

## DOWN CAPE ENGINEERING, INC.

939 Main Street  
Yarmouth Port, MA 02675  
508-362-4541

### Transmittal

DCE Job # 17-198

Date: September 20, 2022

To: Elaine Banta, Planning Assistant  
Planning Department  
Town of Harwich  
732 Main Street  
Harwich, MA 02645

From: Priscilla Leclerc

Subject: Our Definitive Subdivision Submission

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Enclosed are the following for the Definitive Subdivision application off Littlefield Pond Road:

- Application, (2 copies), one for Planning and one for the Town Clerk
- Project Narrative and Proposed Street Names (2 copies)
- Copies of Current Deeds: Book 29526 Page 215, Book 30127 Page 311, and Book 30127 Page 308 (2 copies of each)
- Municipal Lien Certificates (2 copies)
- Copy of Board of Health Preliminary Subdivision Approval July 17, 2019 (2 copies)
- Definitive Subdivision Plan of Land, Off Littlefield Pond Road, Harwich, MA, prepared for R.B. Our Co. Et Al, dated January 26, 2022; 1 mylar, 6 full size (24"x36"); 11 reduced (11"x17"), plus one full size and one 11"X17" plans for the Town Clerk
- Roadway Profile & Detail Sheet to accompany Definitive Subdivision Plan of Land (2-page set); 3 full size sets; 11 reduced (11"x17"), plus one 11"X17" set for the Town Clerk
- Sketch Plan to Accompany Subdivision Plan of Land at 1" =100' scale, 2 copies
- Drainage Calcs (2 copies)
- Subdivision Protective Covenants – draft (2 copies)
- Check in the amount of \$4,725.00 for the fee.

Please call/email should you have any questions.

DOWN CAPE ENGINEERING, INC.  
939 Route 6A, Suite C  
Yarmouth Port, MA 02675  
telephone: 508-362-4541  
priscilla@downcape.com

# TOWN OF HARWICH PLANNING DEPARTMENT



PLANNING BOARD APPLICATION  
**SUBDIVISION FORM B-1**

TO THE TOWN CLERK, HARWICH, MA                      DATE \_\_\_\_\_

## PART A – APPLICANT INFORMATION/AUTHORIZATION

<b>Applicant Name(s)</b>	Christopher W. Our, Mark Giarrusso (H.B. Homes), Janet S. Our, Bryan Blanchard, Scott O. Our
<b>Representative/Organization (Who will serve as the primary contact responsible for facilitating this application?)</b>	Daniel A. Ojala, PE, PLS, Down Cape Engineering, Inc.
<b>Street/PO Box</b>	939 Route 6A
<b>Town, ST, Zip</b>	Yarmouth Port, MA 02675
<b>Phone</b>	508-362-4541
<b>Fax</b>	508-362-9880
<b>E-mail</b>	info@downcape.com downcape@downcape.com

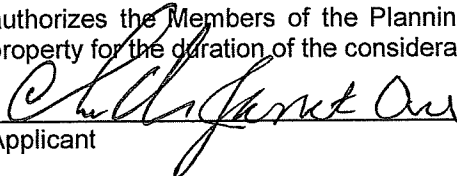
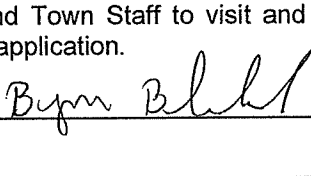
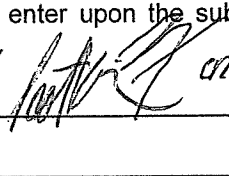
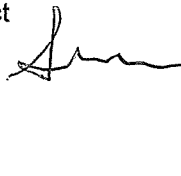
The applicant is one of the following: *(please check appropriate box)*

- Owner   
  Tenant\*   
  Prospective Buyer\*   
  Representative for Owner/Tenant/Buyer  
 Other\* \_\_\_\_\_                      **\*Written permission of the owner(s).**

All other forms and information as required in the Harwich Code §400 shall be submitted as part of this application including municipal lien certificate(s), available through the Tax Collector's Office.

### Authorization

Your signature hereby asserts, to the best of your knowledge, that the information submitted in this application is true and accurate; that you agree to fully comply with the Town of Harwich Zoning By-laws and the terms and conditions of any approval of this application by the Planning Board; and authorizes the Members of the Planning Board and Town Staff to visit and enter upon the subject property for the duration of the consideration of this application.

Owner(s) – Authorization must accompany application if the owner is not the applicant.

*Official use only:*

PLANNING DEPARTMENT	TOWN CLERK
Case #	

**PART B – PROJECT LOCATION**

Street Address	OFF LITTLEFIELD POND RD	
Village		Zip Code
Map	77 and 65	Parcel (77) C20 & C22 (65) R2 & R3
Zoning District(s)	RR	
Frontage (linear feet)	78.85	
Total land area (SF)	393,288	
Upland (SF)	392,208	Wetlands (SF) 1,080
Number of lots and/or parcels	Existing: 4	Proposed: 7

The owner's title to said land is derived under deed from MULTIPLE DEEDS: BK 29526 PG 215, dated 5/23/16, 11/30/16, 11/30/16 and recorded in the Barnstable Registry of Deeds BK 30127 PG 311 Book and Page \_\_\_\_\_ or registered in Barnstable County Land Court BK 30127 PG 308 Certificate of Title No. \_\_\_\_\_.

**PART C – PROJECT DESCRIPTION**

Number of lots and/or parcels	Existing: 4	Proposed: 7
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The undersigned owners of all land described herein submitted in the accompanying plan entitled DEFINITIVE SUBDIVISION PLAN OF LAND OFF LITTLEFIELD POND RD and dated 1/26/2022, request a determination and endorsement by said Board that approval by it under the **Subdivision Control Law MGL Ch. 41 Sec. 81K-GG**: (check as appropriate)

is required (complete Part C.1 Subdivision) or  is NOT required (complete Part C.2 ANR)

**PART C.1 – Planning Board Approval is Required - Subdivision**

- The accompanying plan is a (check one):
  - Preliminary plan
  - Definitive without a preliminary plan
  - Definitive following a Preliminary plan filed on JUNE 18, 2019 /case # PB 2019-25
  - Modification of a Definitive plan approved on \_\_\_\_\_ /case # PB \_\_\_\_\_
  - Rescission of a Definitive plan approved on \_\_\_\_\_ /case # PB \_\_\_\_\_
- The applicant is also requesting a **Special Permit** to accompany the proposed plan for the following (check all that apply):
  - USE - Does not require Site Plan Review
    - \_\_\_ Open Space Residential Development
    - \_\_\_ Flexible Cluster Development/Six Ponds Special District
    - \_\_\_ Accessory Apartment
    - \_\_\_ Two-Family Dwellings
    - \_\_\_ Other \_\_\_\_\_
  - OVERLAY DISTRICT
    - \_\_\_ Water Resource Protection
    - \_\_\_ Harwich Center
    - \_\_\_ Six Ponds
    - \_\_\_ Village Commercial (Harwich Port)

*\*Note: Projects within the Harwich Center Overlay District may also be within the Harwich Center Historic District. This requires separate filing with the Historic District Commission. Please inquire with the Building Department for forms and instructions.*

**PART C.2 – Planning Board Approval is Not Required - ANR**

The accompanying plan does not require approval by the Planning Board because:

- 1. The lots are created on an approved way, with proper frontage and are served by safe and adequate access as follows:
  - a. Every lot shown on the plan has frontage of at least such distance as is presently required by the Zoning Code of the Town of Harwich under Article VI: §325-15 and §325-16, Table 2 which requires \_\_\_\_\_ feet for erection of a building on such lot, **and**;
  - b. The lots shown on such plan front on one of the three types of ways specified in Chapter 41, Section 81L, MGL, **and**;
    - a public way or a way that the Harwich Town Clerk certifies is maintained and used as a public way namely \_\_\_\_\_, or
    - a way shown on a plan previously approved and endorsed in accordance with the subdivision control law namely \_\_\_\_\_ on \_\_\_\_\_ and subject to the following conditions \_\_\_\_\_; or
    - a private way in existence on March 25, 1949, the date when the subdivision control law became effective in the Town of Harwich, and
  - c. The public or private way named above has, in the opinion of the Board, sufficient width, suitable grades and adequate construction to provide for the needs of vehicular traffic in relation to the land abutting or served thereby, and for the installation of municipal service to serve such land and the buildings existing thereon to be erected.

