Permit: 414675

PIN: 0060000057E0000

ALBEMARLE REGIONAL HEALTH SERVICES
Parmers in Public Health

Currituck

RÉPAIR

Owner:

Evolve Design & Build

261 Maple Rd

Maple, NC 27956

Applicant:

Evolve Design & Build,

261 Maple Rd

Maple, NC 27956

LTAR: 0.500

Water: PUBLIC

TYPE II A.

SINGLE FAMILY

GPD: 350

Location:

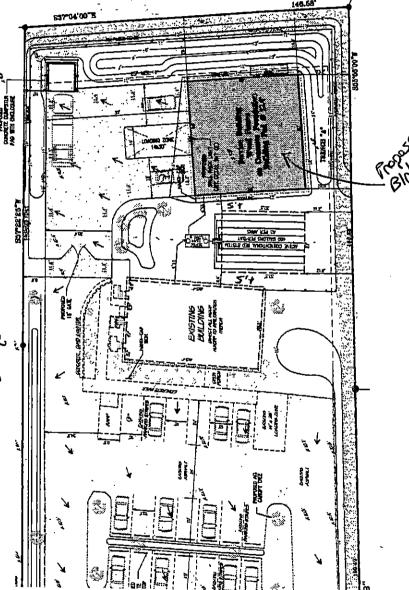
3949 Caratoke Hwy

-Pump, crush, & Fill in existing tounk

-Add new 1000 gallon septic tank 9 lines 39' long 3' on-center (27' X 39' Bed System)

- set tounk high so top of lines one o-18 inches below existing grade surface;

- Keep system 50't to amy Well



- Caratoke Hwy -

Authorized Agent:

Carver, Kevin

Date: 06/21/2024

Approved:

Date: ______

THE AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION (CONSTRUCTION AUTHORIZATION) SHALL BE VALID FOR A PERIOD OF 60 MONTHS AFTER THE DATE OF ISSUANCE.

The issuance of the Improvement Permit or Construction Authorization in no way guarantees the issuance of other local, state or federal permits.

Wastewater systems and water supplies shall meet state and/or local regulations.

NO CHANGES IN THIS DOCUMENT ARE ALLOWED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE HEALTH DEPARTMENT. IF THE INFORMATION SUBMITTED IN THE APPLICATION FOR THE IMPROVEMENT PERMIT OR CONSTRUCTION AUTHORIZATION IS FOUND TO BE INCORRECT, CHANGED, OR IF THE SITE IS ALTERED, THE IMPROVEMENT PERMIT OR CONSTRUCTION AUTHORIZATION SHALL BECOME INVALID AND MAY BE SUSPENDED OR REVOKED.

When contacting the Environmental Health office concerning this document, be sure to know the application number. The number must be used in all inquiries and inspection requests.

The Environmental Health Staff can be located at the following telephone numbers between 8:00 a.m. and 8:30 a.m., Monday through Friday, except holidays. The office telephone numbers are:

Camden(252) 338-4460	Pasquotank(252) 338-4490
Chowan(252) 482-1199	Perquimans(252) 426-2100
Currituck(252) 232-6603	Bertie(252) 794-5303
and and program and desire out the same time to the same time time to the same time time time time time time time ti	Gates(252) 357-1380

Wastewater system installers are responsible for notifying the Environmental Health offices for final inspections. Wastewater systems must be inspected and approved by a representative of the Environmental Health staff before any portion of the installation is covered and/or used.

ISSUANCE OF AN OPERATIONS PERMIT SHALL INDICATE THE WASTEWATER SYSTEM HAS BEEN CONSTRUCTED TO THE STANDARDS SET FORTH IN THE REGULATIONS, BUT SHALL IN NO WAY BE TAKEN AS A GUARANTEE THAT THE SYSTEM WILL FUNCTION SATISFACTORILY FOR ANY GIVEN PERIOD OF TIME.

Wastewater systems shall be operated and maintained in such a manner as to not create a public health hazard. Septic tanks should be pumped out every 3 to 5 years by a permitted pumper. Please conserve water!

Minimum Distances*

Ground A	bsorption	Wastewater	S	ystems	to:
----------	-----------	------------	---	--------	-----

1.	Private water supply sources	100'
2.	Public water supply sources	100'
3.	Coastal waters (mean high water mark)	50'
4.	Streams, canals, marshes, or	
	other surface waters	50'
5.	Lakes and ponds	50 °
6.	Groundwater lowering ditches and	
	devices	25'
7.	Embankments or cuts	15'
8.	Swimming pools	15'
9.	Property Lines	10'
10.	Water lines	10'
11.	Building foundations	5°

Private Wells to:

1.	Wastewater systems	100'
2.	Building foundations	25'
3.	Surface waters	50'
4.	Property lines	10'

^{*}Variances can be given on some distances; please call the Environmental Health office if you feel a variance is necessary.

Septic tanks, nitrification fields, and repair areas shall not be located under paved areas or areas subject to vehicular traffic.



Major Stormwater Plan Form SW-002

Review Process

Contact Information

Website:

Currituck County

Planning and Community Development 153 Courthouse Road, Suite 110

Currituck, NC 27929

Phone: 252.232.3055

Fax: 252.232.3026

Phone: 252.232.6035

http://www.co.currituck.nc.us/planning-community-development.cfm

Currituck County **Engineering Department** 153 Courthouse Road, Suite 302

Currituck, NC 27929

General

Major stormwater plan approval is required for:

Major subdivisions.

o Major site plans - development or expansion on a nonresidential, multi-family, or mixed use lot by 5,000 square feet or more of impervious coverage or resulting in 10% or more total impervious

Step 1: Application Submittal

The applicant must submit a complete application packet consisting of the following:

- O Completed Currituck County Minor Stormwater Plan Form SW-002 (unless submitting a major subdivision or major site plan).
- Completed Rational Method Form SW-003 or NRCS Method Form SW-004.
- O Stormwater management plan drawn to scale. The plan shall include the items listed in the major stormwater plan design standards checklist.
- O Alternative stormwater runoff storage analysis and/or downstream drainage capacity analysis, if applicable.
- O NCDENR permit applications, if applicable.
- Number of Copies Submitted:
 - 3 Copies of required plans
 - 3 Hard copies of ALL documents
 - 1 PDF digital copy (ex. Compact Disk e-mail not acceptable) of all plans AND documents.

On receiving an application, staff shall determine whether the application is complete or incomplete. A complete application contains all the information and materials listed above, and is in sufficient detail to evaluate and determine whether it complies with appropriate review standards. An application for major stormwater plan must be submitted and approved prior altering an existing drainage system, performing any land disturbing activity or, before construction documents are approved.

Step 2: Staff Review and Action

Once an application is determined complete staff shall approve, approve subject to conditions or disapprove the application.



Property Owner(s)/Applicant

Major Stormwater Plan Form SW-002

OFFICIAL USE ONLY:	
Permit Number:	
Date Filed:	
Date Approved:	

Contact Informa	ition			
APPLICANT: Name: Address:	Kwasny Engine 198 Augusta Dr Grandy, NC 279	ive	PROPERTY OW Name: Address:	NER: Jordan Daneker 3949 Caratoke Hwy Barco, NC 27912
Telephone: E-Mail Address: Property Information	757-705-0585 Dneff@Kwasny	eng.com	Telephone: E-Mail Address:	252-202-9008 Jordan@Evolvedesignbuildllc
Physical Street A	Address: 3949 Ca	ratoke Hwy 060000057E0000		
Total land distur	bance activity: <u>60</u> verage: <u>61,456</u> ST	5 sf	Calculated volun	ne of BMPs: 22,875 sf verage: 34,552 sf
	ethod (TR-55 and Tolume calculation for the stormwater runo eam drainage caped ze county officials	-hour rate) K DISCHARGE R-20) or small sites (less that storage analysis acity analysis	rty for purposes	of determining compliance. All ablic record.

Date

				Salah Sa		
Major	Stormwater	Plai	Design	Stand	ards Charlet	:_+

The table below depicts the design standards of the major stormwater plan application. Please make sure to include all applicable listed items to ensure all appropriate standards are reviewed.

Major Stormwater Plan

Design Standards Checklist

Date Received:			
Project Name: Evolve Design	- Build LLC		
Applicant/Property Owner: Jorda	an Daneker		

IAII	nor Stormwater Plan Design S	andards Checklist	
4		General	
1	Property owner name and a	ddress.	V
2	Site address and parcel ider	tification number.	1
3	North arrow and scale to be	1" = 100' or larger.	i
		Site Features	
4	Property lines with dimensi	ting and proposed site features: ons, acreage, streets, easements, structures (dimensions and ulkheads, septic area (active and repair), utilities, vehicular use	1
5	Approximate location of all other such areas which are e Forest, CAMA, 404, or 401 v	designated Areas of Environmental Concern (AEC) or a nvironmentally sensitive on the property, such as Maritime retlands as defined by the appropriate agency.	1
6	changes within the past six m	nd elevations shown in one foot intervals. All elevation onths shall be shown on the plan.	V
8	Limits of all proposed fill, incl	uding the toe of fill slope and purpose of fill.	1
9	Square footage of all existing walkways, vehicular use area of surface materials.	g and proposed impervious areas (structures, sidewalks, s regardless of surface material), including a description	~
10	Existing and proposed drainc	ge patterns, including direction of flow.	1
11	Location, capacity, design discharge of existing and pro	plans (detention, retention, infiltration), and design posed stormwater management features.	V
12	Elevation of the seasonal high	water level as determined by a licensed soil scientist.	V
13	Plant selection.		1/
		Permits and Other Documentation	
14	NCDENR stormwater permit a	pplication (if 10,000sf or more of built upon area).	TV
15	NCDENR erosion and sedimen disturbance).	tation control permit application (if one acre or more of land	1
16	NCDENR coastal area manag	ement act permit application, if applicable.	NIA
7	Stormwater management narr	ative with supporting calculations.	MIN
8	Rational Method Form SW-00	3 or NRCS Method Form SW-004	MA
9	Alternative stormwater runoff analysis, if applicable	storage analysis and/or downstream drainage capacity	V
20	Design spreadsheets for all BA	APs (Appendix F – Currituck County Stormwater Manual).	
21	Detailed maintenance plan fo	all proposed RMPs	10/

