilmington

County: New Hanover

Zip: 28409

**II. PERMIT INFORMATION**

1. Specify the type of project (check one): ☒ Low Density ☐ 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 ☒ 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 ☐ Sedimentation/Erosion Control ☐ 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: ROBERT HOLDING (OWNER)

Signing Official & Title: ROBERT HOLDING (OWNER)

a. Contact information for Applicant / Signing Official:

Address: 1205 AIRLIE ROAD

City: WILMINGTON State: NC Zip: 28409

Phone: 206-948-8643 Email: bobholding@me.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: ADAM H. GRADY

Consulting Firm: HANOVER DESIGN SERVICES

a. Contact information for consultant listed above:

Mailing Address: 1123 FLORAL PARKWAY

City: WILMINGTON State: NC Zip: 28403

Phone: 910-343-8002 Email: AGRADY@HDSILM.COM

#### IV. PROJECT INFORMATION

1. Total Property Area: 94960 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: 94960 square feet.
5. Existing Impervious Surface within Project Area: 10,854 square feet
6. Existing Impervious Surface to be Removed/Demolished: 4672 square feet
7. Existing Impervious Surface to Remain: 6182 square feet
8. Total Onsite (within property boundary) Newly Constructed Impervious Surface (in square feet):

Buildings/Lots	
Impervious Pavement	2434
Pervious Pavement (total area / adjusted area w credit applied)	15172 / 0
Impervious Sidewalks	N/A
Pervious Sidewalks (total area / adjusted area w credit applied)	N/A / N/A
Other	
Future Development	7500
<b>Total Onsite Newly Constructed Impervious Surface</b>	<b>9934</b>

9. Total Onsite Impervious Surface  
(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) 16,116 square feet
10. Net Change in Onsite Impervious Surface (+ for net increase, - for net decrease) 5,262 square feet
11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 17 %
12. Total Offsite Newly Constructed Impervious Area (in square feet):

Impervious Pavement	
Pervious Pavement (total area / adjusted area w credit applied)	/
Impervious Sidewalks	
Pervious Sidewalks (total area / adjusted area w credit applied)	/
Other (Describe)	
<b>Total Offsite Newly Constructed Impervious Surface</b>	<b>N/A</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	Permeable Pavement SCM # 1	Type of SCM SCM #	Type of SCM SCM #
Receiving Stream Name	WRIGHTSVILLE RECREATIONAL AREA		
Receiving Stream Index Number	18-87-24		
Stream Classification	SB:#		
Total Drainage Area (sf)	94,960		
On-Site Drainage Area (sf)	94,960		
Off-Site Drainage Area (sf)	0		
Buildings/Lots (sf)	N/A		
Impervious Pavement (sf)	2,434		
Pervious Pavement (total / adjusted) (sf)	15,172 / 0	/	/
Impervious Sidewalks (sf)	N/A		
Pervious Sidewalks (total / adjusted) (sf)	/	/	/
Other (sf)			
Future Development (sf)	7,500		
Existing Impervious to remain (sf)	6,182		
Offsite (sf)	0		
<b>Total Impervious Area (sf)</b>	2,434		
<b>Percent Impervious Area (%)</b>	17		

Basin Information	Type of SCM SCM #	Type of SCM SCM #	Type of SCM 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.  | _____    |
| 2. One completed Supplement Form for each SCM proposed (signed, sealed and dated).   | _____    |
| 3. One completed Operation & Maintenance agreement for each <u>type</u> of SCM.  | _____    |
| 4. Proposed Deed Restrictions and Restrictive Covenants (for all subdivisions)   | _____    |
| 5. Appropriate stormwater permit review fee.   | _____    |
| 6. Minimum requirements identified on the Engineering Plan Review Checklist have been addressed.   | _____    |
| 7. One set of calculations (sealed, signed and dated).   | _____    |
| 8. A detailed narrative (one to two pages) describing the stormwater treatment/management system for the project.  | _____    |
| 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. | _____    |
| 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.                          | _____    |
| 11. One full set of plans <u>folded to 8.5" x 14"</u> .  | _____    |
| 12. A map delineating and labeling the drainage area for each SCM proposed.  | _____    |
| 13. A map delineating and labeling the drainage area for each inlet and conveyance proposed.   | _____    |
| 14. A digital copy of the entire submittal package (can be submitted via flash drive, CD, email, dropbox or other file sharing system).  | _____    |