**PROOF OF SAFE AND ADEQUATE ACCESS** – Please attach all necessary documentation to this application for:

  - Determination of Safe and Adequate Access for existing conditions
  - Satisfaction of Safe and Adequate Access for proposed conditions
- 2. The accompanying plan is not a subdivision because the plan does not show a division of land.
- 3. The division of the tract of land shown on the accompanying plan is not a "subdivision" because it shows a proposed conveyance/other instrument, namely \_\_\_\_\_ which adds to/takes away from/changes the size and shape of, lots in such a manner so that no lot affected is left without frontage as required by Zoning Code of the Town of Harwich under Article VI: §325-15 and §325-16, Table 2 which requires \_\_\_\_\_ feet.
- 4. The division of the tract of land shown on the accompanying plan is not a subdivision because two or more buildings, specifically \_\_\_\_\_ buildings were standing on the property prior to March 25, 1949 the date when the subdivision control law went into effect in the Town of Harwich and one of such buildings remains standing on each of the lots/said buildings as shown and located on the accompanying plan. Evidence of the existence of such buildings prior to the effective date of the subdivision control law as follows:
- 5. Other reasons or comments: *(See MGL, Ch41, §81-L)*

**DOWN CAPE ENGINEERING, INC.**

Daniel A. Ojala, PLS, PE, President  
939 Main Street  
Yarmouth Port, MA 02675  
508-362-4541

Off Littlefield Pond Road, Harwich  
Definitive Subdivision Project Narrative

A seven lot Definitive Subdivision is proposed on approximately nine acres off Littlefield Pond Road and Fish and Game Drive in Harwich. An identical Preliminary Plan was filed and approved by the Planning Board and Board of Health for the property in 2019. The lots vary in size from 40,205 sf to 66,703 square feet and are designed to meet area, frontage, width, and shape requirements without variance. The plan will be refiled with the Board of Health as well as the Planning Board. One bedroom per 10,000 sf of lot area remains the maximum septic load proposed.

After the Preliminary approvals an ANR plan was created to divide off some Conservation Parcels to the South, and as the area is mapped for rare wildlife, the proposal was filed with NHESP, and was subsequently approved by that agency. A significant amount of open space and Wildlife and Conservancy easements are proposed as part of the subdivision, a copy of the NHESP approval is attached for reference.

Also attached is the stormwater report with drainage calculations, as well as the mylar definitive plan and the roadway profile and details. The entrance roadway formalizes the extension of Fish and Game Drive, and an apron will be provided for access to the nearby Fish and Game club. At the turn South after the Fish and Game access, there is a standard roadway and cul-de-sac proposed.

Similar to the other subdivision of Belmont Estates, a waiver to not construct a sidewalk is requested. This waiver is requested to maintain the rural nature of the area, noting that the road is a dead end and low traffic speeds are anticipated.

Less maintenance is required for snow plowing and mowing without a dedicated sidewalk.

A draft of the Subdivision Protective Covenants which restrict the Wildlife and Conservancy Areas is attached for review and comment.

The road name of Wildlife Circle is proposed, other options are provided as a contingency.

**DOWN CAPE ENGINEERING, INC.**

Daniel A. Ojala, PLS, PE, President  
939 Main Street  
Yarmouth Port, MA 02675  
508-362-4541

Off Littlefield Pond Road, Harwich

Definitive Subdivision

Proposed Street Names:

Wildlife Circle

Fish and Game Drive Extension

Outdoors Drive

Bk 29526 Pg 215 #13654  
03-23-2016 @ 11:42a

MASSACHUSETTS STATE EXCISE TAX  
BARNSTABLE COUNTY REGISTRY OF DEEDS  
Date: 03-23-2016 @ 11:42am  
Ct1#: 483 Doc#: 13654  
Fee: \$1,624.50 Cons: \$475,000.00

BARNSTABLE COUNTY EXCISE TAX  
BARNSTABLE COUNTY REGISTRY OF DEEDS  
Date: 03-23-2016 @ 11:42am  
Ct1#: 483 Doc#: 13654  
Fee: \$1,282.50 Cons: \$475,000.00

### QUITCLAIM DEED

**NORTH ATLANTIC REALTY GROUP, INC**, a Massachusetts corporation, whose business address is 16 Kings Way, Hyannis, MA 02601

for consideration paid in full in the amount of FOUR HUNDRED AND SEVENTY-FIVE THOUSAND AND NO/100 (\$475,000.00) DOLLARS

grants to **HYBRID BUILT HOME, LLC**, a Massachusetts Limited Liability Company, c/o 76 Kilby Street, Hingham, MA 02043,

with quitclaim covenants,

The land situated in Harwich, Barnstable County, Massachusetts described as follows:

**LOTS 6A AS SHOWN ON PLAN OF BELMONT ESTATES FILED WITH THE BARNSTABLE COUNTY REGISTRY OF DEEDS IN PLAN BOOK 637, PAGE 100**

**LOTS 7,8,9,10,11 and 13 AS SHOWN ON PLAN OF BELMONT ESTATES FILED WITH THE BARNSTABLE COUNTY REGISTRY OF DEEDS IN PLAN BOOK 625, PAGES 93 TO 96**

Subject to and together with the benefits of all rights, rights of way, easements, reservations and restrictions of record, if any there be and to the extent they may be now in full force and applicable.

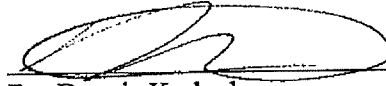
Meaning and intending to convey the same premises contained in a Deed recorded with the Barnstable County Registry of Deeds in Book 29462, Page 200.

Property Address: 11,13,14,15,16 and 17 Littlefield Pond Road and 3 Fish & Game Drive, Harwich, MA 02645

**This conveyance is in the ordinary course of business and does not constitute a transfer of all or substantially all of corporate assets of North Atlantic Realty Group, Inc. in Massachusetts.**

Witness the execution and the corporate seal of said corporation this 21<sup>st</sup> day of March, 2016

**North Atlantic Realty Group, Inc.**



By: Dennis Kerkado,  
Manager and Authorized Signatory

Commonwealth of Massachusetts

Barnstable, ss:

On this 21<sup>st</sup> day of March, 2016, before me, the undersigned Notary Public, personally appeared Dennis Kerkado, who acknowledged himself/herself as the Manager and Authorized Signatory of North Atlantic Realty Group, Inc. and that he/she as such being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the names of the corporation.



Notary Public: Stanley P. Nowak

My Commission Expires: June 20, 2019



**STANLEY P. NOWAK**  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
June 20, 2019





William Francis Galvin  
Secretary of the  
Commonwealth

*The Commonwealth of Massachusetts*  
*Secretary of the Commonwealth*  
*State House, Boston, Massachusetts 02133*

Date: March 18, 2016

To Whom It May Concern :

I hereby certify that according to the records of this office,

**NORTH ATLANTIC REALTY GROUP INC.**

is a domestic corporation organized on **November 13, 2007** , under the General Laws of the Commonwealth of Massachusetts. I further certify that there are no proceedings presently pending under the Massachusetts General Laws Chapter 156D section 14.21 for said corporation's dissolution; that articles of dissolution have not been filed by said corporation; that, said corporation has filed all annual reports, and paid all fees with respect to such reports, and so far as appears of record said corporation has legal existence and is in good standing with this office.



In testimony of which,  
I have hereunto affixed the  
Great Seal of the Commonwealth  
on the date first above written.

*William Francis Galvin*

Secretary of the Commonwealth

Certificate Number: 16038401780

Verify this Certificate at: <http://corp.sec.state.ma.us/CorpWeb/Certificates/Verify.aspx>

Processed by: jmu

**BARNSTABLE REGISTRY OF DEEDS**  
**John F. Meade, Register**

Quitclaim Deed

PROPERTY ADDRESS: 103 Old Harwich Brewster Road, Harwich, MA 02645

I, Joan E. Demattos, of 103 Old Harwich Brewster Road, Harwich, MA 02645 for consideration of Three Hundred Forty-Nine Thousand and 00/100 Dollars (\$349,000.00), hereby grants to Christopher W. Our, Individually of 56 Obed Brooks Road, Harwich, MA 02645, MA 02645

With Quitclaim covenants

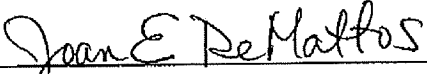
MASSACHUSETTS STATE EXCISE TAX  
BARNSTABLE COUNTY REGISTRY OF DEEDS  
Date: 11-30-2016 @ 03:27pm  
Ct1#: 1376 Doc#: 62552  
Fee: \$1,193.58 Cons: \$349,000.00

the parcel of land and buildings, together with all grants of easement rights, shown as "Jeffery Johnson, Trustee, containing 4.277 Acres" (103 Old Harwich Brewster Road), on a plan of land entitled "Plan of Land in Harwich, Massachusetts For: Douglas W. Lebel & Jeffery Johnson, Trustee, 1600 Falmouth Road, Centerville, MA 02632, dated August 8, 2000, Scale = 100', Advanced Technical Solutions, P.O. Box 99, East Sandwich, Mass.", said plan being duly recorded at Barnstable County Registry of Deeds in Plan Book 558, Page 83.

This deed releases any and all homestead rights created either automatically by operation of law or by a written declaration that is recorded. The Grantor, Joan E. Demattos, waives any and all rights of Homestead in and to the premises conveyed hereby and warrants under the pains and penalties of perjury that no other individuals are entitled to any rights of Homestead under M.G.L.c. 188 in the premises conveyed herein.

For my title see deed dated July 16, 2001 and recorded at Barnstable County Registry of Deeds in Book 14041, Page 306 and the confirmatory deed recorded in Book 12646 page 109.

WITNESS my hand and seal this 30<sup>th</sup> day of November 2016.