Major Stormwater Plan SW-002 Page 4 of 4

This Document eRecorded: 03/06/2024 04:52:56 PM Fee: \$26.00 Tax: \$1,180.00 Currituck County, North Carolina Denise A. Hall, Register of Deeds Currituck Countx Dand Transfer Tax: 5900.00 County Excise Tax: 1985 Sessions Law Chapter 670 (HB 215) Excise Tax: Recording Time, Book and Page: Parcel No: 0060-000-057**D** 20000 & 0060-000-057E Mail after recording to: Brumsey & Brumsey, PLLC, P.O. Box 100, Currituck, NC 27929 William Brumsey, III/mnm file no. 23B61392 This instrument was prepared by: **Crawford Township** Brief Description for Index: NORTH CAROTINA GENERAL WARRANTY DEED day of This DEED, made this by and between 23rd. February 2024 **GRANTOR** GRANTEE Ò) PATRICIA BERRY, widow **EVOLVE DESIGN + BUILD, LLC, A North Carolina** Limited Liability Company 3949 Caratoke Hwy. 1143 Waterlily Rd. Barco, NC 27917 Coinjock, NC 27923 Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.q. corporation or partnership. The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context. WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantoe, the receipt of all of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the said Grantees in fee simple, all that certain lot or parcel of land situated in Crawford Township, Currituck County, North Carolina, more particularly described as follows: Lots 4 and 5 shown on a plat prepared by Sadler Surveying, PLLC entitled "Surveyed for Evolve Design & Build, LLC, Lot 4 & 5 Barco Commercial Lots" recorded in Plat Cabinet S, Slide 95, in the office of the Register of Deeds of Currituck County. There is excepted from this conveyance any part of the above described parcels conveyed to the North Carolina Department of Transportation by Deed recorded in Deed Book 582, Page 93 and Deed Book 582, Page 95.

DOC# 387792

BK 1762 PG 821 - 822 (2)

Submitted electronically by "Brumsey and Brumsey PLLC" in compliance with North Carolina statutes governing recordable documents and the terms of the submitter agreement with the Currituck County Register of Deeds.

All or a portion of the property herein conveyed ____ includes or _X does not include the primary residence of a Grantor.

the closing attorney to the County tax collector upon disbursement of closing proceeds.

This instrument prepared by: William Brumsey, III, a licensed North Carolina attorney. Delinquent taxes, if any, to be paid by

And Deed Book 397, Page 38.	ed was acquired by Grantor	by instrument recorded	ın Book 408	Page 887	
A map showing the above describ	ed property is recorded in P	lat Book S	Page 95.		
TO HAVE AND TO HOLD the simple.	ne aforesaid lot or parcel of l	and and all privileges an	nd appurtenances thereto	belonging to Grant	ees in
And the Grantor covenants with fee simple, that title is marketable lawful claims of all persons whom	e and free and clear of all end	cumbrances, and that G	rantor will warrant and c	~	
Title to the property hereinabove	described is subject to the fo	ollowing exceptions:			
Reservations, restrictions and ea					
This conveyance is made subject to subdivision, development, con	ct to any laws, rules, regulants instruction on or use of the	tions or ordinances, w property conveyed.	hether local, County, S	State or Federal, rel	lating
IN WITNESS WHEREOF, the Granname by its duly authorized officers a				•	-
(Corporate	e Names	PATRICIA	BERRY	(SE	CAL)
Ву	President			(SE	CAL)
ATTEST:					T .
	<u>```</u>				CAL)
**************************************	Secretary (Corporate Seal)	. .	<u></u>	(SE	EAL)
STATE OF NORTH CAROLI		ITUCK)			
I, Mandino.	I landed		a Notary Publi	ic do hereby certify	
that PATRICIA BERRY appeared before me this day and	acknowledged the due execu	ution of the foregoing in	strument for the purpose	persones therein expressed.	_
Witness my hand and official	stamp or seal this	$\frac{38}{\text{day of }}$	2 024.		
		\			
MANOR H. MANOR			14. (1)	(S	SEAL)
AFFIX SEMA A	Notar	Voblic			
ES AUBLIC SI		\			
My commission expires:	w. 19, 2027		· C		
THE THE PROPERTY OF THE PARTY O			, M		



KITTY HAWK 3841 N CROATAN HWY KITTY HAWK NG 27949-9238

90	17 14 OLIOVIUM LIIII	
KITTY	HAWK, NC 27949-92	238
	(800) 275-8777	
07/24/2024		0

07/24/2024		,,,,	02:48 PM
Product	Qty	Unit Price	Price
Priority Mail® Washington, NC Weight: 1 lb 0 Expected Delive Fri 07/26/2 Tracking #:	.20 oz ery Date)	\$11.00
9505 5117 5 Insurance			08 \$0.00
Up to \$100.	.00 incl	uded	\$11.00
Priority Mail® Washington, NC Weight: 1 lb 5. Expected Delive Fri 07/26/2 Tracking #: 9505 5117 5	27889 .50 oz ery Date 2024		\$11.00
Insurance Up to \$100.			\$0.00
Total	.00 Inci	uded	\$11.00
Grand Total:			\$22.00
Debit Card Remit			\$22.00

Receipt #: 024749 Debit Card Purchase: \$22.00 AID: A000000C042203 AL: Debit PIN: Verifiec	Chip
Text your tracking number to 28 to get the latest status. Stand and Data rates may apply. You visit www.usps.com USPS Trackin 1-800-222-1811.	ard Message may also

Can'd Name: MasterCard
Account #: XXXXXXXXXXXXXXXX2723
Approval #: C34835
Transaction #: 064748

Save this receipt as evidence of insurance. For information on filing an insurance claim go to https://www.usps.com/help/claims.htm or call 1-800-222-1811

Preview your Mail Track your Packages Sigr up for FREE @ https://infcrmeddelivery.usps.com

All sales final on stamps and postage. Refunds for guaranteed services only. Thank you for your business.

Tell us about your experience. Go to: https://postalexperience.com/Pos or scan this coce with your mobile device,





UFN: 364144-0449



ANDMARK ENGINEERING & ENVIRONMENTAL, P.C.

P.O. Box 1190 KITTY HAWK, NC 27949

252-715-3497

July 24, 2024

Richard Peed NCDE&NR Division of Land Resources 943 Washington Square Mall Washington, NC 27889

Evolve Design + Build 3949 Caratoke Highway, Barco, Currituck County, NC Sedimentation and Erosion Control Plan Application Package

Dear Mr. Peed:

On Behalf of Evolve Design + Build, LLC, Landmark Engineering & Environmental, P.C. Submits for your review and approval, a Sedimentation and Erosion Control package containing the following:

- Check payable to NCDE&NR in the amount of \$200.00. 1.)
- Three sets of Plan sheets and details (Sheets C1-C4). 2.)
- Two copies of two NRCS online maps for Soils at the site. 3.)
- Two copies of the deed for the Property. 4.)
- One Original and one copy of the Financial Responsibility Form. 5.)
- Two copies of the project narrative 6.)

Thank you for your time, attention and help with this project. If you have any questions or require any additional information, please contact me at (252) 202-6460, or at victor@landmarkeng.net.

Respectfully submitted, Landmark Engineering & Environmental, P.C.

Victor White, P.E.

EVOLVE DESIGN + BUILD, LLC 261 MAPLE RD MAPLE, NC 27956

two hundred dollars PAYTOTHE NCOENK

Per Soil Gosion + Sedimentation FIRST BANK FIRST BANK localfirst bank com

DATE 7 24

1633

66-456/531

3 500 % T

DOLLARS Petalis on back

AUTHORIZED SIGNATURE

"OO1633" "O53104568" 8060017673"







MAP LEGEND

Stony Spot Spoil Area W Area of Interest (AOI) Soil Map Unit Poin Soil Map Unit Poly Soil Map Unit Line Special Point Features Area of Interest (AOI) Soils

otoliy opot	Very Stony Spot	Wet Spot	Other	Special Line Feat
0	8	ĝ.	Q	ţ
	Ydons	s se	nts	







contrasting soils that could have been shown at a more detailed

scale.

Please rely on the bar scale on each map sheet for map

measurements.

misunderstanding of the detail of mapping and accuracy of soil Enlargement of maps beyond the scale of mapping can cause

Warning: Soil Map may not be valid at this scale.

line placement. The maps do not show the small areas of

The soil surveys that comprise your AOI were mapped at

1:20,000

MAP INFORMATION





Borrow Pit

Blowout

9

Clay Spot



Gravelly Spot

Landfill

Gravel Pit

Closed Depression



Miscellaneous Water

Perennial Water

Rock Outcrop

Marsh or swamp

Lava Flow

Mine or Quarry

Aerial Photography

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator distance and area. A projection that preserves area, such as the projection, which preserves direction and shape but distorts Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Currituck County, North Carolina Survey Area Data: Version 23, Sep 13, 2023 Soil Survey Area:

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: May 18, 2022—May

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Sandy Spot

Saline Spot

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
StA	State fine sandy loam, 0 to 2 percent slopes	7.8	99.1%
То	Tomotley fine sandy loam	0.1	0.9%
Totals for Area of Interest		7.9	100.0%

BK 1762 PG 821 - 822 (2)

This Document eRecorded:

Tax: \$1,180.00

DOC# 387792

03/06/2024 04:52:56 PM

Fee: \$26.00

Currituck County, North Carolina Denise A. Hall, Register of Deeds

All or a portion of the property herein conveyed _

Currituck County Dand Transfer Tax: 5900.00 County Excise Tax: 1985 Sessions Law Chapter 670 (HB 215) Excise Tax: Recording Time, Book and Page: Parcel No: 0060-000-057E-0000 & 0060-000-057E Mail after recording to: Brumsey & Brumsey, PLLC, P.O. Box 100, Currituck, NC 27929 This instrument was prepared by: William Brumsey, III/mnm file no. 23B61392 Brief Description for Index: Crawford Township NORTH CAROLINA GENERAL WARRANTY DEED This DEED, made this 23rd. day of February 2024 GRANTOR GRANTEE PATRICIA BERRY, widow EVOLVE DESIGN + BUILD, LLC, A North Carolina Limited Liability Company 1143 Waterlily Rd. 3949 Caratoke Hwy. Coinjock, NC 27923 Barco, NC 27917 Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.q. corporation or partnership. The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context. WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantoe, the receipt of all of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the said Grantoes in fee simple, all that certain lot or parcel of land situated in Crawford Township, Currituck County, North Carolina, more particularly described as follows: Lots 4 and 5 shown on a plat prepared by Sadler Surveying, PLLC entitled "Surveyed for Evolve Design & Build, LLC, Lot 4 & 5 Barco Commercial Lots" recorded in Plat Cabinet S, Slide 95, in the office of the Register of Deeds of Currituck County. There is excepted from this conveyance any part of the above described parcels conveyed to the North Carolina Department of Transportation by Deed recorded in Deed Book 582, Page 93 and Deed Book 582, Page 95.

