



November 29, 2023

Mr. Jason Ruegg, Mnager/Member  
OTH Realty, LLC  
1701 N. JEL Wade Drive  
Wilmington, NC 28401

**Subject: Stormwater Management Permit No. 2022024R1  
Off the Hook Yacht Sales  
High Density - REVISION**

Dear Mr. Ruegg:

The City of Wilmington Engineering Division has received a request for a revision to the Stormwater Management Permit for The Off the Hook Yacht Sales facility. Having reviewed the application and all supporting materials, the City of Wilmington has determined that the proposed revision meets the requirements of the City of Wilmington's Comprehensive Stormwater Ordinance.

The revisions include:

- Change front parking to gravel
- remove landscape islands and minor building revisions.
- no change in overall BUA.

Please be aware all terms and conditions of the permit 8/22/2022 remain in full force and effect. Any additional changes to the approved plans must be approved by this office prior to construction.

The issuance of the plan revision does not preclude the permittee from complying with all other applicable statutes, rules, regulations or ordinances which may have jurisdiction over the proposed activity, and obtaining a permit or approval prior to construction.

The revised stamped, approved stormwater management drawings will be released for construction by the Wilmington Planning Division under separate cover. Please replace any old plan sheets from the approved set with the new, revised sheet. An electronic copy of the approved drawing set, permit, application and supplementary documents will be maintained by the Wilmington Engineering Division. If you have any questions, or need additional information, please contact Robert Gordon at (910) 341-5856 or rob.gordon@wilmingtonnc.gov

Sincerely,

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

for Anthony Caudle, City Manager  
City of Wilmington

cc: Adam Grady, Hanover Design Services  
Brian Chambers, Wilmington Development Services/Planning



**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**

- Project Name (subdivision, facility, or establishment name - should be consistent with project name on plans, specifications, letters, operation and maintenance agreements, etc.):  
Off The Hook Yacht Sales
- Location of Project (street address):  
1701 N 5th Ave  
 City: Wilmington County: New Hanover Zip: 28401

**II. PERMIT INFORMATION**

- 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: \_\_\_\_\_
- 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: 2022024 State – NCDEQ/DEMLR: \_\_\_\_\_
- Additional Project Permit Requirements (check all applicable):  
 CAMA Major  Sedimentation/Erosion Control  404/401 Permit

**III. CONTACT INFORMATION**

- Print Applicant / Signing Official's name and title (the developer, property owner, lessee, designated government official, individual, etc. who owns the project):  
 Applicant / Organization: OTH REALTY LLC  
 Signing Official & Title: Jason Ruegg, Member Manager

a. Contact information for Applicant / Signing Official:

Address: 1701 N J.E.L. WADE DR.  
City: WILMINGTON State: NC Zip: 28401  
Phone: 910-239-9344 Email: connor@offthehookys.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 SRVICES, PA

a. Contact information for consultant listed above:

Mailing Address: 1123 FLORAL PARKWAY  
City: WILMINGTON State: NC Zip: 28403  
Phone: 910-343-8002 Email: 910-343-8002

**IV. PROJECT INFORMATION**

1. Total Property Area: 75,588 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: 75588 square feet.
5. Existing Impervious Surface within Project Area: 0 square feet
6. Existing Impervious Surface to be Removed/Demolished: 0 square feet
7. Existing Impervious Surface to Remain: N/A square feet
8. Total Onsite (within property boundary) Newly Constructed Impervious Surface (in square feet):

Buildings/Lots	14,000
Impervious Pavement	46390
Pervious Pavement (total area / adjusted area w credit applied)	/
Impervious Sidewalks	152
Pervious Sidewalks (total area / adjusted area w credit applied)	0 /
Other (Describe)	0
Future Development	1852
<b>Total Onsite Newly Constructed Impervious Surface</b>	<b>62,394</b>

9. Total Onsite Impervious Surface  
(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) 62,394 square feet
10. Net Change in Onsite Impervious Surface (+ for net increase, - for net decrease) 62,394 square feet
11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 83 %
12. Total Offsite Newly Constructed Impervious Area (in square feet):