  
\_\_\_\_\_  
Joan E. Demattos

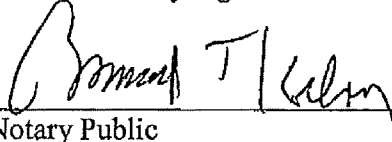
BARNSTABLE COUNTY EXCISE TAX  
BARNSTABLE COUNTY REGISTRY OF DEEDS  
Date: 11-30-2016 @ 03:27pm  
Ct1#: 1376 Doc#: 62552  
Fee: \$1,067.94 Cons: \$349,000.00

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss

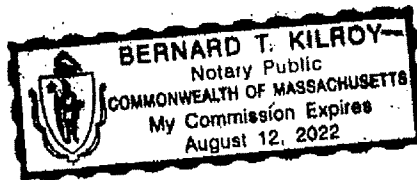
November 30, 2016

Then personally appeared before me the above-named Joan E. Denattos who proved to me through satisfactory evidence of identification, which was A MASSACHUSETTS DRIVER'S LICENSE, to be the person who signed the preceding or attached document in my presence, and who swore or affirmed to me that the contents of the document were voluntarily signed and are truthful and accurate to the best of her knowledge and belief.



Notary Public

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



g\deeds\103 old Harwich Brewster road

**BARNSTABLE REGISTRY OF DEEDS**  
John F. Meade, Register

Quitclaim Deed

PROPERTY ADDRESS: 105 Old Harwich Brewster Road, Harwich, MA 02645

I, Paul DeMattos, Trustee of the DeMattos Family Trust u/d/t dated July 26, 2001 recorded in Book 14102 Page 250 of 105 Old Harwich Brewster Road, Harwich, MA for consideration of One Thousand Dollars (\$1,000.00), hereby grant to Bryan Blanchard, Individually of 2 Skipper Shea Lane, Harwich, MA 02645

MASSACHUSETTS STATE EXCISE TAX  
BARNSTABLE COUNTY REGISTRY OF DEEDS  
Date: 11-30-2016 @ 03:27pm  
Ct1#: 1374 Doc#: 62550  
Fee: \$3.42 Cons: \$1,000.00

With Quitclaim Covenants

the parcel of land together with all easement rights described as "Douglas W. Lebel, containing 3.376 Acres" (105 Old Harwich Brewster Road) on a plan of land entitled "Plan of Land in Harwich, Massachusetts For: Douglas W. Lebel & Jeffery Johnson, Trustee, 1600 Falmouth Road, Centerville, MA 02632, dated August 8, 2000, Scale = 100', Advanced Technical Solutions, P.O. Box 99, East Sandwich, Mass.", said plan being duly recorded at Barnstable County Registry of Deeds in Plan Book 558, Page 83.

BARNSTABLE COUNTY EXCISE TAX  
BARNSTABLE COUNTY REGISTRY OF DEEDS  
Date: 11-30-2016 @ 03:27pm  
Ct1#: 1374 Doc#: 62550  
Fee: \$3.06 Cons: \$1,000.00

I further certify as follows:

- 1) I am the sole trustee;
- 2) The Declaration of Trust has not been altered, modified, amended or terminated since its recording, except as may already appear of record at said Registry of Deeds;
- 3) No beneficiary is a minor, incompetent, a corporation selling all or substantially all of its assets, or a personal representative of an estate subject to tax liens;
- 4) The beneficiaries of the Trust have authorized and directed the Trustee to execute this instrument.

This deed releases any and all homestead rights created either automatically by operation of law or by a written declaration that is recorded. The Grantor waives any and all rights of Homestead in and to the premises conveyed hereby and warrants under the pains and penalties of perjury that no other individuals are entitled to any rights of Homestead under M.G.L.c. 188 in the premises conveyed herein.

For my title see deed dated December 4, 2001 in Book 14533 Page 40.

WITNESS my hand and seal this 30 day of November 2016.

DEMATTOS FAMILY TRUST



By: Paul DeMattos, Trustee

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss

November 30, 2016

Then personally appeared before me the above-named Paul DeMattos, TRUSTEE OF DEMATTOS FAMILY TRUST, who ~~proved to me through satisfactory evidence of identification, which was~~ is known to me, to be the person who signed the preceding or attached document in my presence, and who swore or affirmed to me that the contents of the document were voluntarily signed and are truthful and accurate to the best of his knowledge and belief.



Notary Public  
My commission expires: \_\_\_\_\_



JEFFERY JOHNSON  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
November 10, 2017

State Tax Form 290  
 Certificate: 64  
 Issuance Date: 08/05/2022

MUNICIPAL LIEN CERTIFICATE  
 TOWN OF HARWICH - LIVE DATA  
 COMMONWEALTH OF MASSACHUSETTS

Requested by DOWN CAPE ENGINEERING, INC.

I certify from available information that all taxes, assessments and charges now payable that constitute liens as of the date of this certificate on the parcel of real estate specified in your application received on 08/04/2022 are listed below.

DESCRIPTION OF PROPERTY

Parcel ID: 77/C22-R

LITTLEFIELD POND RD

HYBRID BUILT HOME LLC  
 76 KILBY ST  
 HINGHAM MA 02043

Land area : 0.27 AC  
 Land Value : 3,300  
 Impr Value : 0  
 Land Use : 0  
 Exemptions : 0  
 Taxable Value: 3,300

Deed date: 03/23/2016 Book/Page: 29526/215  
 Class: 1320-GENL

FISCAL YEAR	2023	2022	2021
DESCRIPTION			
COMMUNITY PRESERVATION ACT	\$ .40	\$ .80	\$ .00
REAL ESTATE TAX	\$13.38	\$26.76	\$ .00
TOTAL BILLED:	\$13.78	\$27.56	\$ .00
Charges/Fees	\$ .00	\$30.00	\$ .00
Abatements/Exemptions	\$ .00	\$ .00	\$ .00
Payments/Credits	\$ .00	-\$13.24	\$ .00
Interest to 08/05/2022	\$ .02	\$1.02	\$ .00
TOTAL BALANCE DUE:	\$13.80	\$45.34	\$ .00

NOTE: Actual 2023 taxes not yet issued.

TOTAL TAX INTEREST PER DIEM: \$ .0108

IF CHECKED, contact Treasurer's Office at 508-430-7501 for update

- This property is in TAX TITLE.
- This property has a BETTERMENT.
- This property has a DEFERRAL.
- This property is currently EXEMPT.

*Amy Bullock*

AMY BULLOCK  
 TOWN COLLECTOR/TREASURER

THIS FORM APPROVED BY THE COMMISSIONER OF REVENUE

State Tax Form 290  
 Certificate: 62  
 Issuance Date: 08/05/2022

MUNICIPAL LIEN CERTIFICATE  
 TOWN OF HARWICH - LIVE DATA  
 COMMONWEALTH OF MASSACHUSETTS

Requested by DOWN CAPE ENGINEERING, INC.

I certify from available information that all taxes, assessments and charges now payable that constitute liens as of the date of this certificate on the parcel of real estate specified in your application received on 08/04/2022 are listed below.

DESCRIPTION OF PROPERTY

Parcel ID: 77/C20-R

11 LITTLEFIELD POND RD

HYBRID BUILT HOME LLC  
 76 KILBY ST  
 HINGHAM MA 02043

Land area : 2.85 AC  
 Land Value : 170,000  
 Impr Value : 0  
 Land Use : 0  
 Exemptions : 0  
 Taxable Value: 170,000

Deed date: 03/23/2016 Book/Page: 29526/215  
 Class: 1300-GENL

FISCAL YEAR	2023	2022	2021
DESCRIPTION			
COMMUNITY PRESERVATION ACT	\$20.68	\$41.36	\$ .00
REAL ESTATE TAX	\$689.35	\$1,378.70	\$ .00
<b>TOTAL BILLED:</b>	<b>\$710.03</b>	<b>\$1,420.06</b>	<b>\$ .00</b>
Charges/Fees	\$ .00	\$30.00	\$ .00
Abatements/Exemptions	\$ .00	\$ .00	\$ .00
Payments/Credits	\$ .00	-\$341.52	\$ .00
Interest to 08/05/2022	\$ .55	\$75.39	\$ .00
<b>TOTAL BALANCE DUE:</b>	<b>\$710.58</b>	<b>\$1,183.93</b>	<b>\$ .00</b>

NOTE: Actual 2023 taxes not yet issued.

TOTAL TAX INTEREST PER DIEM: \$.5498

IF CHECKED, contact Treasurer's Office at 508-430-7501 for update

- This property is in TAX TITLE.
- This property has a BETTERMENT.
- This property has a DEFERRAL.
- This property is currently EXEMPT.

*Amy Bullock*

AMY BULLOCK  
 TOWN COLLECTOR/TREASURER

THIS FORM APPROVED BY THE COMMISSIONER OF REVENUE

State Tax Form 290  
 Certificate: 65  
 Issuance Date: 08/05/2022

MUNICIPAL LIEN CERTIFICATE  
 TOWN OF HARWICH - LIVE DATA  
 COMMONWEALTH OF MASSACHUSETTS

Requested by DOWN CAPE ENGINEERING, INC.

I certify from available information that all taxes, assessments and charges now payable that constitute liens as of the date of this certificate on the parcel of real estate specified in your application received on 08/04/2022 are listed below.