Submitted electronically by "Brumsey and Brumsey PLLC" in compliance with North Carolina statutes governing recordable documents and the terms of the submitter agreement with the Currituck County Register of Deeds.

This instrument prepared by: William Brumsey, III, a licensed North Carolina attorney. Delinquent axes, if any, to be paid by

the closing attorney to the County tax collector upon disbursement of closing proceeds.

_ includes or _X_does not include the primary residence of a Grantor.

The property hereinabove described was acquired by Grantor by in And Deed Book 397, Page 38.	strument recorded i	n Book	408	Page	887
A map showing the above described property is recorded in Plat Be	ook S	Page	95.		
TO HAVE AND TO HOLD the aforesaid lot or parcel of land a fee simple.	and all privileges and	d appurtenanc	ces thereto	belonging	to Grantees in
And the Grantor covenants with the Grantee, that Grantor is seize fee simple, that attle is marketable and free and clear of all encumb lawful claims of all persons whomsoever except for the exceptions	rances, and that Gra hereinafter stated.	n fee simple, l antor will war	has the right rant and de	ht to conve efend the ti	ey the same in the against the
Title to the property hereinabove described is subject to the following	ng exceptions:				
Reservations, restrictions and easements of record. This conveyance is made subject to any laws, rules, regulations to subdivision, development, construction on or use of the proper	or ordinances, wh	ether local, (County, St	ate or Fed	leral, relating
24	ang comregeus				
IN WITNESS WHEREOF, the Grantor has hereunto set his hand and se name by its duly authorized officers and its seal to be hereunto affixed by a	al, or if corporate, ha	s caused this in	nstrument to day and ye	be signed ar first abov	in its corporate ve written.
(Corporate Name)	PATRICIA BI	PID		/	(SEAL)
By President	- ATRICIA DI		_/_	·	(SEAL)
ATTEST:					(SEAL)
Secretary (Corporate Seal)					(SEAL)
that PATRICIA BERRY appeared before me this day and acknowledged the due execution Witness my hand and official stamp or seal this 28		rument for the		do hereby o	
AFFIX CEIVAR L. F. Notals Public Notals Publ	_	Landing Do	<u> </u>		(SEAL)
		1			

Check if this project is ARPA-funded	
Attach a copy of the Letter of Intent to Fund	-

FINANCIAL RESPONSIBILITY/OWNERSHIP FORM SEDIMENTATION POLLUTION CONTROL ACT

No person may initiate any land-disturbing activity on one or more acres as covered by the Act, including any activity under a common plan of development of this size as covered by the NCG01 permit, before this form and an acceptable erosion and sedimentation control plan have been completed and approved by the Land Quality Section, N.C. Department of Environmental Quality. Submit the completed form to the appropriate Regional Office. (Please type or print and, if the question is not applicable or the e-mail address or phone number is unavailable, place N/A in the blank.)

Pa	art A.	acc runt in the blank.)			address of priorie
1	. Project Name	EVOLVE	DESIGN	+	BUILD
	*If this project Number (e.g Division of W	t involves American D-	-		list the Project Name or Project pproved for funding through the
2.	Location of land-dist	urbing activity: County_	CURRITUCK	City or	Township_BARCO
	nignway/Street_5	TI CARATORE Lati	tude(decimal degrees) 3	6:3872L	ongitude/decimal down 75.92(1
3.	Approximate date la	nd-disturbing activity will	commence:S	EPTE	MBER 2024
4.	Purpose of developm	ent (residential, commer	rcial industrial inst	itutional	etc.): COMMERCIAL
5.	Total acreage disturb	ed or uncovered (includi	ng off site b	nutional,	etc.): COMMERCIAL
6.	Amount of fee encla	and the			e areas):, 4 of \$100.00 per acre (rounded)-acre application fee is \$900).
7. 8.	Has an erosion and s	ediment control plan bee	n filed? Yes E	nclosed	X No □
0.	Name_ Victor	uld erosion and sedimen	t control issues aris	se during	land-disturbing activity:
	Phone: Office # _ &	52-715-3497	Mobile #	222	202-CULA
9.	Landowner(s) of Reco	rd (attach accompanied i	page to list addition	nal owner	s):
	Name	, aside	252 455 - Phone: Office #	6410	252 202-9008
	3949 CARAT	OKE AIGHWAY	r none. Office #		Mobile #
1	Current Mailing Addres	s	Current Street Ad	dress	
ŧ		NC 27917			
	City Peod Book N. 408	State Zip	City 387-	St	ate Zip
	Deed Book No. 176	Page No		∕ide a cop	by of the most current deed.

Part B.

 Company(ies of all respons an individual(s) 	, the name(s) of the o			Unity (PSDODSINIA partylina)	
		107 10 100			
Company Na	E DESIGN +	BUILD		SS	
2040	CASA		E-mail Addres	SS	
3117	CARATOKE	HIGHW	YAI		
our one want	ing Address		Current Street	t Address	
ISARCO	Nと State	279	7		
City	State	Zip	City	State	7:-
Phone: Office	e#				Zip
00 Parkaga (100 - 100 -			IVIODIIE #		
business regis	cially Responsible P stry, give name and	arty is a do street addre	mestic company req ess of the Registere	gistered on the NC Secreta d Agent:	ry of State
Name of Regist	ered Agent	-	E-mail Address		
	9-11-		C-IIIAII ADDITACE		
			- mail Address	•	
Current Mailing	Address				
Current Mailing	Address		Current Street		
		7:-	Current Street		
Current Mailing	Address	Zip			Zip
City	State		Current Street	Address	
City			Current Street	Address	
City Phone: Office#	State		City Mobile #	Address	
City Phone: Office#	State		City Mobile #	Address	
City Phone: Office # Name of Individu	State State	gistered Ag	City Mobile #ent is a company)	Address State	
City Phone: Office # Name of Individu (b) If the Finance	State State July Responsible Designation	gistered Ag	City Mobile #ent is a company)	Address State	
City Phone: Office # Name of Individu (b) If the Finance	State State July Responsible Designation	gistered Ag	City Mobile #ent is a company)	Address State	
City Phone: Office # Name of Individu	State State July Responsible Designation	gistered Ag	City Mobile #ent is a company)	Address State	
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	ing in business under an assumed name, give name under he Financially Responsible Party is an individual, General and doing business under an assumed name, attach a copy
Company DBA Name	
or his attorney-in-fact, or if not an individual, by the authority to execute instruments for the is corrected information should there be any chan	e best of my knowledge and belief and was provided the Financially Responsible Person if an individual(s) an officer, director, partner, or registered agent with Financially Responsible Party). I agree to provide ge in the information provided herein.
Type or print name	MANAGING MEMBER Title or Authority
	7-24-24
Signature	Date
State of North Carolina hereby certify that Toy	Notary Public of the Gounty of Chesapeake appeared personally edged that the above form was executed by him/her.
Witness my hand and notarial seal, this 24th	lay of July , 20 24
CHRISTY NICHOLE FILIPAK NOTARY PUBLIC REG. #7662038 COMMONWEALTH OF VIRGINIA MY COMMISSION EXPIRES 09/30/2024	Motary Min Fre
	My commission expires 9 30/24



LANDMARK ENGINEERING & ENVIRONMENTAL, P.C.

P.O. Box 1190 KITTY HAWK, NC 27949 (252) 715-3497

Evolve Deign + Build

3949 Caratoke Highway, Barco, Currituck County

Stormwater Management Plan
Design Narrative
June 24, 2024

The above referenced project is additional development of an existing commercial business. The business is located on lots 4 and 5 of "Barco Commercial Lots" as recorded with the Currituck County Register of Deeds. The two lots are a total of 102,427 sq.ft. or 2.35 acres. Existing Development at the site is concentrated on Lot 5 with and existing commercial building and associated parking and other infrastructure. The proposed development of the project area consists of an additional "service" building at the rear of lot 5 with associated concrete drive and associated infrastructure. Lot 4 development will consist of a gravel parking area, and a grass storage area with associated infrastructure. Stormwater runoff from the project, both existing and proposed, will be managed by 2 drainage areas, Drainage Area "A" will manage runoff from the majority of the proposed development, with the exception being the roadside concrete walk on Lot 5. Drainage Area "A" also receives runoff from the existing entrance drive from Caratoke Highway. Drainage Area "B" receives Stormwater runoff from the remaining existing impervious surfaces on Lot 5 and the proposed roadside concrete sidewalk on Lot 5. Stormwater runoff generated by the project will be managed by infiltration/detention basins through sheet flow.

Design parameters for the Stormwater Management conservatively assume 95% of runoff from impervious asphalt, concrete, gravel surfaces and buildings will be conveyed to the proposed infiltration /detention basins. The design storms for the system are a 1.5 inch rain event, (State, infiltration), and the runoff difference between the 2 year, 24 hour storm, (pre-development), and 5 year, 24 hour storm, (post-development), (County, detention and infiltration). Due to the soils present and conditions at the site, pre-development runoff at the site is taken as 0, and the design volume of the basins will retain the runoff volume from impervious surfaces generated by the 5 year, 24 hour storm. This storm is listed as a 4.81 inch rain event, according to NOAA Point Precipitation Frequency Estimates for the area. The site is located at 3949 Caratoke Highway, Barco, Currituck County, North Carolina.

The proposed stormwater management plan consists of two drainage areas. For Drainage Area "A". The infiltration area consists of a perimeter swale/basin system as shown on the attached drawings. Proposed impervious coverages consist of the proposed building, (2,705 sq. ft.), proposed concrete, (5,324 sq.ft.), proposed gravel pavement, (6,350 sq. ft.), and existing asphalt, (4,587 sq. ft.). The infiltration system for Drainage Area "A" will provide direct storage of 7,286 cu. ft., equivalent to a 4.85 inch rain event. Storage below the basin and above the Seasonal High Water Table provides additional storage of 4,525 cu.ft. for total storage for a 7.86 inch rain event.