Impervious Pavement	5,270
Pervious Pavement (total area / adjusted area w credit applied)	/
Impervious Sidewalks	4,735
Pervious Sidewalks (total area / adjusted area w credit applied)	/
Other (Describe)	
<b>Total Offsite Newly Constructed Impervious Surface</b>	<b>10,005</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	INFILTRATION TRENCH SCM #1	INFILTRATION TRENCH SCM # 2	Type of SCM SCM #
Receiving Stream Name	Northeast Cape Fear	Northeast Cape Fear	
Receiving Stream Index Number	18-74-61	18-74-61	
Stream Classification	SC;Sw	SC;Sw	
Total Drainage Area (sf)	61,804	13,784	
On-Site Drainage Area (sf)	61,804	13,784	
Off-Site Drainage Area (sf)	0	0	
Buildings/Lots (sf)	11,080	2,920	
Impervious Pavement (sf)	39,224	7,441	
Pervious Pavement (total / adjusted) (sf)	0 /	0 /	/
Impervious Sidewalks (sf)	152	0	
Pervious Sidewalks (total / adjusted) (sf)	0 /	0 /	/
Other (sf)	0	0	
Future Development (sf)	876	976	
Existing Impervious to remain (sf)	0	0	
Offsite (sf)	0	0	
<b>Total Impervious Area (sf)</b>	<b>51,332</b>	<b>11,062</b>	
<b>Percent Impervious Area (%)</b>	<b>83.1</b>	<b>80.3</b>	

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**

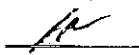
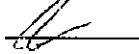
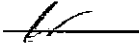
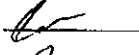
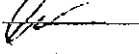

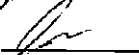
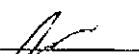



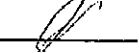
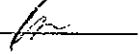
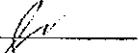
Only complete application packages will be accepted and reviewed by the City. A complete package includes all of the items listed below. Copies of forms, deed restrictions, checklists as well as detailed instructions on how to complete this application form may be downloaded from the City of Wilmington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

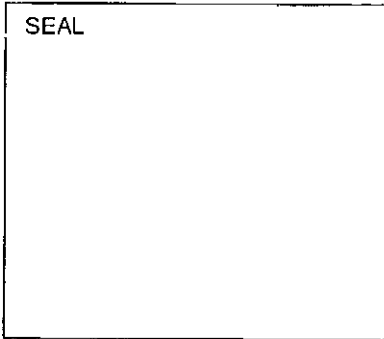
- |  | Initials  |
|--|---|
| 1. One completed Stormwater Management Permit Application Form.  |    |
| 2. One completed Supplement Form for each SCM proposed (signed, sealed and dated).   |    |
| 3. One completed Operation & Maintenance agreement for each <u>type</u> of SCM.  |   |
| 4. Proposed Deed 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: \_\_\_\_\_



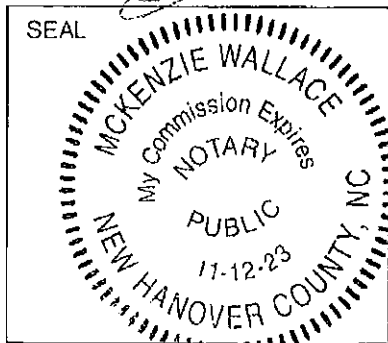
I, \_\_\_\_\_, a Notary Public for the State of \_\_\_\_\_, County of \_\_\_\_\_, do hereby certify that \_\_\_\_\_ personally appeared before me this day of \_\_\_\_\_, \_\_\_\_\_, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

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

**VII. APPLICANT'S CERTIFICATION**

I, Jason Ruegg, 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: 11-9-21



I, MCKENZIE WALLACE, a Notary Public for the State of NC, County of NEW HANOVER do hereby certify that JASON RUEGG personally appeared before me this day of NOVEMBER 9, 2021, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

My commission expires: 11/12/2023

# SUPPLEMENT-EZ COVER PAGE

FORMS LOADED

**RECEIVED**

By Jeff Walton at 11:04 am, Apr 26, 2022

PROJECT INFORMATION		
1	Project Name	Off The Hook Yacht Sales
2	Project Area (ac)	75,588
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)	na
8	Will the vegetated setback remain vegetated?	N/A
9	If BUA is proposed in the setback, does it meet NCAC 02H.1003(4)(c-d)?	N/A
10	Is streambank stabilization proposed on this project?	No

NUMBER AND TYPE OF SCMs:		
11	Infiltration System	2
12	Bioretention Cell	
13	Wet Pond	
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	

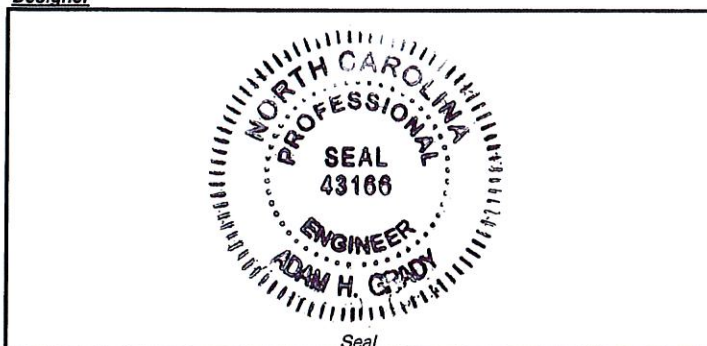
FORMS LOADED


DESIGNER CERTIFICATION		
27	Name and Title:	Adam Grady, PE Project Engineer
28	Organization:	Hanover Design Services, PA
29	Street address:	1123 Floral Parkway
30	City, State, Zip:	Wilmington, NC 28403
31	Phone number(s):	910-343-8002
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