DESCRIPTION OF PROPERTY

Parcel ID: 65/R2-R

103 OLD HARWICH BREWSTER RD

OUR CHRISTOPHER W  
 56 OBED BROOKS RD  
 HARWICH MA 02645

Land area : 1.55 AC  
 Land Value : 154,000  
 Impr Value : 229,500  
 Land Use : 0  
 Exemptions : 0  
 Taxable Value: 383,500

Deed date: 11/30/2016 Book/Page: 30127/311  
 Class: 1010-GENL

FISCAL YEAR	2023	2022	2021
DESCRIPTION			
COMMUNITY PRESERVATION ACT	\$50.75	\$101.50	\$97.09
REAL ESTATE TAX	\$1,691.75	\$3,383.49	\$3,236.18
TOTAL BILLED:	\$1,742.50	\$3,484.99	\$3,333.27
Charges/Fees	\$ .00	\$ .00	\$ .00
Abatements/Exemptions	\$ .00	\$ .00	\$ .00
Payments/Credits	-\$871.25	-\$3,484.99	-\$3,333.27
Interest to 08/05/2022	\$ .00	\$ .00	\$ .00
TOTAL BALANCE DUE:	\$871.25	\$ .00	\$ .00

NOTE: Actual 2023 taxes not yet issued.

- IF CHECKED, contact Treasurer's Office at 508-430-7501 for update
- This property is in TAX TITLE.
  - This property has a BETTERMENT.
  - This property has a DEFERRAL.
  - This property is currently EXEMPT.

*Amy Bullock*  
 AMY BULLOCK  
 TOWN COLLECTOR/TREASURER

THIS FORM APPROVED BY THE COMMISSIONER OF REVENUE



State Tax Form 290  
 Certificate: 63  
 Issuance Date: 08/05/2022

MUNICIPAL LIEN CERTIFICATE  
 TOWN OF HARWICH - LIVE DATA  
 COMMONWEALTH OF MASSACHUSETTS

Requested by DOWN CAPE ENGINEERING, INC.

I certify from available information that all taxes, assessments and charges now payable that constitute liens as of the date of this certificate on the parcel of real estate specified in your application received on 08/04/2022 are listed below.

DESCRIPTION OF PROPERTY

Parcel ID: 65/R3-R

105 OLD HARWICH BREWSTER RD

BLANCHARD BRYAN  
 2 SKIPPER SHEA LN  
 HARWICH MA 02645

Land area : 2.31 AC  
 Land Value : 104,900  
 Impr Value : 0  
 Land Use : 0  
 Exemptions : 0  
 Taxable Value: 104,900

Deed date: 11/30/2016 Book/Page: 30127/308  
 Class: 1300-GENL

FISCAL YEAR	2023	2022	2021
DESCRIPTION			
COMMUNITY PRESERVATION ACT	\$21.49	\$42.97	\$41.43
REAL ESTATE TAX	\$716.12	\$1,432.23	\$1,381.16
TOTAL BILLED:	\$737.61	\$1,475.20	\$1,422.59
Charges/Fees	\$ .00	\$ .00	\$ .00
Abatements/Exemptions	\$ .00	\$ .00	\$ .00
Payments/Credits	-\$368.81	-\$1,475.20	-\$1,422.59
Interest to 08/05/2022	\$ .00	\$ .00	\$ .00
TOTAL BALANCE DUE:	\$368.80	\$ .00	\$ .00

NOTE: Actual 2023 taxes not yet issued.

- IF CHECKED, contact Treasurer's Office at 508-430-7501 for update
- This property is in TAX TITLE.
  - This property has a BETTERMENT.
  - This property has a DEFERRAL.
  - This property is currently EXEMPT.

*Amy Bullock*  
 \_\_\_\_\_  
 AMY BULLOCK  
 TOWN COLLECTOR/TREASURER

THIS FORM APPROVED BY THE COMMISSIONER OF REVENUE



# TOWN OF HARWICH

## BOARD OF HEALTH

732 Main Street • Harwich, MA 02645

508-430-7509 • Fax 508-430-7531

E-mail: [health@town.harwich.ma.us](mailto:health@town.harwich.ma.us)

**COPY**

July 17, 2019

Hybrid Built Home, LLC  
76 Kilby Street  
Hingham, MA 02043



**RE: 7 Lot Preliminary Subdivision Plan  
Off Littlefield Pond Road**

At a meeting of the Board of Health on July 9, 2019, a discussion took place regarding a request to consider a 7 lot preliminary subdivision plan prepared by Down Cape Engineering, Inc., dated June 10, 2019. The Board unanimously voted to approve the preliminary subdivision plan request with the following conditions:

1. The Harwich Board of Health will not consider any variances from Title 5 or Harwich Board of Health Regulations for any of the lots.
2. The lots are restricted to one bedroom per 10,000 square feet.
3. The subdivision will be served by town water.

Sincerely,

Meggan Eldredge, R.S., C.H.O.  
Health Director

CC: Down Cape Engineering, 939 Route 6a, Yarmouthport, MA 02675 X  
Christopher W. Our, 56 Obed Brooks Road, Harwich, MA 02645  
Janet Shea Our, 56 Obed Brooks Road, Harwich, MA 02645  
Bryan Blanchard, 23 Skipper Shea Lane, Harwich, MA 02645  
Scott Owen Our, 101 Lovers Lane, Harwich, MA 02645  
Planning Board



down cape engineering, inc.

CIVIL ENGINEERS & LAND SURVEYORS

939 MAIN ST / ROUTE 6A YARMOUTHPORT, MA 02675

(508) 362-4541 FAX (508) 362-9880

# DRAINAGE CALCULATIONS:

Fish & Game Drive and Wildlife Circle  
Proposed Subdivision  
Harwich, MA

DATE: 9-16-2022

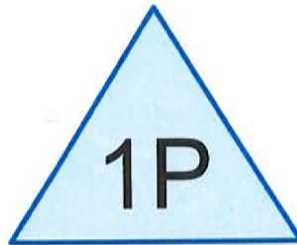
PREPARED FOR: Chris Our



Drainage Area DA1



*D. Ojala*  
9-16-22



Drainage Infiltration  
Model



**17-198 RBOUR SUB DA1**

Prepared by down cape engineering, inc.

**Rainfall Events Listing (selected events)**

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	Barn Cty 10 Yr	Type III 24-hr		Default	24.00	1	4.95	2
2	Barn Cty 2 Yr	Type III 24-hr		Default	24.00	1	3.39	2
3	Barn Cty 25 Yr	Type III 24-hr		Default	24.00	1	5.92	2
4	Barn Cty 50 yr.	Type III 24-hr		Default	24.00	1	6.65	2

**17-198 RBOUR SUB DA1**

Prepared by down cape engineering, inc.

**Area Listing (all nodes)**

Area (sq-ft)	CN	Description (subcatchment-numbers)
49,364	98	Pavement and front Roof Area (1S)
116,801	32	Woods/grass comb., Good, HSG A (1S)
<b>166,165</b>	<b>52</b>	<b>TOTAL AREA</b>

**17-198 RBOUR SUB DA1**

Prepared by down cape engineering, inc.

**Soil Listing (all nodes)**

Area (sq-ft)	Soil Group	Subcatchment Numbers
116,801	HSG A	1S
0	HSG B	
0	HSG C	
0	HSG D	
49,364	Other	1S
<b>166,165</b>		<b>TOTAL AREA</b>

**17-198 RBOUR SUB DA1**

Prepared by down cape engineering, inc.

**Ground Covers (all nodes)**

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	0	0	49,364	49,364	Pavement and front Roof Area
116,801	0	0	0	0	116,801	Woods/grass comb., Good
<b>116,801</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49,364</b>	<b>166,165</b>	<b>TOTAL AREA</b>