For Drainage Area "B". The infiltration area consists of a rectangular basin with a conveyance swale as shown on the attached drawings. Proposed impervious coverages consist of the existing building, (2,256 sq. ft.), proposed concrete walk, (1,005 sq.ft.), existing asphalt pavement, (11,480 sq. ft.), and existing concrete, (845 sq. ft.). The infiltration system for Drainage Area "A" will provide direct storage of 6,450 cu. ft., equivalent to a 5.22 inch rain event. Storage below the basin and above the Seasonal High Water Table provides additional storage of 2,984 cu.ft. for total storage for a 7.64 inch rain event.

Erosion control measures for the site consist of temporary silt fence and inlet protection as well as permanent stabilization of soils at the site. All slopes are 4H: 1V or flatter, with the majority of slopes being 5H or 6H to 1V slope.



ANDMARK ENGINEERING & ENVIRONMENTAL, P.C.

P.O. Box 1190 KITTY HAWK, NC 27949 252-715-3497

July 24, 2024

Mr. Bill Moore NCDE&NR Division of Land Resources 943 Washington Square Mall Washington, NC 27889

Evolve Design + Build 3949 Caratoke Highway, Barco, Currituck County, NC Stormwater Management Plan Application Package

Dear Mr. Moore:

On Behalf of Evolve Design + Build, Landmark Engineering & Environmental, P.C. Submits for your review and approval, a Stormwater Management Plan Permit Application Package containing the following:

- A check payable to NCDE&NR in the amount of \$1,000.00. 1.) 2.)
- An original and one copy of the Stormwater Management Plan Application Form. 3.)
- An original and one copy of Infiltration Basin Supplements for Drainage Areas A & B. 4.)
- Two copies of Stormwater Calculations and Narrative.
- Three sets of Plan sheets and details (Sheets C1-C4). 5.)
- Two copies of Soils information for Soils at the site. 6.) 7.)
- an original and one copy of the Infiltration basin O&M agreement. 8.)
- Two copies each of a GIS map showing the project location.

Thank you for your time, attention and help with this project. If you have any questions or require any additional information, please contact me at (252) 202-6460, or at victor@landmarkeng.net.

Respectfully submitted, Landmark Engineering & Environmental, P.C.

Victor White, P.E.

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#11	AMHORIZED SIGNATURE		DOLLARS I Desire of best best best best best best best best	\$ 1,000. <u>20</u>	DATE 3 24 74 74	00 170 770

Date Received		DEMLR USE C	NLY	
	civea	Fee Paid		Permit Number
Applicable Rules: (select all that apply)	☐ Coastal SW = ☐ Non-Coastal S ☐ Other WQ Ma	1995 □ Coastal SW SW- HQW/ORW Waters gmt Plan:	7 - 2008 □ Unive	☐ Ph II - Post Construction ersal Stormwater Management Plan

State of North Carolina Department of Environment and Natural Resources Division of Energy, Mineral and Land Resources

GENERAL INFORMATION oct Name (subdivision, facility, or establishment name - should be consistent with project name on plans fications, letters, operation and maintenance agreements, etc.): oe Design + Build ion of Project (street address): Caratoke Highway Barco County: Currituck Zip:27917
Caratoke Highway County:Currituck
Caratoke Highway County: Currituck
Caratoke Highway County: Currituck
Barco County:Currituck
Zip:27917
tions to project (from nearest major intersection):
on East side of Caratoke Highway 250 Could be a second
on East side of Caratoke Highway, 350 feet North of the intersection of US Highway 158 and NC way 168 in Barco, Currituck County.
- Sured, Curring County.
whether project is (check one): New Modification Renewal w/ Modification† **Renewals with modifications also requires SWU-102 - Renewal Application Form **Application is being submitted as the result of a modification to an existing permit, list the existing number, its issue date (if known), and the status of a modification: Not Started Partially Completed* Completed* **provide a designer's certification to the type of project (check one): Density High Density Drains to an Offsite Stormwater System Other pplication is being submitted as the result of a previously returned application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application or a letter from Renewal w/ Modification **Provide a Management permit application **Provide a Management permit applicati
ned, and the previous name of the project, if different than currently
nal Project Requirements (check applicable blanks; information on required state permits can be by contacting the Customer Service Center at 1-877-623-6748): A Major Sedimentation/Erosion Control: 1.4 ac of Disturbed Area
ne na

III. CONTACT INFORMATION

a. Print Applicant / Signing Official's name and t designated government official, individual, etc.	itle (specifically the deve	loper, property owner, lessee	
Applicant/Organization: Evolve Design + Build			
Signing Official & Title Jordan Danakar, M.	L, LLC		
Signing Official & Title: <u>Jordan Daneker, Manag</u> b. Contact information for person listed in the	ing member		
a least for person listed in item la	above.		
Street Address: 3949 Caratoke Highway			
City:Barco	State:NC	Zip: <u>27917</u>	
Mailing Address (if applicable):City:			
Phone: (252) 455- 6416 Email: vordan@evolvedesianb	State:	Zip:	
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c. Please check the appropriate box. The applicant The property owner (Skip to Contact Informa Lessee* (Attach a copy of the lease agreement Purchaser* (Attach a copy of the pending sale 2b below) Developer* (Complete Contact Information, it	tion, item 3a) and complete Contact Ir s agreement and comple	formation, item 2a and 2b below te Contact Information, item 2a a	v) and
2. a. Print Property Owner's name and title below, if y person who owns the property that the project is		ser or developer. (This is the	
Property Owner/Organization: Signing Official & Title:			
Signing Official & Title:			
b. Contact information for person listed in item 2a al Street Address:	bove:		_
Mailing Address (if amlicable)	State:	Zip:	
Mailing Address (if applicable):			
City:	Ave. The state of		
Phone: () Email:	Fax: ()	
3. a. (Optional) Print the name and title of another cont person who can answer questions about the project Other Contact Person/Organization: Landmark Eng Signing Official & Title: Victor White, P.E., Stormwalt Contact to the Contact Person	z. & Env., P.C.	construction supervisor or other)
b. Contact information for person listed in item 3a abo	iter Design Engineer		_
Mailing Address: P.O. Box 1190	ove:		
			_
City: <u>Kitty Hawk</u> Phone: (252) 715-3497		Zip: <u>27949</u>	
Email:victor@landmarkeng.net	Fax: ()		_
Local jurisdiction for build:	_		
To building permits: Currituck Co	ounty		
Point of Contact: Bill Newns, Planning & Insp. Direct	tor	Phone #: (252) 232-602	3
		/ des - 002	

IV. PROJECT INFORMATION

2. a. If claiming vested rights, ident Approval of a Site Specific D Valid Building Permit Other:	•	I	speroval Date:	
b. If claiming vested rights, identi	ify the regulation(s) Ph II – Post Constru	the project has been		
3. Stormwater runoff from this pro		nous to 1		
l. Total Property Area: 2.35	, eet drams to the <u>ra</u>			
		6. Total St	oastal Wetlands A urface Water Area:	
. Total Property Area (4) - Total C Area+: 2.35acres	Coastal Wetlands Are	ea (5) – Total Surfac	ce Water Area (6)	= Total Project
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On-site Streets (sf) 0
On-site Parking (sf) 10,394
On-site Sidewalks (sf) 1,130 1,005
Other on-site (sf) 0
Off-site (sf) 0

Off-site (sf) 0

Existing BUA**** (sf) 4,587 14,581

Total (sf): 18,966 15,586

Stream Class and Index Number can be determined at: http://portal.ncdenr.org/web/wq/ps/csu/classifications Impervious area is defined as the built upon area including, but not limited to, buildings, roads, parking areas, sidewalks, gravel areas, etc.

*** Report only that amount of existing BUA that will <u>remain</u> after development. Do not report any existing BUA that is to be removed and which will be replaced by new BUA. 11. How was the off-site impervious area listed above determined? Provide documentation. n/a Projects in Union County: Contact DEMLR Central Office staff to check if the project is located within a Threatened & Endangered Species watershed that may be subject to more stringent stormwater requirements as per 15A NCAC 02B .0600. SUPPLEMENT AND O&M FORMS The applicable state stormwater management permit supplement and operation and maintenance (O&M) forms must be submitted for each BMP specified for this project. The latest versions of the forms can be downloaded from http://portal.ncdenr.org/web/wq/ws/su/bmp-manual. SUBMITTAL REQUIREMENTS VI. Only complete application packages will be accepted and reviewed by the Division of Energy, Mineral and Land Resources (DEMLR). A complete package includes all of the items listed below. A detailed application instruction sheet and BMP checklists are available from http://portal.ncdenr.org/web/wq/ws/su/statesw/forms_docs. The complete application package should be submitted to the appropriate DEMLR Office. (The appropriate office may be found by locating project on the interactive online map at http://portal.ncdenr.org/web/wq/ws/su/maps.) Please indicate that the following required information have been provided by initialing in the space provided for each item. All original documents MUST be signed and initialed in blue ink. Download the latest versions for each submitted application package from http://portal.ncdenr.org/web/wq/ws/su/statesw/forms_docs. Original and one copy of the Stormwater Management Permit Application Form. Initials Original and one copy of the signed and notarized Deed Restrictions & Protective Covenants Form. (if required as per Part VII below) 3. Original of the applicable Supplement Form(s) (sealed, signed and dated) and O&M agreement(s) for each BMP. Permit application processing fee of \$505 payable to NCDENR. (For an Express review, refer to http://www.envhelp.org/pages/onestopexpress.html for information on the Express program and the associated fees. Contact the appropriate regional office Express Permit Coordinator for additional information and to schedule the required application meeting.) 5. A detailed narrative (one to two pages) describing the stormwater treatment/management 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 $\frac{1}{2}$ mile of the site boundary, include the $\frac{1}{2}$ mile radius on the map. Sealed, signed and dated calculations (one copy). Two sets of plans folded to $8.5'' \times 14''$ (sealed, signed, & dated), including: a. Development/Project name. b. Engineer and firm. c. Location map with named streets and NCSR numbers. d. Legend. e. North arrow. f. Scale. g. Revision number and dates. h. Identify all surface waters on the plans by delineating the normal pool elevation of impounded structures, the banks of streams and rivers, the MHW or NHW line of tidal waters, and any coastal wetlands landward of the MHW or NHW lines. Delineate the vegetated buffer landward from the normal pool elevation of impounded structures, the banks of streams or rivers, and the MHW (or NHW) of tidal waters. i. Dimensioned property/project boundary with bearings & distances. j. Site Layout with all BUA identified and dimensioned. k. Existing contours, proposed contours, spot elevations, finished floor elevations. Details of roads, drainage features, collection systems, and stormwater control measures. m. Wetlands delineated, or a note on the plans that none exist. (Must be delineated by a qualified person. Provide documentation of qualifications and identify the person who made the determination on the plans. n. Existing drainage (including off-site), drainage easements, pipe sizes, runoff calculations. o. Drainage areas delineated (included in the main set of plans, not as a separate document).