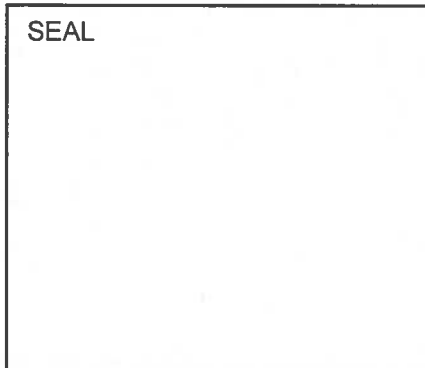


**VI. PROPERTY OWNER AUTHORIZATION** (If Section III(2) has been filled out, complete this section)

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: \_\_\_\_\_



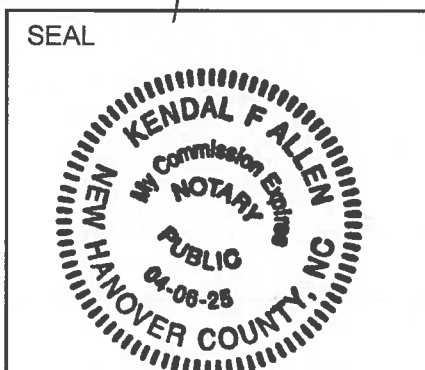
I, \_\_\_\_\_, a Notary Public for the State of \_\_\_\_\_, County of \_\_\_\_\_, do hereby certify that \_\_\_\_\_ personally appeared before me this day of \_\_\_\_\_, \_\_\_\_\_, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

My commission expires: \_\_\_\_\_

**VII. APPLICANT'S CERTIFICATION**

I, ROBERT HOLDING 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: \_\_\_\_\_ Date: 9-11-2020



I, Kendal F. Allen, a Notary Public for the State of North Carolina, County of New Hanover, do hereby certify that Robert Holding personally appeared before me this day of 9/11/20, \_\_\_\_\_, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

My commission expires: 9/16/25

# SUPPLEMENT-EZ COVER PAGE

FORMS LOADED

## PROJECT INFORMATION

1	Project Name	Arle View
2	Project Area (ac)	94960
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)	n/a
8	Will the vegetated setback remain vegetated?	yes
9	Is BUA other than as listed in .1003(4)(c-d) out of the setback?	no
10	Is streambank stabilization proposed on this project?	no

## NUMBER AND TYPE OF SCMs:

11	Infiltration System	0
12	Bioretention Cell	0
13	Wet Pond	0
14	Stormwater Wetland	0
15	Permeable Pavement	1
16	Sand Filter	0
17	Rainwater Harvesting (RWH)	0
18	Green Roof	0
19	Level Spreader-Filter Strip (LS-FS)	0
20	Disconnected Impervious Surface (DIS)	0
21	Treatment Swale	0
22	Dry Pond	0
23	StormFilter	0
24	Silva Cell	0
25	Bayfilter	0
26	Filterra	0

FORMS LOADED

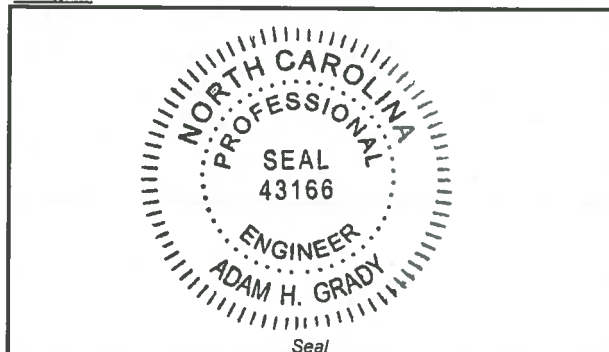
## DESIGNER CERTIFICATION

27	Name and Title:	Adam Grady, PE
28	Organization:	Hanover Design Services, PA
29	Street address:	1123 Floral Parkway
30	City, State, Zip:	Wilmington, NC 28403
31	Phone number(s):	919-343-8002
32	Email:	agrady@hdsilm.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



  
Signature of Designer

9-10-20  
Date

# DRAINAGE AREAS

1	Is this a high density project?	Yes
2	If so, number of drainage areas/SCMs	1
3	Is all/part of this project subject to previous rule versions?	No

[FORMS LOADED](#)

