



6/28/2021

Shawn Strickland
SCI North Carolina Funeral Services, LLC
1929 Allen Parkway
Houston, TX 77019

**Subject: Stormwater Management Permit No. SWP2019008R1
Greenlawn Mausoleum Crypt
High Density**

Dear Mr. Strickland:

The City of Wilmington Engineering Division has received a request for a revision to the Stormwater Management Permit for Greenlawn Mausoleum Crypt. 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:

Addition of 3,403 sf Mausoleum Crypt. Modified application and supplements attached.

Please be aware all terms and conditions of the permit Issued on March 15, 2019 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 Eric Seidel, PE at (910) 765-7461 or eric.seidel@wilmingtonnc.gov

Sincerely,

for Tony Caudle, Interim City Manager
City of Wilmington

cc: Richard Collier, PE, Mckim & Creed
Jeff Walton, Wilmington Development Services/Planning

SWP2019008R1

RECEIVED

By waltonj at 11:17 am, May 13, 2021



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.):
Greenlawn Mausoleum Crypt

2. Location of Project (street address):
1311 Shipyard Blvd.

City: Wilmington County: New Hanover Zip: 28401

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? [x] Yes [] No

If yes, list all applicable Stormwater Permit Numbers:
City of Wilmington: SWP 2019008 State - NCDEQ/DEMLR:

3. Additional Project Permit Requirements (check all applicable):
[] CAMA Major [x] 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: SCI North Carolina Funeral Services. LLC

Signing Official & Title: Shawn Stickland

a. Contact information for Applicant / Signing Official:

Address: 1929 Allen Parkway
City: Houston State: TX Zip: 77019
Phone: (704)236-0637 Email: shawn.stickland@sci-us.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: Richard M. Collier

Consulting Firm: McKim & Creed Inc.

a. Contact information for consultant listed above:

Mailing Address: 243 N. Front St.
City: Wilmington State: NC Zip: 28401
Phone: (910)343-1048 Email: rcollier@mckimcreed.com

IV. PROJECT INFORMATION

1. Total Property Area: 172,062 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: 172,062 square feet.
5. Existing Impervious Surface within Project Area: 61,677 square feet
6. Existing Impervious Surface to be Removed/Demolished: 0 square feet
7. Existing Impervious Surface to Remain: 61,677 square feet
8. Total Onsite (within property boundary) Newly Constructed Impervious Surface (in square feet):

| | |
|--|--------------|
| Buildings/Lots | 1,887 |
| Impervious Pavement | |
| Pervious Pavement (total area / adjusted area w credit applied) | / |
| Impervious Sidewalks | 1,516 |
| Pervious Sidewalks (total area / adjusted area w credit applied) | / |
| Other (Describe) | |
| Future Development | 2,255 |
| Total Onsite Newly Constructed Impervious Surface | 3,403 |

9. Total Onsite Impervious Surface
(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) 65,080 square feet
10. Net Change in Onsite Impervious Surface (+ for net increase, - for net decrease) +3,403 square feet
11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 37.8 %
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) | |
| Total Offsite Newly Constructed Impervious Surface | |

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 BMP #1 | Infiltration SCM # 2 | Type of SCM SCM # |
|--|------------------------|-------------------------|----------------------|
| Receiving Stream Name | Cape Fear | Cape Fear | |
| Receiving Stream Index Number | 18-(71) | 18-(71) | |
| Stream Classification | SC | SC | |
| Total Drainage Area (sf) | 82,192 | 172,062 | |
| On-Site Drainage Area (sf) | 82,192 | 172,062 | |
| Off-Site Drainage Area (sf) | 0 | 0 | |
| Buildings/Lots (sf) | 0 | 1,887 | |
| Impervious Pavement (sf) | 0 | 0 | |
| Pervious Pavement (total / adjusted) (sf) | / | / | / |
| Impervious Sidewalks (sf) | 0 | 1516 | |
| Pervious Sidewalks (total / adjusted) (sf) | / | / | / |
| Other (sf) | 0 | 0 | |
| Future Development (sf) | 0 | 2,255 | |
| Existing Impervious to remain (sf) | 36,063 | 25,614 | |
| Offsite (sf) | 0 | 0 | |
| Total Impervious Area (sf) | 36,063 | 29,017 | |
| Percent Impervious Area (%) | 43.9 | 16.2 | |

| 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) | | | |
| Total Impervious Area (sf) | | | |
| Percent Impervious Area (%) | | | |

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.