 10. A copy of the most current property deed. Deed I 11. For corporations and limited liability corporation Secretary of State or other official documentation, by the persons listed in Contact Information, item The corporation or LLC must be listed as an activ Secretary of State, otherwise the application will http://www.secretary.state.nc.us/Corporations/ VII. DEED RESTRICTIONS AND PROTECTIVE OF 	copy of the NRCS County Soils map with the infiltration BMPs, the report should also and the method of determining the infiltration rate. The same with the same with the infiltration rate. The same with the same with the method of determining the infiltration rate. The same with the same with the same with the same with the NC w
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VII. DEED RESTRICTIONS AND PROTECTIVE (
For all subdivisions outposed	COVENANTS
provided as an attachment to the completed and notar restrictions and protective covenants forms can be downstormwater-forms docs. Download the latest versions	tent, the appropriate property restrictions and protective e of any lot. If lot sizes vary significantly or the proposed lot size, and the allowable built-upon area must be rized deed restriction form. The appropriate deed wnloaded from http://portal.ncdenr.org/web/lr/state-store.com/mittal
In the instances where the applicant is different it.	the property owner, it is the responsibility of the property enants form while the applicant is responsible for ensuring
under them, that they will run with the land, that the without concurrence from the NC DEMLR, and that the VIII. CONSULTANT INFORMATION AND AUTHORISM	ORIZATION
Applicant: Complete this section if you wish to designate consulting engineer and/or firm) so that they may provaddressing requests for additional information).	nate authority to another individual and/or firm (such as vide information on your behalf for this project (such as
Consulting Engineer: Victor White, P.E.	
Consulting Firm: Landmark Engineering & Environment	ntal, P.C.
Mailing Address: P.O. Box 1190	mai, F.C.
City: <u>Kitty Hawk</u>	
Phone: (252) 715-3497	
Email:vicor@landmarkong.net	Fax: ()
Email: vicor@landmarkeng.net IX. PROPERTY OWNER AUTHORIZATION (if Contage section)	tact Information, item 2 has been filled out, complete this
T Committee to the committee of the comm	
I, (print or time name of nergon listed in C	, item 2a) certify that I
I, (print or type name of person listed in Contact Information, own the property identified in this permit application, as listed in Contact Information, item 10)	or type name of person
I, (print or type name of person listed in Contact Information, own the property identified in this permit application, as listed in Contact Information, item 1a) Contact Information, item 1a)	, item 2a), certify that I ind thus give permission to (print or type name of person with (print or type name of organization listed in to develop the project as currently proposed. A copy of has been provided with the submittal, which indicates the stormwater system.

As the legal property owner I acknowledge, understand, and agree by my signature below, that if my designated agent (entity listed in Contact Information, item 1) dissolves their company and/or cancels or defaults on their lease agreement, or pending sale, responsibility for compliance with the DEMLR Stormwater permit reverts back to me, the property owner. As the property owner, it is my responsibility to notify DEMLR 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 NC General Statue 143-215.1 and may result in appropriate enforcement action including the assessment of civil penalties of up to \$25,000 per day, pursuant to NCGS 143-215.6.

Signature:			Date:	
I,do horshy	, a Notary	Public for the State of		Country of
, do nereby ce	rtury that			100 to 10
before me this day of		, and acknowledge the	due execution of	onany appeared
a stormwater permit. Witness my ha	and and official s	eal,	due execution of	the application for
	SEAL			
	My commiss	sion expires		
X. APPLICANT'S CERTIFICATION I, (print or type name of person listed in (certify that the information included of that the project will be constructed in and protective covenants will be record applicable stormwater rules under 15.	Contact Information this permit ap conformance wit ded, and that the ANCAC 211 100	plication form is, to the h the approved plans, to proposed project complet and any other application.	best of my knowl hat the required of plies with the required ble state stormwa	leed restrictions uirements of the leter requirements.
Chesapeake, do hereby certification of TULLA	a Notary I	Public for the State of	liquinia	, City , County of
efore me this 24 day of JU W	2021	T DOTTIFICE	persor	nally appeared
stormwater permit. Witness my hand	d and official sea	l, May Min	ue execution of the	ne application for
	SEAL	CHRISTY NICHO NOTARY PL REG. #766 COMMONWEALTH MY COMMISSION EXP	JBLIC 2038	
	My commission	on expires 9/30/24		

• File an Annual Report/Amend an Annual Report • Upload a PDF Filing • Order a Document Online • Add Entity to My Email Notification List • View Filings • Print a Pre-Populated Annual Report form • Print an Amended a Annual Report form

Limited Liability Company

Legal Name EVOLVE DESIGN + BUILD, LLC

Information

SosId: 1942470

Status: Current-Active ①
Date Formed: 1/28/2020
Citizenship: Domestic

Annual Report Due Date: April 15th CurrentAnnual Report Status:

Registered Agent: Daneker, Jordan B.

Addresses

MailingPrincipal OfficeReg OfficeReg Mailing261 Maple Road261 Maple Road261 Maple Road261 Maple RoadMaple, NC 27956Maple, NC 27956Maple, NC 27956Maple, NC 27956

Company Officials

All LLCs are managed by their managers pursuant to N.C.G.S. 57D-3-20.

Managing Member Assistant Vice President

Jordan Daneker Kyle Hatfield 261 Maple Rd 261 Maple Road

Maple NC 27956 Maple NC 27956

BK 1762 PG 821 - 822 (2) This Document eRecorded: Tax: \$1,180.00

DOC# 387792 03/06/2024 04:52:56 PM

Fee: \$26.00

Currituck County, North Carolina Denise A. Hall, Register of Deeds

Deni Ext.Cta

urrituck County Dand Transfer Tax: 5900 Excise Tax:	.00 County Excise T	ax: 1985 Sess	ions Law Chapter 670 (HB 21
LAUSE IAL.			
Parcel No: 0060-000-057E-0000 & 0060-000-057E		Recording 7	Time, Book and Page:
Mail after recording to: Brumsey & Brumsey.	, PLLC, P.O. Box 100, Ca	ırrituck, NC 2792	29
This instrument was prepared by: William Bru	msey, III/mnm file no. 23	B61392	
Ċ			
Brief Description for Index: Crawford	Township		
7			
NORTH CAROLIN	A GENERAL	WARR	NTY DEED
This DEED, made this 23rd. day of	f February	2024	by and between
GRANTOR Y		G	RANTEE
PATRICIA BERRY, widow			
TATMCIA DERRI, WILLOW	Limited Lis	DESIGN + BUILI ability Company	D, LLC, A North Carolina
1142 Water Chang	0		
1143 Waterlily Rd. Coinjock, NC 27923	3949 Carat Barco, NC	oke Hwy.	
	7	-1917	
Enter in appropriate block for each party: name, add	dress, and, if appropriate, c	haracter of entity	e a comporation or partnership
	***		enq. corporation of partitership.
The designation Grantor and Grantee as used herei	m shall include said partie	s, their heirs, succ	rescore and assigns and shall in the
singular, plural, masculine, feminine or neuter as req	uired by context.	s, sien nens, succ	and assigns, and shall include
	\mathcal{C}	·	
WITNESSETH, that the Grantor, for a valuable con-	sideration paid by the Gran	me, the receipt of	all of which is hereby acknowledged,
has and by these presents does grant, bargain, sell ar situated in Crawford Township, Currituck Count			
Lots 4 and 5 shown on a plat prepared by Sadle	e Successing DLIC	1.1	
Lot 4 & 5 Dates Commercial Lots recorded in	Plat Cabinet S, Slide 95	, in the office of	the Register of Deeds of
There is excepted from this conveyance any par Department of Transportation by Deed recorded	in Deed Book 582. Pag	parcels conveye e 93 and Deed 1	d to the North Carolina
		,-)
		0	Ó
All on a marriar of st.	10 - 21 - 21		S.
All or a portion of the property herein conveyed			
This instrument prepared by: William Brumsey, in the closing attorney to the County tax collector up	II, a licensed North Card on disbursement of closi	olina attorney. De	
	er e como rista escara en era producida actualizada en la como en		7

The property hereinabove described Deed Book 397, Page 38.	ed was acquired by Gr	rantor by instrum	ent recorded in Bo	ok	408	Page	887
A map showing the above describ	ed property is recorde	d in Plat Book	S	Page	95.		
TO HAVE AND TO HOLD th	e aforesaid lot or parc	el of land and al	privileges and app	ourtenanc	es thereto	belonging t	o Grantees in
And the Grantor covenants with t fee simple, that title is marketable lawful claims of all persons whom	and free and clear or	all enclimbrance	and that Granton	simple, l will wan	nas the righ rant and de	nt to conve	y the same in the against the
Title to the property hereinabove of	described is subject to	the following ex	ceptions:				
Reservations, restrictions and ea	sements of record.						
This conveyance is made subject to subdivision, development, con	t to any laws, rules, r struction on or use o	regulations or or f the property co	dinances, whether	r local, C	County, Sta	ate or Fed	eral, relating
7							
IN WITNESS WHEREOF, the Grant name by its duly authorized officers at	tor has hereunto set his and its seal to be hereunto	hand and seal, or affixed by authori	if corporate, has caus	sed this in	strument to	be signed i	n its corporate e written.
	3	- V	Thier F	B			(SEAL)
(Corporate By	Name	P	ATRICIA BERRY	Y		/	
	President				/-		_ (SEAL)
ATTEST:	, F.						
	G.	1.00					_ (SEAL)
S	Secretary (Corporate S	eal)					_ (SEAL)
I, Maydith N.		ředituck C		a Nota	ry Public o	lo hereby c	ertify
that PATRICIA BERRY	v 2 2 20	120					personally
appeared before me this day and ac	cknowledged the due	execution of the	foregoing instrumer	nt for the	purposes t	herein exp	ressed.
Witness my hand and official st	tamp or seal this	<u> 38 </u> ~	lay of Feb.	2	2024.		
STELL SELVING THE N. MANNEY	10	^	۵.,				
AFFIX GENAPL TO	4_	Maria	Malaus	lie			(SEAL)
A CONTRACT C	, N	otaly Public	L.	Y			- 1
PUBLIC COMMISSION STORY OF THE			, Lu				
A Physical Medical	. 10 2015	`	70				
My contrasportexpires:	U. 19, 2027	1	Y.	•			
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					5		
			Note to				