DRAINAGE AREA INFORMATION		Entire Site	1
4	Type of SCM	PICP	PICP
5	Total BUA in project (sq ft)	9934 sf	2434 sf
6	New BUA on subdivided lots (subject to permitting) (sq ft)	9934 sf	2434 sf
7	New BUA outside of subdivided lots (subject to permitting) (sf)		
8	Offsite - total area (sq ft)	sf	
9	Offsite BUA (sq ft)	sf	
10	Breakdown of new BUA outside subdivided lots:		
	- Parking (sq ft)		
	- Sidewalk (sq ft)		
	- Roof (sq ft)		
	- Roadway (sq ft)	2434 sf	2434 sf
	- Future (sq ft)	7500 sf	7500 sf
	- Other, please specify in the comment box below (sq ft)		
11	New infiltrating permeable pavement on subdivided lots (sq ft)	15172 sf	15172 sf
12	New infiltrating permeable pavement outside of subdivided lots (sq ft)		
13	Existing BUA that will remain (not subject to permitting) (sq ft)	6182 sf	6182 sf
14	Existing BUA that is already permitted (sq ft)		
15	Existing BUA that will be removed (sq ft)	4672 sf	4672 sf
16	Percent BUA	17%	17%
17	Design storm (inches)	1.5"	1.5"
18	Design volume of SCM (cu ft)	3138 cf	3138 cf
19	Calculation method for design volume	Water Quality Storm	Water Quality Storm

ADDITIONAL INFORMATION	
20	Please use this space to provide any additional information about the drainage area(s):
Drainage area 1 only includes pervious driveway with Ribbon Curb. Existing BUA is for the house only	

DRAINAGE AREA INFORMATION		Entire Site	1
4	Type of SCM	N/A	Permeable Pavement
5	Total BUA from project (sq ft)	9934 sf	9934 sf
6	1995 rules		
	SL 2006-246		
	2008 rules		
	2017 rules	9934 sf	9934 sf
7	New BUA on subdivided lots (subject to permitting) (sq ft)	9934 sf	9934 sf
	1995 rules		
	SL 2006-246		
	2008 rules		
	2017 rules	9934 sf	9934 sf
8	New BUA outside of subdivided lots (subject to permitting) (sf)		
	1995 rules		
	SL 2006-246		
	2008 rules		
	2017 rules	sf	sf
9	Offsite - total area (sq ft)		
	1995 rules		
	SL 2006-246		
	2008 rules		

	2017 rules	sf	sf
10	<b>Offsite BUA (sq ft)</b>		
	1995 rules		
	SL 2006-246		
	2008 rules		
	2017 rules	sf	sf
11	<b>Design storm (inches)</b>		
	1995 rules		
	SL 2006-246		
	2008 rules		
	2017 rules	1.5"	1.5"
12	<b>Breakdown of new BUA:</b>		
	- Parking (sq ft)		
	- Sidewalk (sq ft)		
	- Roof (sq ft)		
	- Roadway (sq ft)	2434 sf	2434 sf
	- Future (sq ft)	7500 sf	7500 sf
	- Other, please specify in the comment box below (sq ft)		
13	New infiltrating permeable pavement on subdivided lots (sq ft)	15172 sf	15172 sf
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15	Existing BUA that will remain (not subject to permitting) (sq ft)	6182 sf	6182 sf
16	Existing BUA that is already permitted (sq ft)		
17	Existing BUA that will be removed (sq ft)	4672 sf	4672 sf
18	Percent BUA		
19	Design volume of SCM (cu ft)	3138 cf	3138 cf
20	Calculation method for design volume	Water Quality Storm	Water Quality Storm

ADDITIONAL INFORMATION	
21	Please use this space to provide any additional information about the drainage area(s):
<p>Removed BUA will be the poritons of the existing asphalt driveway that lies in the vicinity of the proposed permeable driveway.</p>	



# PERMEABLE PAVEMENT

1	Drainage area number	1
2	Design volume of SCM (cu ft)	2200 cf
3	Area of permeable pavement to be installed (square feet)	15172 sf
4	Area of screened roof runoff that is directed to pavement (square feet)	sf
5	Area of additional built-upon area runoff that is directed to pavement (square feet)	2434 sf
6	Area of incidental, unavoidable runoff from adjacent stable pervious areas (square feet)	n/a

## GENERAL MDC FROM 02H .1050

7	Is the SCM sized to treat the SW from all surfaces at build-out?	No
8	Is the SCM located away from contaminated soils?	Yes
5	What are the side slopes of the SCM (H:V)?	3:1
6	Does the SCM have retaining walls, gabion walls or other engineered side slopes?	No
7	Are the inlets, outlets, and receiving stream protected from erosion (10-year storm)?	No
8	Is there an overflow or bypass for inflow volume in excess of the design volume?	Yes
9	What is the method for dewatering the SCM for maintenance?	
10	If applicable, will the SCM be cleaned out after construction?	Yes
11	Does the maintenance access comply with General MDC (8)?	Yes
12	Does the drainage easement comply with General MDC (9)?	Yes
13	If the SCM is on a single family lot, does (will?) the plat comply with General MDC (10)?	Yes
14	Is there an O&M Agreement that complies with General MDC (11)?	Yes
15	Is there an O&M Plan that complies with General MDC (12)?	Yes
16	Does the SCM follow the device specific MDC?	Yes
17	Was the SCM designed by an NC licensed professional?	Yes