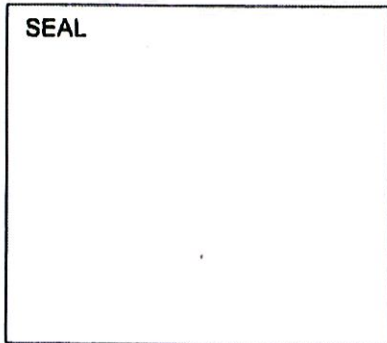
- | | Initials |
|--|----------------|
| 1. One completed Stormwater Management Permit Application Form. | <u>PMC</u> |
| 2. One completed Supplement Form for each SCM proposed (signed, sealed and dated). | <u>PMC</u> |
| 3. One completed Operation & Maintenance agreement for each <u>type</u> of SCM. | <u>on file</u> |
| 4. Proposed Deed Restrictions and Restrictive Covenants (for all subdivisions) | <u>N/A</u> |
| 5. Appropriate stormwater permit review fee. | <u>PMC</u> |
| 6. Minimum requirements identified on the Engineering Plan Review Checklist have been addressed. | <u>PMC</u> |
| 7. One set of calculations (sealed, signed and dated). | <u>PMC</u> |
| 8. A detailed narrative (one to two pages) describing the stormwater treatment/management system for the project. | <u>PMC</u> |
| 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. | <u>PMC</u> |
| 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. | <u>PMC</u> |
| 11. One full set of plans <u>folded to 8.5" x 14"</u> . | <u>PMC</u> |
| 12. A map delineating and labeling the drainage area for each SCM proposed. | <u>PMC</u> |
| 13. A map delineating and labeling the drainage area for each inlet and conveyance proposed. | <u>PMC</u> |
| 14. A digital copy of the entire submittal package (can be submitted via flash drive, CD, email, dropbox or other file sharing system). | <u>PMC</u> |

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: _____



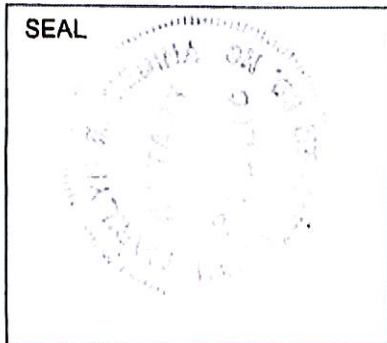
I, _____, a Notary Public for the State of _____, County of _____, do hereby certify that _____ personally appeared before me this day of _____, _____, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

My commission expires: _____

VII. APPLICANT'S CERTIFICATION

I, Barbara Tyndall 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: Barbara Tyndall Date: 5/12/2021



I, MARILYN E. MEDINA, a Notary Public for the State of NORTH CAROLINA, County of NEW HANOVER, do hereby certify that BARBARA TYNDALL personally appeared before me this day of 5/12, 2021, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

MARILYN E. MEDINA
My commission expires: July 15, 2025



STORMWATER MANAGEMENT PERMIT APPLICATION FORM
 401 CERTIFICATION APPLICATION FORM
INFILTRATION BASIN SUPPLEMENT



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

| I. PROJECT INFORMATION | |
|------------------------|------------------------|
| Project Name | Greenlawn Funeral Home |
| Contact Person | Richard M. Collier, PE |
| Phone Number | 910-343-1048 |
| Date | 5/12/2021 |
| Drainage Area Number | SCM 1 |

II. DESIGN INFORMATION

| | | |
|--|-----------|----------------------|
| Site Characteristics | | |
| Drainage area | 82,192.00 | ft ² |
| Impervious area | 36,063.00 | ft ² |
| Percent impervious | 43.88 | % |
| Design rainfall depth | 1.50 | in |
| Peak Flow Calculations | | |
| 1-yr, 24-hr rainfall depth | 3.70 | in |
| 1-yr, 24-hr intensity | 0.16 | in/hr |
| Pre-development 1-yr, 24-hr discharge | 0.01 | ft ³ /sec |
| Post-development 1-yr, 24-hr discharge | 1.56 | ft ³ /sec |
| Pre/Post 1-yr, 24-hr peak flow control | 1.55 | ft ³ /sec |
| Storage Volume: Non-SA Waters | | |
| Minimum design volume required | 4,571.00 | ft ³ |
| Design volume provided | 7,838.00 | ft ³ |
| | | OK for non-SA waters |
| Storage Volume: SA Waters | | |
| 1.5" runoff volume | | ft ³ |
| Pre-development 1-yr, 24-hr runoff volume | | ft ³ |
| Post-development 1-yr, 24-hr runoff volume | | ft ³ |
| Minimum required volume | | ft ³ |
| Volume provided | | ft ³ |
| Soils Report Summary | | |
| Soil type | Baymeade | |
| Infiltration rate | 62.10 | in/hr |
| SHWT elevation | 45.13 | fmsl |
| Basin Design Parameters | | |
| Drawdown time | 0.05 | days |
| Basin side slopes | 3.00 | :1 |
| Basin bottom elevation | 47.15 | fmsl |
| Storage elevation | 49.60 | fmsl |
| Storage Surface Area | 4,267.00 | ft ² |
| Top elevation | 50.00 | fmsl |
| Basin Bottom Dimensions | | |
| Basin length | 93.50 | ft |
| Basin width | 23.50 | ft |
| Bottom Surface Area | 2,206.00 | ft ² |