### Summary for Subcatchment 1S: Drainage Area DA1

Time of Concentration

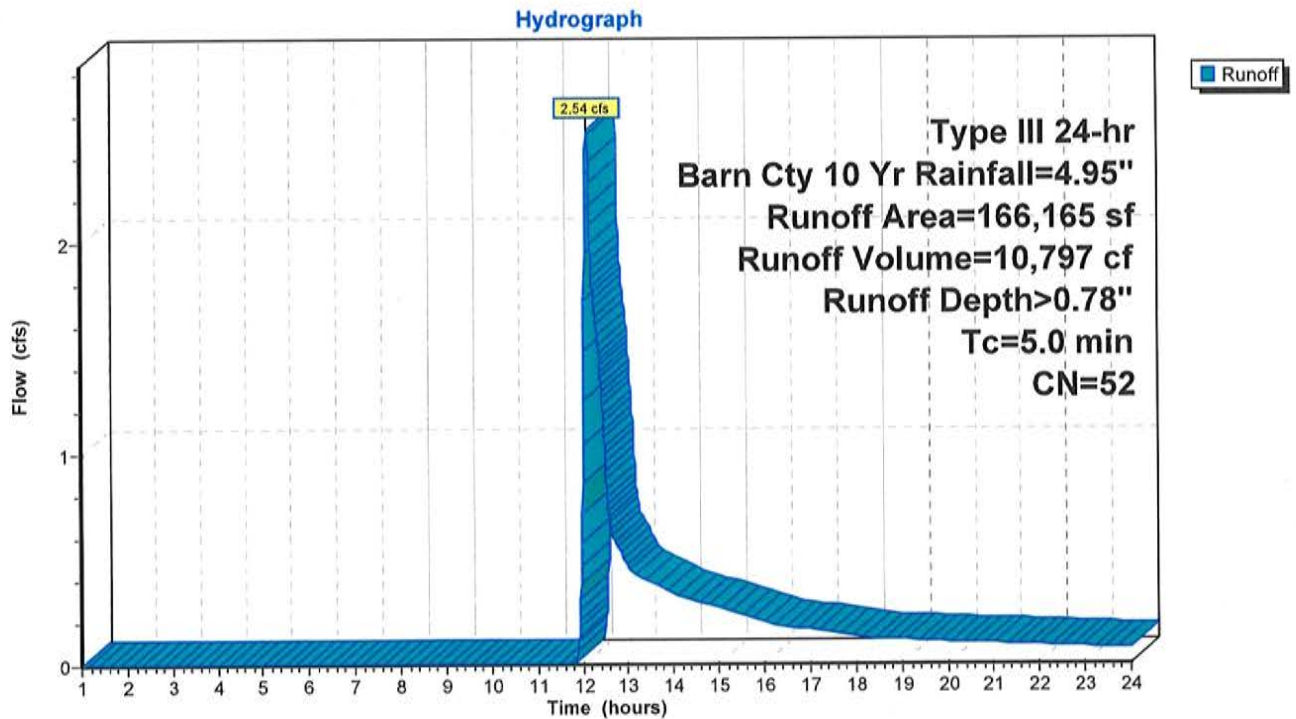
Runoff = 2.54 cfs @ 12.10 hrs, Volume= 10,797 cf, Depth> 0.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs  
 Type III 24-hr Barn Cty 10 Yr Rainfall=4.95"

Area (sf)	CN	Description
116,801	32	Woods/grass comb., Good, HSG A
* 49,364	98	Pavement and front Roof Area
166,165	52	Weighted Average
116,801		70.29% Pervious Area
49,364		29.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Time Concentration

### Subcatchment 1S: Drainage Area DA1



**Summary for Pond 1P: Drainage Infiltration Model**

3 Leach pits with overflow to low area- Storage/Infiltration Model

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 166,165 sf, 29.71% Impervious, Inflow Depth > 0.78" for Barn Cty 10 Yr event  
 Inflow = 2.54 cfs @ 12.10 hrs, Volume= 10,797 cf  
 Outflow = 1.52 cfs @ 12.33 hrs, Volume= 10,751 cf, Atten= 40%, Lag= 13.8 min  
 Primary = 1.52 cfs @ 12.33 hrs, Volume= 10,751 cf

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 36.20' @ 12.33 hrs Storage= 912 cf

Plug-Flow detention time= 9.3 min calculated for 10,746 cf (100% of inflow)  
 Center-of-Mass det. time= 7.1 min ( 911.6 - 904.5 )

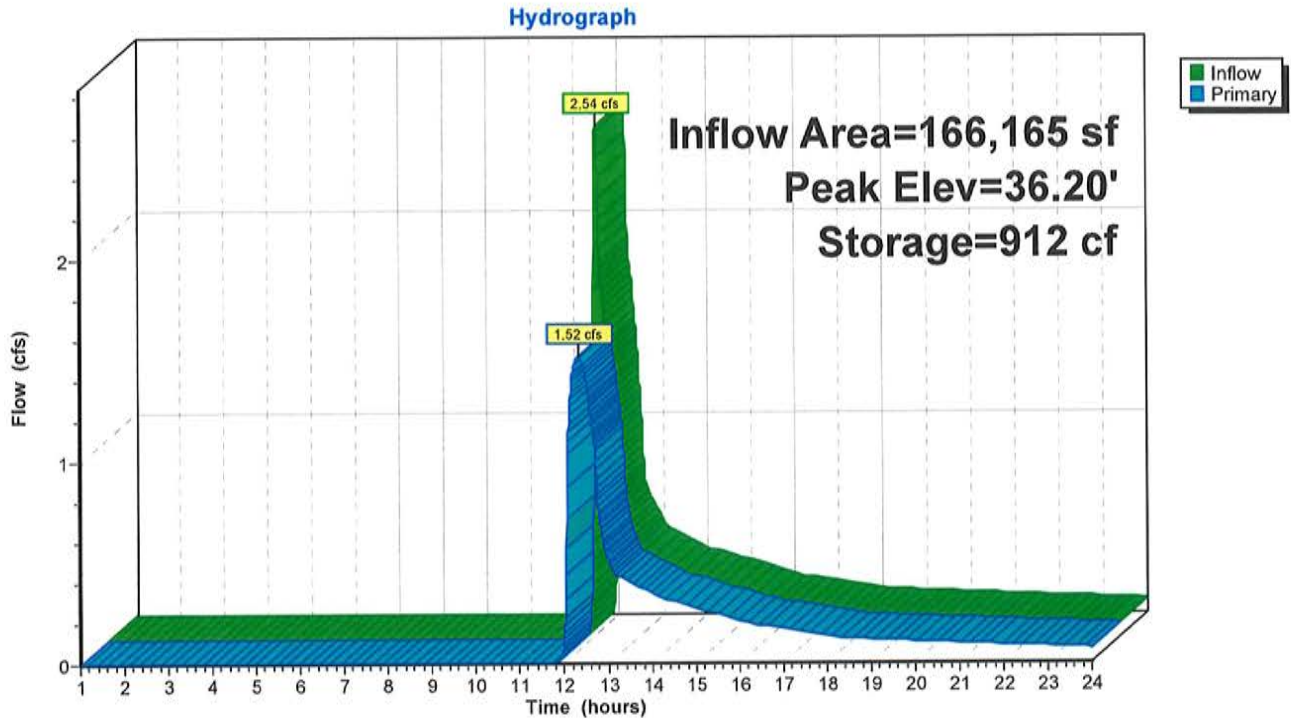
Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	5,894 cf	<b>Infiltration System Storage Mode</b> Listed below

Elevation (feet)	Cum.Store (cubic-feet)
32.00	0
33.00	157
34.00	393
35.00	629
36.00	864
37.00	1,100
38.00	1,335
39.00	1,571
40.00	2,742
42.00	5,894

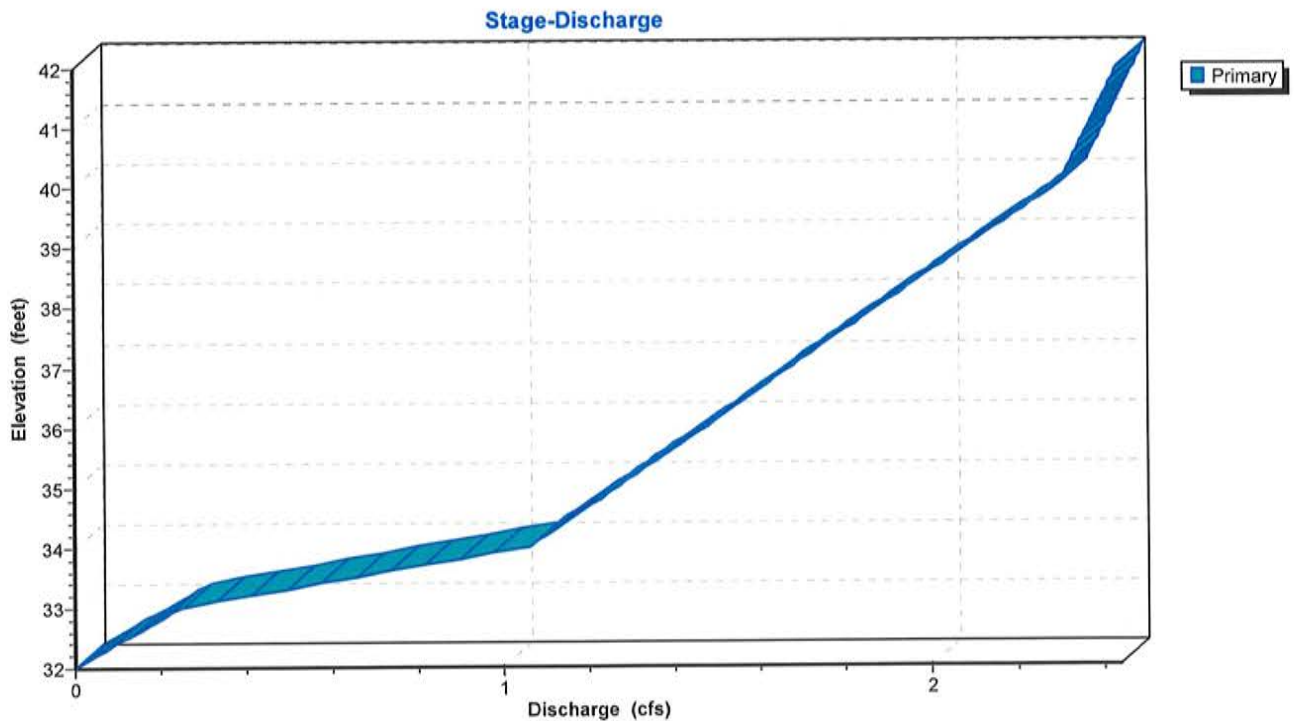
Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	<b>Infiltration Model</b>
			Elev. (feet) 0.00 32.00 33.00 34.00 35.00 36.00 37.00 39.00 40.00 42.00
			Disch. (cfs) 0.000 0.000 0.250 1.060 1.270 1.480 1.680 2.090 2.300 2.440