SUPPLEMENT-EZ COVER PAGE

FORMS LOADED

Project N	Name	
Project A	rea (ac)	Evolve Design + Build
	Netland Area (ac)	2.35
Surface 1	Vater Area (ac)	0
Is this pr	Dject High or Low Density?	0
Does this	project use an off-site SCM?	High
	The state of the s	No

7	Width of vegetated setbacks provided (feet)	
8	Will the vegetated setback remain vegetated?	N/A
9	If BUA is proposed in the cethods do at	N/A
10	If BUA is proposed in the setback, does it meet NCAC 02H.1003(4)(c-d)?	N/A
_	Is streambank stabilization proposed on this project?	No

11	Infiltration System	
12	Bioretention Cell	1
13	Wet Pond	0
14	Stormwater Wetland	0
15	Permeable Pavement	0
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	Ů.
25	Bayfilter	0
26	Filterra	0

FORMS LOADED

7 Name and Title:	
3 Organization:	Victor White, P.E.
9 Street address:	Landmark Eng. & Env., P.C.
City, State, Zip:	P.O. Box 1190
Phone number(s):	Kitty Hawk, NC 27949
2 Email:	252-715-3497
	victor@landmarkeng.net

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

<u>Designer</u>

DRAINAGE AREAS

1	Is this a high density project?	
2	If so, number of drainage areas/SCMs	Yes
3	Does this project have low density areas?	2
4	If so, number of low density drainage areas	No
5	Is all/part of this project subject to previous rule versions?	0
-	14013101131	No

CLICK TO	LOAD FORM	

INFILTRATION SYSTEM

2	Drainage area number Minimum required treatment volume (cu ft)	A
GENI	ERAL MDC FROM 02H .1050	2252 cf
3	Is the SCM sized to treat the SW from all	The same
4	Is the SCM sized to treat the SW from all surfaces at build-out?	Yes
	Is the SCM located away from contaminated soils?	Yes
5	trenches)?	4:1
6	side slopes?	
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 downtoring the DOM f	Yes
10	What is the method for dewatering the SCM for maintenance? If applicable, will the SCM be cleaned out after construction?	Other
11	Does the maintenance access comply with General MDC (8)?	Yes
12	Does the drainage easement comply with General MDC (8)?	Yes
10	If the SCM is on a single family let does (1912) the	N/A
13	If the SCM is on a single family lot, does (will?) the plat comply with General MDC (10)?	N/A
14	Is there an O&M Agreement that complies with General MDC (11)?	Yes
15 16	Is there an O&M Plan that complies with General MDC (12)?	Yes
	Does the SCIVI follow the device specific MDC2	Yes
17	Was the SCM designed by an NC licensed professional?	Yes
	RATION SYSTEM MDC FROM 02H .1051	
18	Proposed slope of the subgrade surface (%)	0.30/
19	Are terraces or baffles provided?	0-2% No
20	Type of pretreatment:	Other
oils D		Otner
21	Was the soil investigated in the footprint and at the elevation of the infiltration system?	
22	SHWT elevation (fmsl)	Yes
23	Depth to SHWT per soils report (in)	5.30
24	Ground elevation at boring in soils report (fmsl)	2.20
05	Is a detailed hydrogeologic study attached if the separation is	10.40
25 26	between 1 and 2 feet? Soil infiltration rate (in/hr)	N/A
27	Ecotor of anti-ty (TO)	10.00
levati	Factor of safety (FS) (2 is recommended):	2.00
20	Bottom elevation (fmsl)	8 ft
30	Storage elevation (fmsl)	9. ft
31	Bypass elevation (fmsl)	10 ft
	sins Only	TO R
32	Bottom surface area (ft²)	4440.0
33	Storage elevation surface area (#2)	1413 ft
or ire	nches Only	8734. ft
	Length (ft)	The state of the s
	Width (ft)	
36 F	Perforated pipe diameter, if applicable (inches)	
3/ 11	Number of laterals	
38	Total length of perforated piping	MANA WATE
39	Stone type, if applicable	
0 5	Stone porosity (%)	ALL DROPE STORY
1 1	s stone free of fines?	
2 1	s the stone wrapped in geotextile fabric?	THE PERSON NAMED IN COLUMN TO THE PE
0 1	las at least one inspection port been provided?	
iuiiies	SiDrawdown	
4 0	Design volume of SCM (cu ft)	7000
5 T	ime to draw down (hours)	7286 cf
DITIO	NAL INFORMATION	48 hrs
6 P	lease use this space to provide any additional information about the filtration system(s):	

INFILTRATION SYSTEM

GENE 3	Drainage area number Minimum required treatment volume (cu ft)	В
	ERAL MDC FROM 02H .1050	1851 c
		A DE NECES
4	to treat the SVV from all surfaces at build out?	Yes
-4	is the SCIVI located away from contaminated soile?	Yes
5	what are the side slopes of the SCM (H:V) or enter "Vortice!" for	103
-	Ta di locali:	6:1
6	Does the SCM have retaining walls, gabion walls or other engineered side slopes?	1
-		No
7	Are the inlets, outlets, and receiving stream protected from erosion	1,0
-		Yes
8	Is there an overflow or bypass for inflow volume in excess of the	
9	acsigit voidifie?	Yes
10	What is the method for dewatering the SCM for maintenance?	Other
11	in applicable, will tile SCIVI be cleaned out after construction?	Yes
12	Does the mainteliance access comply with Conord MDO (0)	Yes
	Does the drainage easement comply with Congret MDO (6)	N/A
13	In the colvins of a striple family lot does (will 2) the plat and the	1071
	General MDC (10)?	N/A
14	Is there an O&M Agreement that complies with General MDC (11)?	1.11/1
15	le there on OSM Distriction of the state of	Yes
16	Is there an O&M Plan that complies with General MDC (12)?	Yes
17	Does the SCIVI follow the device specific MDC2	Yes
THE PERSON NAMED IN	Was the SCM designed by an NC licensed professional?	Yes
NEILIE	CATION SYSTEM MDC FROM 02H ,1051	
18	Proposed slope of the subgrade surface (%)	0-2%
19	Are terraces or baffles provided?	No No
20	Type of pretreatment:	Other
oils Do		Other
21	Was the soil investigated in the footprint and at the elevation of the	
	The state of the s	Vac
22	SHWT elevation (fmsl)	Yes
23	Depth to SHWT per soils report (in)	5.30
24	Ground elevation at boring in soils report (fmel)	2.70
25	is a detailed hydrogeologic study attached if the consult.	10.40
	Tarricon I and 2 leet?	N/A
26	Soil infiltration rate (in/hr)	10.00
27	Factor of safety (FS) (2 is recommended):	2.00
evau	Ons	2.00
29	Bottom elevation (fmsl)	8 ft
30	Storage elevation (fmsl)	9.6 ft
31	Bypass elevation (fmsl)	9.0 ft
	sins Only	1011
	Bottom surface area (ft²)	0717.
33	Storage elevation surface area (#2)	2715 ft
	nches Only	5526. ft
rirei	Length (ft)	
34 L	Vidth (ft)	E AND E
34 L 35 V		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
34 L 35 V 36 F	Perforated pipe diameter, if applicable (inches)	
34 L 35 V 36 F	Perforated pipe diameter, if applicable (inches)	
34 L 35 V 36 F 37 N	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping	
34 L 35 V 36 F 7 N 8 T 9 S	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable	
84 L 85 V 86 F 7 N 8 T 9 S 0 S	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%)	
34 L 35 V 36 F 37 N 88 T 99 S 00 S	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Se stone free of fines?	
34 L 35 V 36 F 37 N 38 T 9 S 0 S 1 Is	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Sistone free of fines? Stone wrapped in geotextile fabric?	
34 L 35 V 36 F 37 N 88 T 99 S 00 S 11 Is 22 Is	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Se stone free of fines? So the stone wrapped in geotextile fabric?	
1 1 1 1 1 1 1 1 1 1	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Sistem stone free of fines? So the stone wrapped in geotextile fabric? Least at least one inspection port been provided? Storawdown Total pipe diameter, if applicable (inches) Storage diameter, if applicable (inches) Storage diameter, if applicable (inches)	
34 L 35 V 36 F 37 N 38 T 9 S 0 S 1 Is 2 Is 3 H. 1 Umes 4 De 5 Ti	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Se stone free of fines? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided?	6450 cf
1 1 1 1 1 1 1 1 1 1	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Se stone free of fines? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided? So the stone wrapped in geotextile fabric? Less at least one inspection port been provided?	6450 cf 48 hrs
84 L 85 V 86 F 87 N 88 T 89 S 00 S 11 Is 22 Is 33 H 4 Do 55 Ti	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Sistone free of fines? So the stone wrapped in geotextile fabric? Least at least one inspection port been provided? MOD'AWO'OWN LINFORMATION ALINFORMATION	THE R. LEWIS CO., LANSING, MICH.
34 L	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Is stone free of fines? Is the stone wrapped in geotextile fabric? It is as at least one inspection port been provided? It is a possible to drawdown Total length of SCM (cu ft) It is to draw down (hours) NAL INFORMATION The same and stone inspection provide any additional information in the stone wrapped in geotextile fabric?	THE R. LEWIS CO., LANSING, MICH.
34 L 35 V 36 F 37 N 38 T 39 S -0 S -1 Is 2 Is 3 H	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Sistone free of fines? So the stone wrapped in geotextile fabric? Least at least one inspection port been provided? MOD'AWO'OWN LINFORMATION ALINFORMATION	THE R. LEWIS CO., LANSING, MICH.
34 L	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Is stone free of fines? Is the stone wrapped in geotextile fabric? It is as at least one inspection port been provided? It is a possible to drawdown Total length of SCM (cu ft) It is to draw down (hours) NAL INFORMATION The same and stone inspection provide any additional information in the stone wrapped in geotextile fabric?	THE R. LEWIS CO., LANSING, MICH.
34 L	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Is stone free of fines? Is the stone wrapped in geotextile fabric? It is as at least one inspection port been provided? It is a possible to drawdown Total length of SCM (cu ft) It is to draw down (hours) NAL INFORMATION The same and stone inspection provide any additional information in the stone wrapped in geotextile fabric?	THE R. LEWIS CO., LANSING, MICH.
1 1 1 1 1 1 1 1 1 1	Perforated pipe diameter, if applicable (inches) Number of laterals Total length of perforated piping Stone type, if applicable Stone porosity (%) Is stone free of fines? Is the stone wrapped in geotextile fabric? It is as at least one inspection port been provided? It is a possible to drawdown Total length of SCM (cu ft) It is to draw down (hours) NAL INFORMATION The same and stone inspection provide any additional information in the stone wrapped in geotextile fabric?	THE R. LEWIS CO., LANSING, MICH.