  
 \_\_\_\_\_  
 Date



# DRAINAGE AREAS

1	Is this a high density project?	Yes
2	If so, number of drainage areas/SCMs	2
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	2
4	Type of SCM	Infiltration Basin	Infiltration Basin	Infiltration Basin
5	Total drainage area (sq ft)	75,588	61,804	13784
6	Onsite drainage area (sq ft)	75588	61,804	13784
7	Offsite drainage area (sq ft)		0	
8	Total BUA in project (sq ft)	62394 sf	51332 sf	11062 sf
9	New BUA on subdivided lots (subject to permitting) (sq ft)	62394 sf	51332 sf	11062 sf
10	New BUA not on subdivided lots (subject to permitting) (sf)			
11	Offsite BUA (sq ft)		sf	sf
12	Breakdown of new BUA not on subdivided lots:	46390	39224	7141
	- Parking (sq ft)	<del>44908 sf</del>	<del>37740 sf</del>	<del>7168 sf</del>
	- Sidewalk (sq ft)	152 sf	152 sf	
	- Roof (sq ft)	14000 sf	11080 sf	2920 sf
	- Roadway (sq ft)			
	- Future (sq ft)	1852	<del>2960 sf</del>	<del>976 sf</del> OK
	- Other, please specify in the comment box below (sq ft)		876	976
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)			
18	Percent BUA	83%	83%	80%
19	Design storm (inches)	1.5 in	1.5 in	1.5 in
20	Design volume of SCM (cu ft)	10645 sf	8723 cf	1922 cf
21	Calculation method for design volume	scs	scs	scs

## ADDITIONAL INFORMATION

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

# INFILTRATION SYSTEM

1	Drainage area number	1	2
2	Minimum required treatment volume (cu ft)	5475 cf	1180 cf
<b>GENERAL MDC FROM 02H .1050</b>			
3	Is the SCM sized to treat the SW from all surfaces at build-out?	Yes	Yes
4	Is the SCM located away from contaminated soils?	Yes	Yes
5	What are the side slopes of the SCM (H:V or enter "Vertical" for trenches)?	2:1	2:1
6	Does the SCM have retaining walls, gabion walls or other engineered side slopes?	No	No
7	Are the inlets, outlets, and receiving stream protected from erosion (10-year storm)?	Yes	Yes
8	Is there an overflow or bypass for inflow volume in excess of the design volume?	Yes	Yes
9	What is the method for dewatering the SCM for maintenance?	Pump (preferred)	Pump (preferred)
10	If applicable, will the SCM be cleaned out after construction?	Yes	Yes
11	Does the maintenance access comply with General MDC (8)?	Yes	Yes
12	Does the drainage easement comply with General MDC (9)?	Yes	Yes
13	If the SCM is on a single family lot, does (will?) the plat comply with General MDC (10)?	N/A	N/A
14	Is there an O&M Agreement that complies with General MDC (11)?	Yes	Yes
15	Is there an O&M Plan that complies with General MDC (12)?	Yes	Yes
16	Does the SCM follow the device specific MDC?	Yes	Yes
17	Was the SCM designed by an NC licensed professional?	Yes	Yes

## INFILTRATION SYSTEM MDC FROM 02H .1051

18	Proposed slope of the subgrade surface (%)	0%	0%
19	Are terraces or baffles provided?	No	No
20	Type of pretreatment:	Other	Other

## Soils Data

21	Was the soil investigated in the footprint and at the elevation of the infiltration system?	Yes	No
22	SHWT elevation (fmsl)	28.50	28.50
23	Depth to SHWT per soils report (in)	100.00	100.00
24	Ground elevation at boring in soils report (fmsl)	36.65	36.65
25	Is a detailed hydrogeologic study attached if the separation is between 1 and 2 feet?	N/A	N/A
26	Soil infiltration rate (in/hr)	22.94	22.94
27	Factor of safety (FS) (2 is recommended):	2.00	2.00

## Elevations

29	Bottom elevation (fmsl)	30.5 ft	30.5 ft
30	Storage elevation (fmsl)	32.6 ft	32.5 ft
31	Bypass elevation (fmsl)	32.6 ft	32.5 ft