**Primary OutFlow** Max=1.52 cfs @ 12.33 hrs HW=36.20' (Free Discharge)  
 ↖1=Infiltration Model (Custom Controls 1.52 cfs)

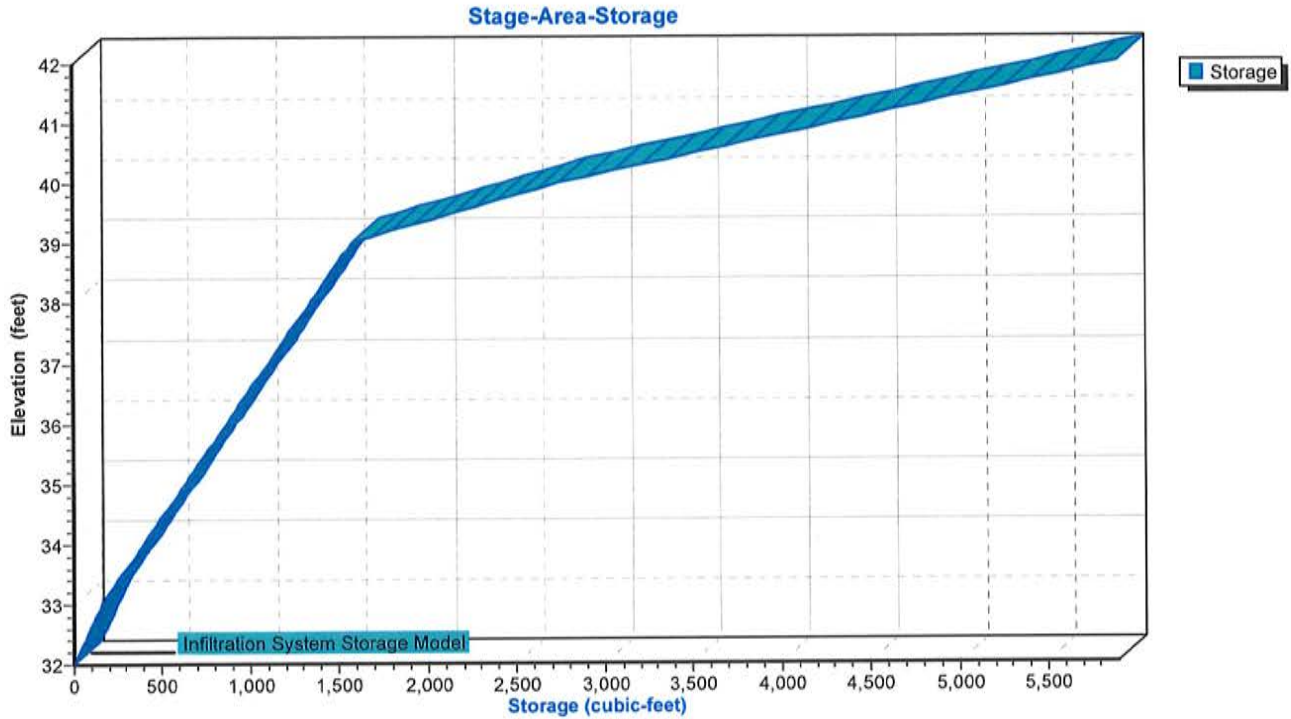
### Pond 1P: Drainage Infiltration Model



### Pond 1P: Drainage Infiltration Model



### Pond 1P: Drainage Infiltration Model



**Stage-Discharge for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
32.00	0.00	37.10	1.70
32.10	0.03	37.20	1.72
32.20	0.05	37.30	1.74
32.30	0.07	37.40	1.76
32.40	0.10	37.50	1.78
32.50	0.13	37.60	1.80
32.60	0.15	37.70	1.82
32.70	0.18	37.80	1.84
32.80	0.20	37.90	1.86
32.90	0.22	38.00	1.88
33.00	0.25	38.10	1.91
33.10	0.33	38.20	1.93
33.20	0.41	38.30	1.95
33.30	0.49	38.40	1.97
33.40	0.57	38.50	1.99
33.50	0.66	38.60	2.01
33.60	0.74	38.70	2.03
33.70	0.82	38.80	2.05
33.80	0.90	38.90	2.07
33.90	0.98	39.00	2.09
34.00	1.06	39.10	2.11
34.10	1.08	39.20	2.13
34.20	1.10	39.30	2.15
34.30	1.12	39.40	2.17
34.40	1.14	39.50	2.20
34.50	1.17	39.60	2.22
34.60	1.19	39.70	2.24
34.70	1.21	39.80	2.26
34.80	1.23	39.90	2.28
34.90	1.25	40.00	2.30
35.00	1.27	40.10	2.31
35.10	1.29	40.20	2.31
35.20	1.31	40.30	2.32
35.30	1.33	40.40	2.33
35.40	1.35	40.50	2.33
35.50	1.38	40.60	2.34
35.60	1.40	40.70	2.35
35.70	1.42	40.80	2.36
35.80	1.44	40.90	2.36
35.90	1.46	41.00	2.37
36.00	1.48	41.10	2.38
36.10	1.50	41.20	2.38
36.20	1.52	41.30	2.39
36.30	1.54	41.40	2.40
36.40	1.56	41.50	2.41
36.50	1.58	41.60	2.41
36.60	1.60	41.70	2.42
36.70	1.62	41.80	2.43
36.80	1.64	41.90	2.43
36.90	1.66	42.00	<b>2.44</b>
37.00	1.68		

**Stage-Area-Storage for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
32.00	0	37.10	1,124
32.10	16	37.20	1,147
32.20	31	37.30	1,170
32.30	47	37.40	1,194
32.40	63	37.50	1,218
32.50	79	37.60	1,241
32.60	94	37.70	1,265
32.70	110	37.80	1,288
32.80	126	37.90	1,311
32.90	141	38.00	1,335
33.00	157	38.10	1,359
33.10	181	38.20	1,382
33.20	204	38.30	1,406
33.30	228	38.40	1,429
33.40	251	38.50	1,453
33.50	275	38.60	1,477
33.60	299	38.70	1,500
33.70	322	38.80	1,524
33.80	346	38.90	1,547
33.90	369	39.00	1,571
34.00	393	39.10	1,688
34.10	417	39.20	1,805
34.20	440	39.30	1,922
34.30	464	39.40	2,039
34.40	487	39.50	2,157
34.50	511	39.60	2,274
34.60	535	39.70	2,391
34.70	558	39.80	2,508
34.80	582	39.90	2,625
34.90	605	40.00	2,742
35.00	629	40.10	2,900
35.10	653	40.20	3,057
35.20	676	40.30	3,215
35.30	699	40.40	3,372
35.40	723	40.50	3,530
35.50	747	40.60	3,688
35.60	770	40.70	3,845
35.70	794	40.80	4,003
35.80	817	40.90	4,160
35.90	840	41.00	4,318
36.00	864	41.10	4,476
36.10	888	41.20	4,633
36.20	911	41.30	4,791
36.30	935	41.40	4,948
36.40	958	41.50	5,106
36.50	982	41.60	5,264
36.60	1,006	41.70	5,421
36.70	1,029	41.80	5,579
36.80	1,053	41.90	5,736
36.90	1,076	42.00	<b>5,894</b>
37.00	1,100		

Time span=1.00-24.00 hrs, dt=0.01 hrs, 2301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment1S: Drainage Area DA1** Runoff Area=166,165 sf 29.71% Impervious Runoff Depth>0.22"  
Tc=5.0 min CN=52 Runoff=0.30 cfs 3,055 cf

**Pond 1P: Drainage Infiltration Model** Peak Elev=32.95' Storage=150 cf Inflow=0.30 cfs 3,055 cf  
Outflow=0.24 cfs 3,036 cf

**Total Runoff Area = 166,165 sf Runoff Volume = 3,055 cf Average Runoff Depth = 0.22"**  
**70.29% Pervious = 116,801 sf 29.71% Impervious = 49,364 sf**



**17-198 RBOUR SUB DA1**

Type III 24-hr Barn Cty 2 Yr Rainfall=3.39"

Prepared by down cape engineering, inc.