LANDMARK ENGINEERING & ENVIRONMENTAL, P.C.

P.O. Box 1190 KITTY HAWK, NC 27949 (252) 715-3497

Evolve Deign + Build 3949 Caratoke Highway, Barco, Currituck County

Stormwater Management Plan Design Narrative

June 24, 2024

The above referenced project is additional development of an existing commercial business. The business is located on lots 4 and 5 of "Barco Commercial Lots" as recorded with the Currituck County Register of Deeds. The two lots are a total of 102,427 sq.ft. or 2.35 acres. Existing Development at the site is concentrated on Lot 5 with and existing commercial building and associated parking and other infrastructure. The proposed development of the project area consists of an additional "service" building at the rear of lot 5 with associated concrete drive and associated infrastructure. Lot 4 development will consist of a gravel parking area, and a grass storage area with associated infrastructure. Stormwater runoff from the project, both existing and proposed, will be managed by 2 drainage areas, Drainage Area "A" will manage runoff from the majority of the proposed development, with the exception being the roadside concrete walk on Lot 5. Drainage Area "A" also receives runoff from the existing entrance drive from Caratoke Highway. Drainage Area "B" receives Stormwater runoff from the remaining existing impervious surfaces on Lot 5 and the proposed roadside concrete sidewalk on Lot 5. Stormwater runoff generated by the project will be managed by infiltration/detention basins through sheet flow.

Design parameters for the Stormwater Management conservatively assume 95% of runoff from impervious asphalt, concrete, gravel surfaces and buildings will be conveyed to the proposed infiltration /detention basins. The design storms for the system are a 1.5 inch rain event, (State, infiltration), and the runoff difference between the 2 year, 24 hour storm, (pre-development), and 5 year, 24 hour storm, (post-development), (County, detention and infiltration). Due to the soils present and conditions at the site, pre-development runoff at the site is taken as 0, and the design volume of the basins will retain the runoff volume from impervious surfaces generated by the 5 year, 24 hour storm. This storm is listed as a 4.81 inch rain event, according to NOAA Point Precipitation Frequency Estimates for the area. The site is located at 3949 Caratoke Highway, Barco, Currituck County. North Carolina.

The proposed stormwater management plan consists of two drainage areas. For Drainage Area "A". The infiltration area consists of a perimeter swale/basin system as shown on the attached drawings. Proposed impervious coverages consist of the proposed building, (2,705 sq. ft.), proposed concrete, (5,324 sq.ft.), proposed gravel pavement, (6,350 sq. ft.), and existing asphalt, (4,587 sq. ft.). The infiltration system for Drainage Area "A" will provide direct storage of 7,286 cu. ft., equivalent to a 4.85 inch rain event. Storage below the basin and above the Seasonal High Water Table provides additional storage of 4,525 cu.ft. for total storage for a 7.86 inch rain event.

For Drainage Area "B". The infiltration area consists of a rectangular basin with a conveyance swale as shown on the attached drawings. Proposed impervious coverages consist of the existing building, (2,256 sq. ft.), proposed concrete walk, (1,005 sq.ft.), existing asphalt pavement, (11,480 sq. ft.), and existing concrete, (845 sq. ft.). The infiltration system for Drainage Area "A" will provide direct storage of 6,450 cu. ft., equivalent to a 5.22 inch rain event. Storage below the basin and above the Seasonal High Water Table provides additional storage of 2,984 cu.ft. for total storage for a 7.64 inch rain event.

Erosion control measures for the site consist of temporary silt fence and inlet protection as well as permanent stabilization of soils at the site. All slopes are 4H: 1V or flatter, with the majority of slopes being 5H or 6H to 1V slope.



LANDMARK ENGINEERING & ENVIRONMENTAL, P.C.

P.O. Box 1190 KITTY HAWK, NC 27949 252-715-3497

Evolve Design + Build STORMWATER MANAGEMENT PLAN CALCULATIONS 7/23/24

Infiltration Basin Contour Areas (Calculated/verified by Autocad)

DRAINAGE AREA "A"

Large Infiltration Basin Contour Areas

9.0' - 8,734 sq.ft. (Top of storage)

8.5' - 5,216 sq. ft.

8.0' - 2,827 sq. ft.

7.5' - 1,413 sq. ft. (Bottom of basin)

Large Basin Open Volume

9.0' to 8.5'

0.5 ft x ((8,734 sq. ft. + 5,216 sq. ft.)/2) = 3,488 cu. ft.

8.5' to 8.0'

0.5 ft x (5,216 sq. ft. + 2,827 sq. ft.)/2) = 2,011 cu. ft.

8.0' to 7.5'

0.5 ft x ((2,827 sq. ft. + 1,413 sq. ft.)/2) = 1,060 cu. ft.

Total Large Basin Open Volume

= 6,559 cu. Ft.

Small Infiltration Basin Contour Areas

9.0' - 1,550 sq.ft. (Top of storage)

8.5' - 646 sq. ft.

8.0' - 66 sq. ft. (Bottom of basin)

Small Basin Open Volume

9.0' to 8.5'

0.5 ft x ((1,550 sq. ft. + 646 sq. ft.)/2) = 549 cu. ft.

8.5' to 8.0'

0.5 ft x (646 sq. ft. + 66 sq. ft.)/2) =

= 178 cu. ft.

Total Small Basin Open Volume

727 cu. Ft.

Total Basins Open Volume Drainage Area "A"

= 7,286 cu. Ft.

Drainage Area "A" Impervious coverages runoff: (post Development)

Buildings: 2,705 sq. ft. (.95 runoff coefficient) = 2,570 sq. ft. (Effective area)

Concrete: 5,324 sq. ft. (.95 runoff coefficient) = 5,058 sq. ft. (Effective area)

Asphalt: 4,587 sq. ft. (.95 runoff coefficient) = 4,358 sq. ft. (Effective area) Gravel 6,350 sq. ft. (.95 runoff coefficient) = 6,032 sq. ft. (Effective area)

Total Effective Impervious Area - D.A. "A" = 18,018 sq. ft. = 0.4136 acres

Volume required to retain 1.5 inch design storm (State) = 18,018(1.5/12) = 2,252 cu. Ft. Volume required to retain 4.81 inch design storm (County) = 18,018(4.81/12) = 7,222 cu. Ft.

Therefore, Total Direct Storage to elevation 9.0'is in excess of the 4.81 inch County Design Storm.

Additional Storage in Soil Voids above the Seasonal High Water Table, (S.H.W.T.) = $(8,734 \text{ sq. ft.} + 1,550 \text{ sq. ft.}) \times 2.2 \text{ ft.} \times 0.20 = 4,525 \text{ cu. Ft.}$

Therefore, Total Direct and Indirect Storage to elevation 9.0'is equal to precipitation from a 7.86 inch Storm Event.



LANDMARK ENGINEERING & ENVIRONMENTAL, P.C.

P.O. Box 1190 KITTY HAWK, NC 27949 252-715-3497

Page 2

DRAINAGE AREA "B"

Infiltration Basin Contour Areas 9.6' – 5,526 sq.ft. (Top of storage @ Overflow Elevation) 9.0' – 4,293 sq. ft. 8.0' – 2,715 sq. ft. (Bottom of basin)

Basin Open Volume

9.6' to 9.0' 0.6 ft x ((5,526 sq. ft. + 4,293 sq. ft.)/2) = 2,946 cu. ft. 9.0' to 8.0' 1.0 ft x (4,293 sq. ft. + 2,715 sq. ft.)/2) = 3,504 cu. ft.

Total Basin Open Volume Drainage Area "B" = 6,450 cu. Ft.

Drainage Area "B" Impervious coverages runoff: (post Development)

Buildings: 2,256 sq. ft. (.95 runoff coefficient) = 2,143 sq. ft. (Effective area)

Concrete: 1,850 sq. ft. (.95 runoff coefficient) = 1,758 sq. ft. (Effective area)

Asphalt: 11,480 sq. ft. (.95 runoff coefficient) = 10,906 sq. ft. (Effective area)

Total Effective Impervious Area - D.A. "B" = 14,807 sq. ft. = 0.340 acres

Volume required to retain 1.5 inch design storm (State) = 14,807(1.5/12) = 1,851 cu. Ft. Volume required to retain 4.81 inch design storm (County) = 14,807/(4.81/12) = 5,935 cu. Ft.

Therefore, Total Direct Storage to elevation 9.6'is in excess of the 4.81 inch County Design Storm.

Additional Storage in Soil Voids above the Seasonal High Water Table, (S.H.W.T.) = $(5,526 \text{ sq. ft.}) \times 2.7 \text{ ft.} \times 0.20 = 2,984 \text{ cu. Ft.}$

Therefore, Total Direct and Indirect Storage to elevation 9.6'is equal to precipitation from a 7.64 inch Storm Event.



LANDMARK ENGINEERING & ENVIRONMENTAL, P.C.

P.O. Box 1190 KITTY HAWK, NC 27949 252-715-3497

Subject:

Field evaluation of soil characteristics for Evolve Design & Build, located at 3949 Caratoke Highway, Barco, Currituck County, North Carolina.