## PERMEABLE PAVEMENT MDC FROM 02H .1055

18	Is this a detention or infiltration permeable pavement system?	Infiltration
19	Proposed slope of the subgrade surface (%)	<2
20	Are terraces or baffles provided?	Yes
21	SHWT elevation (fmsl)	12.83-22.38
22	Storage elevation of the design rainfall depth (fmsl)	
23	Will toxic pollutants be stored or handled on or near the permeable pavement?	No
24	Does the proposed pavement surface comply with .1055(6)?	Yes
25	Will runoff from pervious surfaces be directed away from the pavement?	Yes
26	Maximum adjacent area directed to a single point onto the permeable pavement (sq ft)	n/a
27	Is at least one observation well per terrace been provided at the low point(s)?	Yes
28	Have edge restraints been provided?	Yes
29	Will the subgrade be graded when dry?	Yes
30	Will the permeable pavement be protected from sediment during construction?	Yes
31	Will an in-situ permeability test be conducted after site stabilization?	Yes

## For Infiltrating Pavement Systems

32	Was the soil investigated in the footprint and at the elevation of the subgrade?	Yes
33	Soil infiltration rate (in/hr)	13 in/hr
34	Is a detailed hydrogeologic study attached if the separation is between 1 and 2 feet?	No
35	Is additional media being added to the soil profile?	No
36	Proposed slope of the subgrade surface (%)	2%
37	Top of the subgrade (bottom of the aggregate) (fmsl)	Varies See Plan
38	Dewatering time (hours)	1 hrs

## For Detention Pavement Systems

39	Drawdown time (hours)	
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## Aggregate

40	Aggregate depth (in)	9 in
41	Aggregate porosity (n)	30
42	Size of aggregate to be used in the subbase	1-0.2"
43	Will the aggregate be washed?	Yes

## ADDITIONAL INFORMATION

44	Please use this space to provide any additional information about the permeable pavement system(s): SHWT and Subgrade Elevations varies @ different driveway locations see plan.
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## Permeable Pavement 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:

At all times, the permeable pavement shall be kept free of:

- Debris and particulate matter through frequent blowing that removes such debris, particularly during the fall and spring.
- Piles of soil, sand, mulch, building materials or other materials that could deposit particulates on the permeable pavement.
- Piles of snow and ice.
- Chemicals of all kinds, including deicers.

The permeable pavement will be inspected **once a quarter**. 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 permeable pavement	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary, to remove the gully, then plant ground cover and water until established.
	A vegetated area drains toward the pavement.	Regrade the area so that it drains away from the pavement, then plant ground cover and water until established.
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.



SCM element:	Potential problem:	How to remediate the problem:
The surface of the permeable pavement	Trash/debris present.	Remove the trash/debris.
	Weeds.	Do not pull the weeds (may pull out media as well). Spray them with a systemic herbicide such as glyphosate and then return within the week to remove them by hand. (Another option is to pour boiling water on them or steam them.)
	Sediment.	Vacuum sweep the pavement.
	Rutting, cracking or slumping or damaged structure.	Consult an appropriate professional.
Observation well	Water present more than five days after a storm event.	Clean out clogged underdrain pipes. Consult an appropriate professional for clogged soil subgrade.
Educational sign	Missing or is damaged.	Replace the sign.
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 NC Department of Environment and Natural Resources Regional Office.

Permit Number: \_\_\_\_\_  
(to be provided by City of Wilmington)

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

Project name: AIRLIE VIEW

SCM drainage basin number: \_\_\_\_\_

Print name: ROBERT HOLDING

Title: OWNER

Address: 1205 AIRLIE ROAD, WILMINGTON, NC 28409

Phone: 206-948-8643

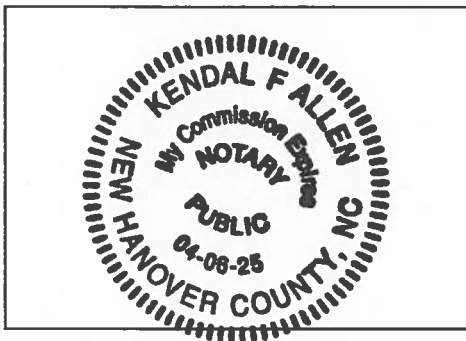
Signature: \_\_\_\_\_

Date: 9-11-2020

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, Kendal F Allen, a Notary Public for the State of North Carolina, County of New Hanover, do hereby certify that Robert Holding personally appeared before me this 11 day of September, 2020, 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 4/6/25