**Summary for Subcatchment 1S: Drainage Area DA1**

Time of Concentration

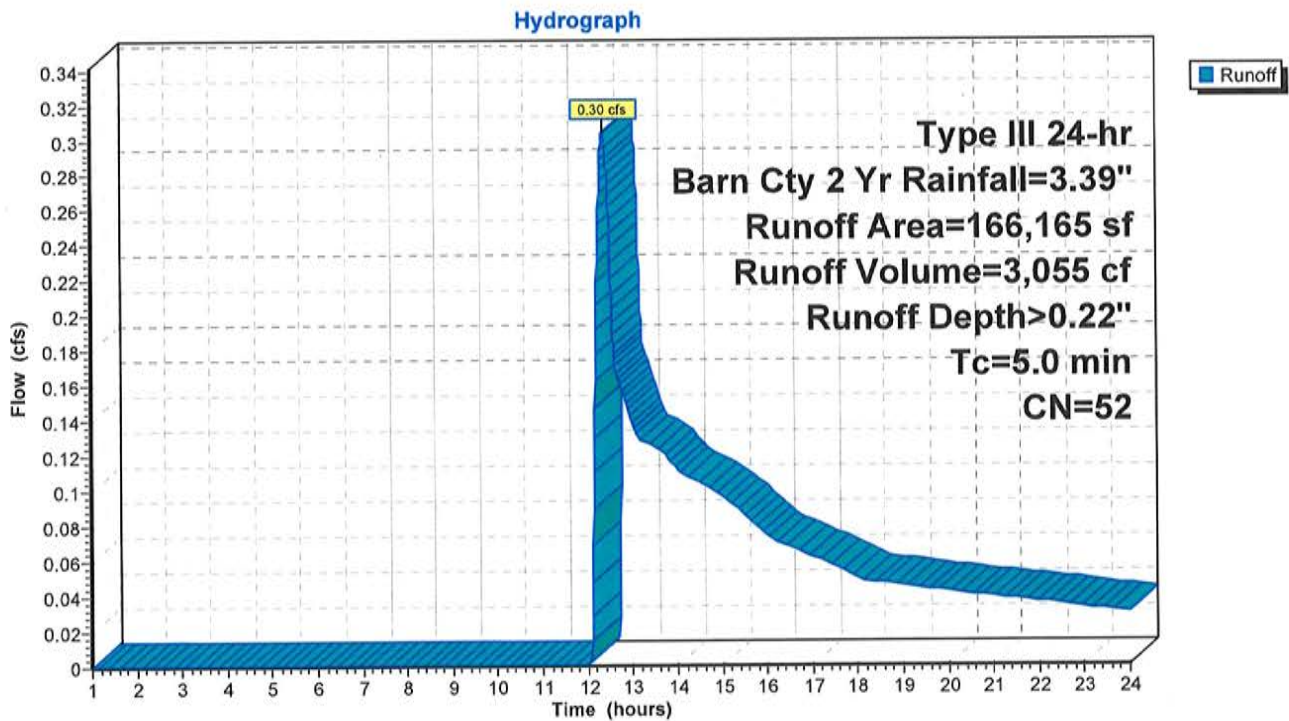
Runoff = 0.30 cfs @ 12.35 hrs, Volume= 3,055 cf, Depth> 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs  
 Type III 24-hr Barn Cty 2 Yr Rainfall=3.39"

Area (sf)	CN	Description
116,801	32	Woods/grass comb., Good, HSG A
* 49,364	98	Pavement and front Roof Area
166,165	52	Weighted Average
116,801		70.29% Pervious Area
49,364		29.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Time Concentration

**Subcatchment 1S: Drainage Area DA1**



**Summary for Pond 1P: Drainage Infiltration Model**

3 Leach pits with overflow to low area- Storage/Infiltration Model

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 166,165 sf, 29.71% Impervious, Inflow Depth > 0.22" for Barn Cty 2 Yr event  
 Inflow = 0.30 cfs @ 12.35 hrs, Volume= 3,055 cf  
 Outflow = 0.24 cfs @ 12.50 hrs, Volume= 3,036 cf, Atten= 22%, Lag= 8.8 min  
 Primary = 0.24 cfs @ 12.50 hrs, Volume= 3,036 cf

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 32.95' @ 12.50 hrs Storage= 150 cf

Plug-Flow detention time= 10.4 min calculated for 3,035 cf (99% of inflow)  
 Center-of-Mass det. time= 7.5 min ( 975.0 - 967.5 )

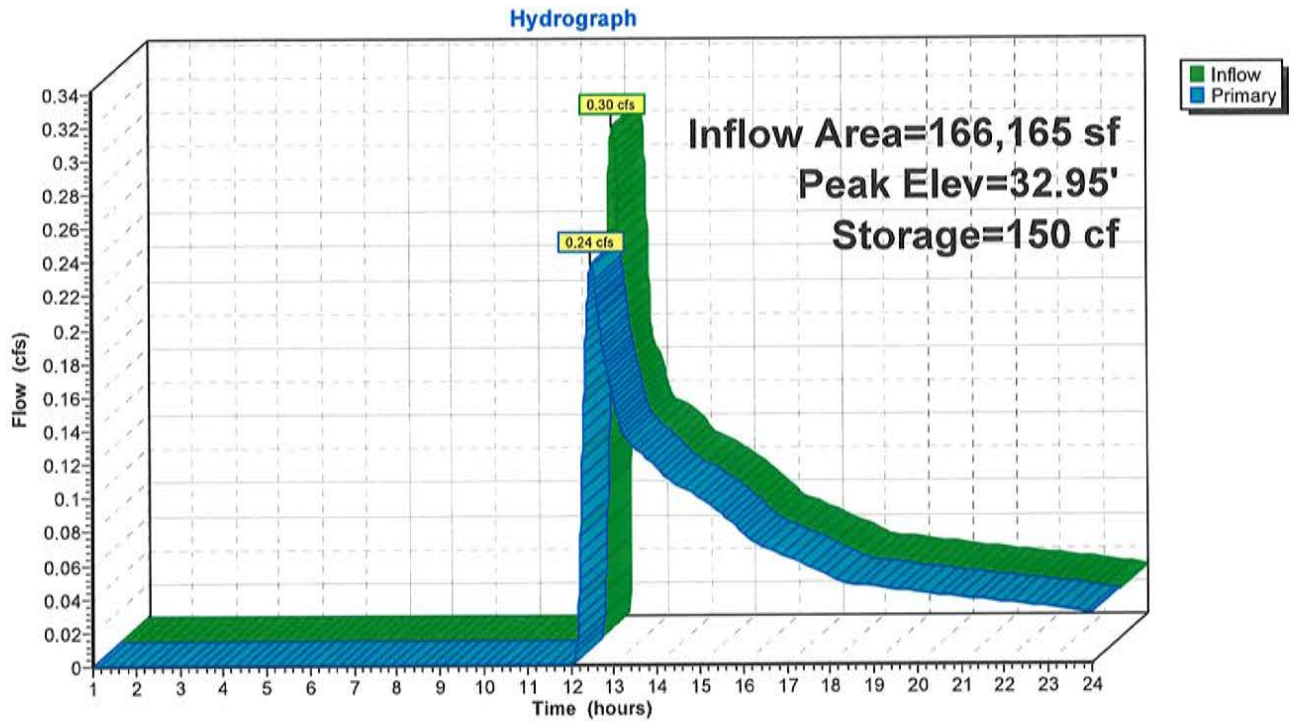
Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	5,894 cf	<b>Infiltration System Storage Mode</b> Listed below

Elevation (feet)	Cum.Store (cubic-feet)
32.00	0
33.00	157
34.00	393
35.00	629
36.00	864
37.00	1,100
38.00	1,335
39.00	1,571
40.00	2,742
42.00	5,894

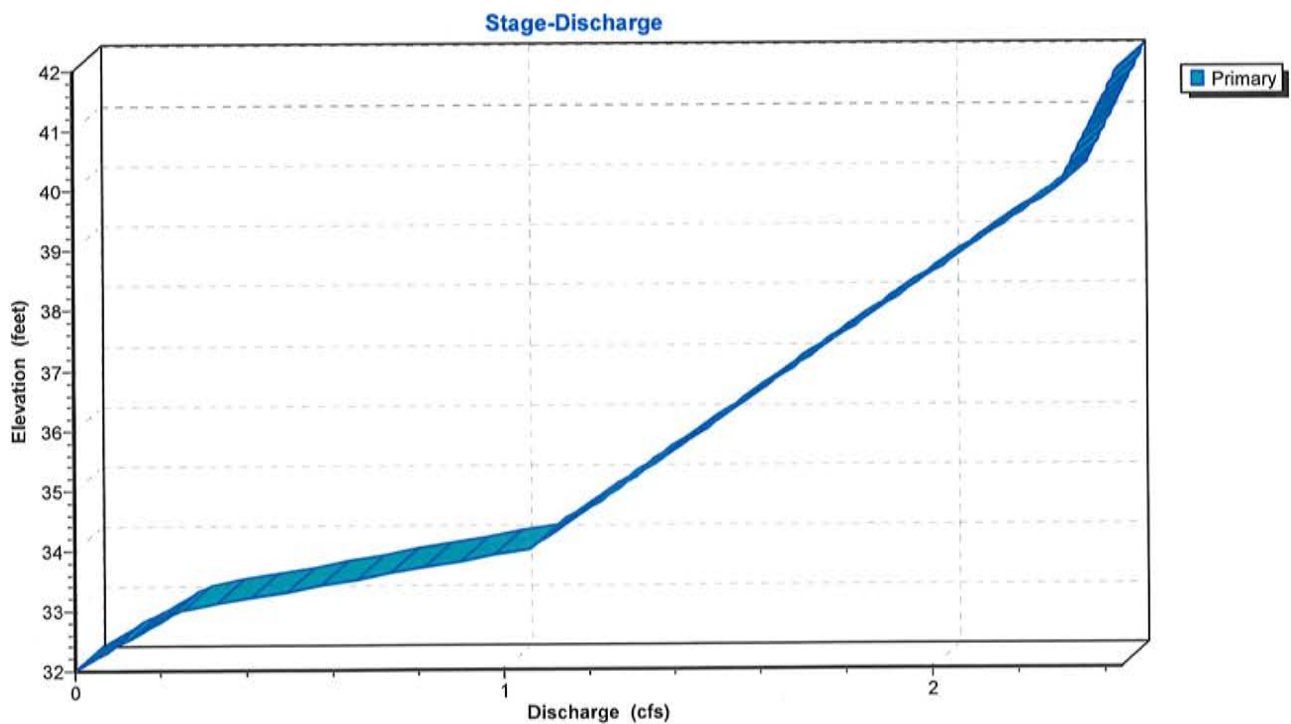
Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	<b>Infiltration Model</b>
			Elev. (feet) 0.00 32.00 33.00 34.00 35.00 36.00 37.00 39.00 40.00 42.00
			Disch. (cfs) 0.000 0.000 0.250 1.060 1.270 1.480 1.680 2.090 2.300 2.440