The above site was visited by representatives of Landmark Engineering & Environmental, P.C. On July 9, 2024 to obtain information on soil profile characteristics in the proposed Stormwater Infiltration Basin Area for Drainage area "B" at the site and corroborate findings from Protocol Sampling Service's investigation of the soils at the site from March 27, 2024. The findings are as follows:

Physical observation and written profiles of the soils were completed during a single soil boring advanced at the site. The soil profile encountered during the boring is listed below as follows:

Boring #1 (ground Elevation 10.4' msl +/-)

0"-12"	Dark Brown - Brown silty fine sand - (SP-SM), (7.5YR 4/4). common fine root matter
12"-22"	Light Yellowish Brown fine sand - (SP), (10YR 6/4). some fine root matter
22"-50"	Brownish Yellow fine sand with some clay and silt - (SP-SC) (10YR 6/8), clay content gradually decreasing with depth throughout profile
50"-64"	Brownish Yellow silty fine sand - (SP-SM) (10YR 6/8), slightly moist starting at 58"-60", moisture content increasing with depth to 66". Faint SHWT indicators detected at 62"-64"
64"-74"	Light Yellowish Brown fine sand - (SP) (10YR 6/4), moisture increasing with depth. SHWT indicators detected at 64"-66" No static water detected at end of boring (74" BLS)

SHWT conservatively estimated to be at 5.3' msl (NAVD 88)

Based on site investigations, the soils present at the site are consistent with a State Loamy Fine Sand, (StA). This classification corresponds well with the USDA's "Soil Survey of Currituck County North Carolina". Soils encountered during site investigations have estimated infiltration rates of 10 to in excess of 20"/hr. A Conservative Seasonal High Water Table, (SHWT) elevation of 5.3' msl, (NAVD 88 Datum), was calculated based on the boring at the site and Protocol Sampling's previous investigation. Using this conservative estimate of the SHWT, the bottom of the infiltration basin has a 2 + foot separation from the SHWT.



Protocol Sampling Service, Inc. "Experts in Environmental Compliance"

Protocolsampling@yahoo.com Environmentalservicesnc.com

4114 Laurel Ridge Drive Raleigh, North Carolina 27612

April 2, 2024

Mr. Thomas Kwasny, P. E. Civil Engineering and Land Planning Consultants 198 Augusta Drive Grandy, North Carolina 27939

Re.

Soil Inspection - Stormwater - Evolve Design + Build

0 Caratoke Highway

Barco, Currituck County, North Carolina

Protocol Project No. 24-56

Dear Mr. Kwasny:

The subject property that will be developed as a warehouse facility was inspected by Protocol Sampling Service, Inc., personnel Wednesday, March 27, 2024. Protocol personnel inspected the lot by advancing two (2) soil borings for lithologic descriptions, depth to the seasonal high-water table and the depth to static water table in proposed storm water basin "A".

The infiltration area was found to be flat (slope <1.0%) with surveyed elevations of 8.6 to 8.9 feet-msl. The seasonal high-water table was found from 42 to 43 inches below land surface and the static water table was found from depths of 54 to 55-inches below the soil surface across the study area. The soil matched the State soil series profile with excellent structure (granular), consistence (friable) and texture (loamy sand) with a seasonal high water table elevation of 5.10 to 5.32' msl. Given a 20% porosity value for the loamy sand surface soils and an infiltration rate of at least 20.0-inches/hour, which overlies a sandy clay loam with greater than 30% porosity with an infiltration rate of 10.0-inches/hour, the infiltration area should easily accept any storm water flow from the impervious areas.

Please call me at (919) 210-6547 if you have any questions or comments.

Sincerely,

Protocol Sampling Service, Inc.

David E. Meyer, N.C.L.S.S.

file

President

cc:

Soil Profile Description O Caratoke Highway – Profile 1&2

- A 0-8 inches; dark brown (7.5YR 3/3) loamy fine sand; granular; friable.
- E 8-14 inches; yellowish brown (10YR 5/4) loamy sand; granular; friable.
- Bt 14-36 inches; brownish yellow (10YR 6/8) sandy clay loam; subangular blocky; friable.
- BC 36 42 inches; brownish yellow (10YR 6/8) and very pale brown (10YR 7/4) sandy loam; subangular blocky; friable.
- C1 42 60 inches; brownish yellow (10YR 6/8) loamy sand with strong brown (7.5YR 5/6) concentrations and gray (10YR 6/1) depletions; single grained; loose
- C2 60 72 inches; light yellowish brown (10YR 6/4) fine sand; single grained; loose

Soil Series: State

Landscape: Coastal Plain

Landform: terrace

Parent Material: Marine sediments Drainage Class: well drained Particle Size Class: sandy Temperature Regime: thermic

Subgroup Classification: Typic Hapludult

Examination Method: auger boring

Date: March 27, 2024 Weather: Overcast, 55° Investigators: David Meyer

Shwt: 42-43"

Measured water table depth: 54-55"

Natural Resources Conservation Service

USDA

36° 23 11" N

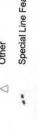
Web Soil Survey National Cooperative Soil Survey

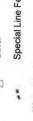
MAP LEGEND

rea of I	vrea of Interest (AOI)	W	Spoil Area
	Area of Interest (AOI)	0	Stony Spot
Silo	Soil Map Unit Polygons	8	Very Stony S
	Soil Map Unit Lines	\$20	Wet Spot
	Soil Map Unit Points	Q	Other
Special	Special Point Features	,	Special Line

tony Spot

Other	Special Line Features
Q	,























Borrow Pit

Blowout

Clay Spot



Closed Depression



Gravelly Spot

Gravel Pit



Marsh or swamp

Lava Flow

Landfill

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop Saline Spot Sandy Spot

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

contrasting soils that could have been shown at a more detailed misunderstanding of the detail of mapping and accuracy of soil Enlargement of maps beyond the scale of mapping can cause line placement. The maps do not show the small areas of scale.

Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Coordinate System: Web Mercator (EPSG:3857) Web Soil Survey URL:

distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Currituck County, North Carolina Survey Area Data: Version 23, Sep 13, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: May 18, 2022-May

The orthophoto or other base map on which the soil lines were

Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
StA	State fine sandy loam, 0 to 2 percent slopes	7.8	99.1%
То	Tomotley fine sandy loam	0.1	0.9%
Totals for Area of Interest		7.9	100.0%

Operation & Maintenance Agreement Project Name: Evolve Design + Build Project Location: 3949 Caratoke Highway, Barco, Currituck County Cover Page Maintenance records shall be kept on the following SCM(s). This maintenance record shall 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). The SCM(s) on this project include (check all that apply & corresponding O&M sheets will be added automatically): Quantity: Infiltration Trench Location(s): Quantity: 0 Bioretention Cell Location(s): Quantity: 0 Wet Pond Location(s): Quantity: 0 Stormwater Wetland Location(s): Quantity: Permeable Pavement 0 Location(s): Quantity: 0 Sand Filter Location(s): Quantity: 0 Rainwater Harvesting Location(s): Quantity: 0 Green Roof Location(s): Quantity: 0 Level Spreader - Filter Strip Location(s): Quantity: 0 Proprietary System Location(s): Quantity: 0 Treatment Swale Location(s): Quantity: Dry Pond 0 Location(s): Disconnected Impervious Surface Quantity: 0 Location(s): Present: No User Defined SCM Location(s): Present: Low Density No Location(s): Present: No Type: **CLICK TO UPDATE O&M MANUAL** I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed for each SCM above, and attached O&M tables. I agree to notify NCDEQ of any problems with the system or prior to any changes to Responsible Party: Mr. Jordan Daneker Title & Organization: Managing Member, Evolve Design + Build, LLC Street address: 3949 Caratoke Highway City, state, zip: Barco, NC 27917 Phone number(s): Email: Signature: 7-24-24 Date: a Notary Public for the State of County of do hereby certify that Jordan personally appeared before me this day of July 702U acknowledge the due execution of the Operations and Maintenance Agreement. Nitness my hand and official seal, CHRISTY NICHOLE FILLIPAK NOTARY PUBLIC REG. #7662038 COMMONWEALTH OF VIRGINIA MY COMMISSION EXPIRES 09/30/2024 eal My commission expires ORM-EZ rsion 1.5

O&M Agreement

7/23/2024

Infiltration Basin Maintenance Requirements

Important operation and maintenance procedures:

- The drainage area will be carefully managed to reduce the sediment load to the infiltration basin.
 No portion of the infiltration basin will be fertilized after the initial fertilization that is required to establish
- the vegetation. Lime may be allowed if vegetation is planted on the surface of the infiltration basin and a soil test shows that it is needed.
- The vegetation in and around the basin will be maintained at a height of four to six inches.

After the infiltration basin is established, it will be inspected quarterly and within 24 hours after every storm event greater than 1.0 inches (or 1.5 inches if in a Coastal County). Records of operation and maintenance shall be kept in a known set location and shall be available upon request.

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

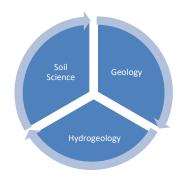
SCM element:	Potential problem:	How to remediate the problem:
The entire infiltration basin	Trash/debris is present.	Remove the trash/debris.
The grass filter strip or	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, plant ground cover and water until it is established. Provide lime and a one-time fertilizer application.
other pretreatment area	Sediment has accumulated to a depth of greater than three inches.	
The flow diversion structure (if applicable)	The structure is clogged.	Unclog the conveyance and dispose of any sediment in a location where it will not cause impacts to streams or the SCM.
	The structure is damaged.	Make any necessary repairs or replace if damage is too much for repair.
	The inlet pipe is clogged (if applicable).	Unclog the pipe and dispose of any sediment in a location where it will not cause impacts to streams or the SCM.
Cho inlet devi-	The inlet pipe is cracked or otherwise damaged (if applicable).	Repair or replace the pipe.
The inlet device	Erosion is occurring in the swale (if applicable).	Regrade the swale if necessary and provide erosion control devices such as reinforced turf matting or riprap to avoid future erosion problems.
	Stone verge is clogged or covered in sediment (if applicable).	Remove sediment and clogged stone and replace with clean stone.
	sediment has accumulated.	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 of the basin surface has occurred or riprap is displaced.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
1	than three days after a	Replace the top few inches of soil to see if this corrects the standing water problem. If not, consult an appropriate professional for a more extensive repair.



This map should be used for general reference purposes only. Currituck County assumes no legal liability for the information shown on this map. This map is not a survey.

0.4 mi

0.1



Protocol Sampling Service, Inc. "Experts in Environmental Compliance"

Protocolsampling@yahoo.com Environmentalservicesnc.com

April 2, 2024

4114 Laurel Ridge Drive

Raleigh, North Carolina 27612

Mr. Thomas Kwasny, P. E. Civil Engineering and Land Planning Consultants 198 Augusta Drive Grandy, North Carolina 27939

Re: Soil Inspection – Stormwater – Evolve Design + Build

0 Caratoke Highway

Barco, Currituck County, North Carolina

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David E. Meyer, N.C.L.S.S.

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