## For Basins Only

32	Bottom surface area (ft <sup>2</sup> )		
33	Storage elevation surface area (ft <sup>2</sup> )		

## For Trenches Only

34	Length (ft)	45 ft	123 ft
35	Width (ft)	149 ft	12 ft
36	Perforated pipe diameter, if applicable (inches)	na	na
37	Number of laterals	na	na
38	Total length of perforated piping	na	na
39	Stone type, if applicable	57	57
40	Stone porosity (%)	40%	40%
41	Is stone free of fines?	Yes	Yes
42	Is the stone wrapped in geotextile fabric?	Yes	Yes
43	Has at least one inspection port been provided?	Yes	Yes

## Volumes/Drawdown

44	Design volume of SCM (cu ft)	8723 cf	1922 cf
45	Time to draw down (hours)	1.1 hrs	1.3 hrs

## ADDITIONAL INFORMATION

46	Please use this space to provide any additional information about the infiltration system(s):		
<p>SC-310 Chambers were used in the design. Dimentions 34"x16"x85.4", 5 Borings were tested and the highest observed shwt was 28.5 and that's what was used.</p>			

## Infiltration Trench 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.

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.

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.

SCM element:	Potential problem:	How to remediate the problem:
The entire SCM	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 SCM.
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.

SCM element:	Potential problem:	How to 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 SCM.
	Grass or other plants are growing on the surface of the trench.	Do not pull the weeds (may pull out media as well). Wipe 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.)
The observation well(s)	Water present more than three days after a storm event.	Clean out any clogged underdrain pipes. Consult an appropriate professional for clogged soil subgrade.
The emergency overflow berm	Erosion or other signs of damage have occurred at the outlet.	Repair or replace the berm.
The receiving water	Erosion or other signs of damage have occurred at the outlet.	Repair the damage and improve the flow dissipation structure.

## INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT

A. INSPECTION PORTS (IF PRESENT)

A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN

A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED

A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG

A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)

A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

B. ALL ISOLATOR PLUS ROWS

B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS

B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE

i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY

ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE

B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS

A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED

B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN

C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

### NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS

OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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: Off The Hook Yacht Sales

SCM drainage basin number: 1

Print name: Jason Ruegg

Title: Member

Address: 1701 N.J.E.L. WADE DR.

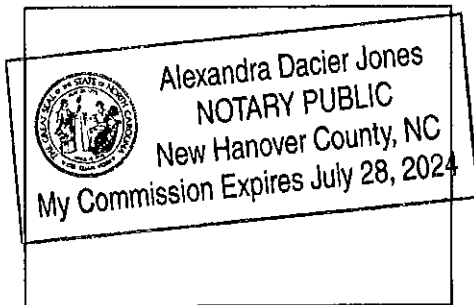
Phone: 910-239-9344

Signature: [Handwritten Signature]

Date: 7-25-2023

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, ALEXANDRA JONES, a Notary Public for the State of NC, County of NEW HANOVER, do hereby certify that JASON RUEGG personally appeared before me this 25 day of JULY, 2023, and acknowledge the due execution of the forgoing infiltration trench maintenance requirements. Witness my hand and official seal,



SEAL

My commission expires 7-28-2024

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

## Infiltration Trench 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.

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.

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.

SCM element:	Potential problem:	How to remediate the problem:
The entire SCM	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 SCM.
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.

SCM element:	Potential problem:	How to 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 SCM.
	Grass or other plants are growing on the surface of the trench.	Do not pull the weeds (may pull out media as well). Wipe 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.)
The observation well(s)	Water present more than three days after a storm event.	Clean out any clogged underdrain pipes. Consult an appropriate professional for clogged soil subgrade.
The emergency overflow berm	Erosion or other signs of damage have occurred at the outlet.	Repair or replace the berm.
The receiving water	Erosion or other signs of damage have occurred at the outlet.	Repair the damage and improve the flow dissipation structure.

## INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT

A. INSPECTION PORTS (IF PRESENT)

A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN

A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED

A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG

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Project name: Off The Hook Yacht Sales

SCM drainage basin number: 2

Print name: Jason Ruegg

Title: Member

Address: 1701 N. J.E.L. WADE DR.

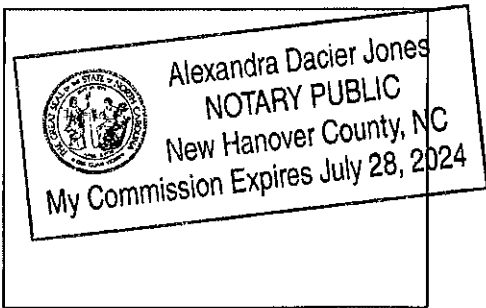
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My commission expires 7-28-2024