City

Additional Information

| | | | |
|--|-----------------------|----------|----------------------------------|
| Maximum runoff to each inlet to the basin? | - | ac-in | Maximum of 2 acre-inches allowed |
| Length of vegetative filter for overflow | - | ft | OK |
| Distance to structure | 50.00 | ft | OK |
| Distance from surface waters | - | ft | OK |
| Distance from water supply well(s) | - | ft | OK |
| Separation from impervious soil layer | - | ft | OK |
| Naturally occurring soil above shwt | 2.02 | ft | OK |
| Bottom covered with 4-in of clean sand? | Y | (Y or N) | OK |
| Proposed drainage easement provided? | Y | (Y or N) | OK |
| Captures all runoff at ultimate build-out? | Y | (Y or N) | OK |
| Bypass provided for larger storms? | Y | (Y or N) | OK |
| Pretreatment device provided | : sump in catch basin | | |



STORMWATER MANAGEMENT PERMIT APPLICATION FORM
 401 CERTIFICATION APPLICATION FORM
INFILTRATION BASIN SUPPLEMENT

This form must be filled out, printed and submitted.

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

I. PROJECT INFORMATION

| | |
|----------------------|------------------------|
| Project Name | Greenlawn Funeral Home |
| Contact Person | Richard M. Collier, PE |
| Phone Number | 910-343-1048 |
| Date | 5/12/2021 |
| Drainage Area Number | SCM 2 |

II. DESIGN INFORMATION

Site Characteristics

| | | |
|-----------------------|------------|-----------------|
| Drainage area | 172,062.00 | ft ² |
| Impervious area | 29,017.00 | ft ² |
| Percent impervious | 16.86 | % |
| Design rainfall depth | 1.50 | in |

Peak Flow Calculations

| | | |
|--|------|----------------------|
| 1-yr, 24-hr rainfall depth | 3.70 | in |
| 1-yr, 24-hr intensity | 0.16 | in/hr |
| Pre-development 1-yr, 24-hr discharge | 0.01 | ft ³ /sec |
| Post-development 1-yr, 24-hr discharge | 0.12 | ft ³ /sec |
| Pre/Post 1-yr, 24-hr peak flow control | 0.11 | ft ³ /sec |

Storage Volume: Non-SA Waters

| | | | |
|--------------------------------|----------|-----------------|----------------------|
| Minimum design volume required | 3,931.00 | ft ³ | |
| Design volume provided | 7,268.00 | ft ³ | OK for non-SA waters |

Storage Volume: SA Waters

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

Soils Report Summary

| | |
|-------------------|-------------------|
| Soil type | Baymeade, Wakulla |
| Infiltration rate | 66.40 in/hr |
| SHWT elevation | 43.60 fmsl |

Basin Design Parameters

| | | | |
|------------------------|----------|-----------------|----|
| Drawdown time | 0.20 | days | OK |
| Basin side slopes | 3.00 | :1 | OK |
| Basin bottom elevation | 45.60 | fmsl | OK |
| Storage elevation | 49.50 | fmsl | |
| Storage Surface Area | 3,324.00 | ft ² | |
| Top elevation | 50.00 | fmsl | |

Basin Bottom Dimensions

| | | |
|---------------------|--------|-----------------|
| Basin length | 96.50 | ft |
| Basin width | 5.60 | ft |
| Bottom Surface Area | 538.00 | ft ² |

City

Additional Information

| | | | |
|--|--------|---------------------|----------------------------------|
| Maximum runoff to each inlet to the basin? | - | ac-in | Maximum of 2 acre-inches allowed |
| Length of vegetative filter for overflow | - | ft | OK |
| Distance to structure | 100.00 | ft | OK |
| Distance from surface waters | - | ft | OK |
| Distance from water supply well(s) | - | ft | OK |
| Separation from impervious soil layer | - | ft | OK |
| Naturally occurring soil above shwt | 2.00 | ft | OK |
| Bottom covered with 4-in of clean sand? | Y | (Y or N) | OK |
| Proposed drainage easement provided? | Y | (Y or N) | OK |
| Captures all runoff at ultimate build-out? | Y | (Y or N) | OK |
| Bypass provided for larger storms? | Y | (Y or N) | OK |
| Pretreatment device provided | | sump in catch basin | |