**Primary OutFlow** Max=0.24 cfs @ 12.50 hrs HW=32.95' (Free Discharge)  
 ↑1=Infiltration Model (Custom Controls 0.24 cfs)

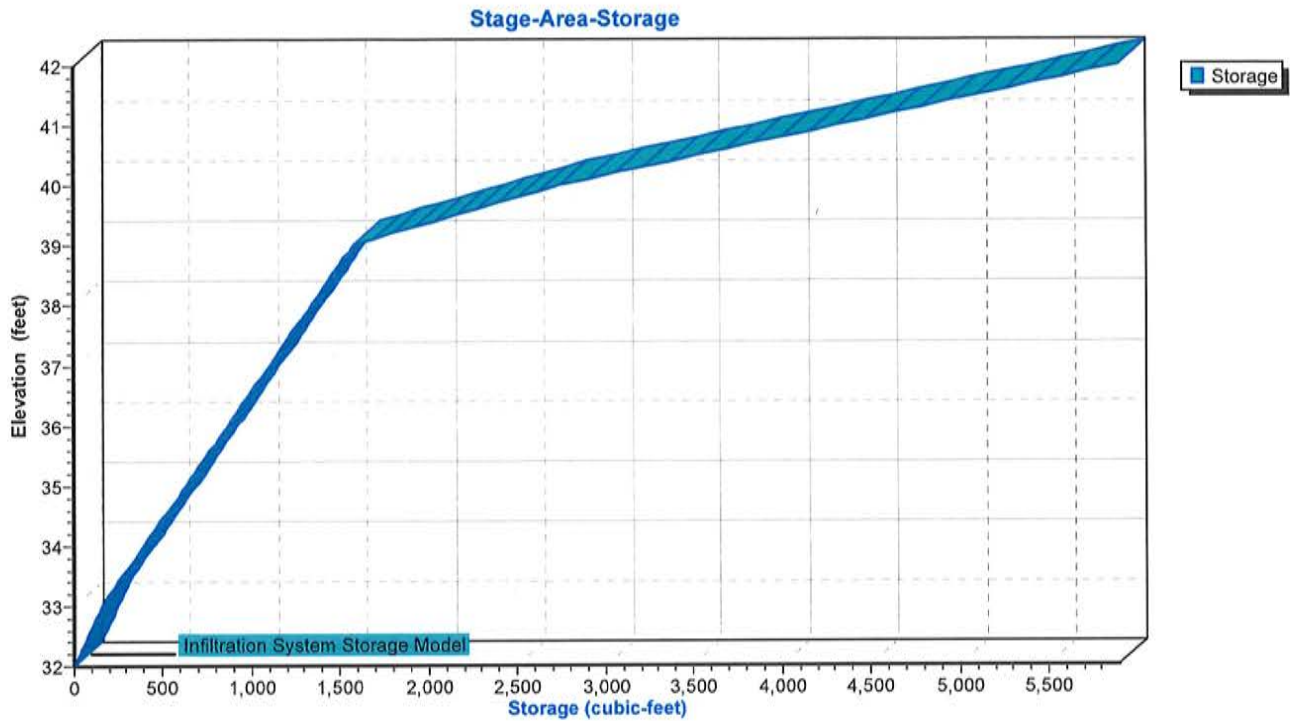
### Pond 1P: Drainage Infiltration Model



### Pond 1P: Drainage Infiltration Model



### Pond 1P: Drainage Infiltration Model



**Stage-Discharge for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
32.00	0.00	37.10	1.70
32.10	0.03	37.20	1.72
32.20	0.05	37.30	1.74
32.30	0.07	37.40	1.76
32.40	0.10	37.50	1.78
32.50	0.13	37.60	1.80
32.60	0.15	37.70	1.82
32.70	0.18	37.80	1.84
32.80	0.20	37.90	1.86
32.90	0.22	38.00	1.88
33.00	0.25	38.10	1.91
33.10	0.33	38.20	1.93
33.20	0.41	38.30	1.95
33.30	0.49	38.40	1.97
33.40	0.57	38.50	1.99
33.50	0.66	38.60	2.01
33.60	0.74	38.70	2.03
33.70	0.82	38.80	2.05
33.80	0.90	38.90	2.07
33.90	0.98	39.00	2.09
34.00	1.06	39.10	2.11
34.10	1.08	39.20	2.13
34.20	1.10	39.30	2.15
34.30	1.12	39.40	2.17
34.40	1.14	39.50	2.20
34.50	1.17	39.60	2.22
34.60	1.19	39.70	2.24
34.70	1.21	39.80	2.26
34.80	1.23	39.90	2.28
34.90	1.25	40.00	2.30
35.00	1.27	40.10	2.31
35.10	1.29	40.20	2.31
35.20	1.31	40.30	2.32
35.30	1.33	40.40	2.33
35.40	1.35	40.50	2.33
35.50	1.38	40.60	2.34
35.60	1.40	40.70	2.35
35.70	1.42	40.80	2.36
35.80	1.44	40.90	2.36
35.90	1.46	41.00	2.37
36.00	1.48	41.10	2.38
36.10	1.50	41.20	2.38
36.20	1.52	41.30	2.39
36.30	1.54	41.40	2.40
36.40	1.56	41.50	2.41
36.50	1.58	41.60	2.41
36.60	1.60	41.70	2.42
36.70	1.62	41.80	2.43
36.80	1.64	41.90	2.43
36.90	1.66	42.00	<b>2.44</b>
37.00	1.68		

**Stage-Area-Storage for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
32.00	0	37.10	1,124
32.10	16	37.20	1,147
32.20	31	37.30	1,170
32.30	47	37.40	1,194
32.40	63	37.50	1,218
32.50	79	37.60	1,241
32.60	94	37.70	1,265
32.70	110	37.80	1,288
32.80	126	37.90	1,311
32.90	141	38.00	1,335
33.00	157	38.10	1,359
33.10	181	38.20	1,382
33.20	204	38.30	1,406
33.30	228	38.40	1,429
33.40	251	38.50	1,453
33.50	275	38.60	1,477
33.60	299	38.70	1,500
33.70	322	38.80	1,524
33.80	346	38.90	1,547
33.90	369	39.00	1,571
34.00	393	39.10	1,688
34.10	417	39.20	1,805
34.20	440	39.30	1,922
34.30	464	39.40	2,039
34.40	487	39.50	2,157
34.50	511	39.60	2,274
34.60	535	39.70	2,391
34.70	558	39.80	2,508
34.80	582	39.90	2,625
34.90	605	40.00	2,742
35.00	629	40.10	2,900
35.10	653	40.20	3,057
35.20	676	40.30	3,215
35.30	699	40.40	3,372
35.40	723	40.50	3,530
35.50	747	40.60	3,688
35.60	770	40.70	3,845
35.70	794	40.80	4,003
35.80	817	40.90	4,160
35.90	840	41.00	4,318
36.00	864	41.10	4,476
36.10	888	41.20	4,633
36.20	911	41.30	4,791
36.30	935	41.40	4,948
36.40	958	41.50	5,106
36.50	982	41.60	5,264
36.60	1,006	41.70	5,421
36.70	1,029	41.80	5,579
36.80	1,053	41.90	5,736
36.90	1,076	42.00	<b>5,894</b>
37.00	1,100		

Time span=1.00-24.00 hrs, dt=0.01 hrs, 2301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment1S: Drainage Area DA1**

Runoff Area=166,165 sf 29.71% Impervious Runoff Depth>1.25"  
Tc=5.0 min CN=52 Runoff=4.80 cfs 17,247 cf

**Pond 1P: Drainage Infiltration Model**

Peak Elev=39.57' Storage=2,236 cf Inflow=4.80 cfs 17,247 cf  
Outflow=2.21 cfs 17,182 cf

**Total Runoff Area = 166,165 sf Runoff Volume = 17,247 cf Average Runoff Depth = 1.25"**  
**70.29% Pervious = 116,801 sf 29.71% Impervious = 49,364 sf**

**17-198 RBOUR SUB DA1**

Type III 24-hr Barn Cty 25 Yr Rainfall=5.92"

Prepared by down cape engineering, inc.

**Summary for Subcatchment 1S: Drainage Area DA1**

Time of Concentration

Runoff = 4.80 cfs @ 12.09 hrs, Volume= 17,247 cf, Depth> 1.25"

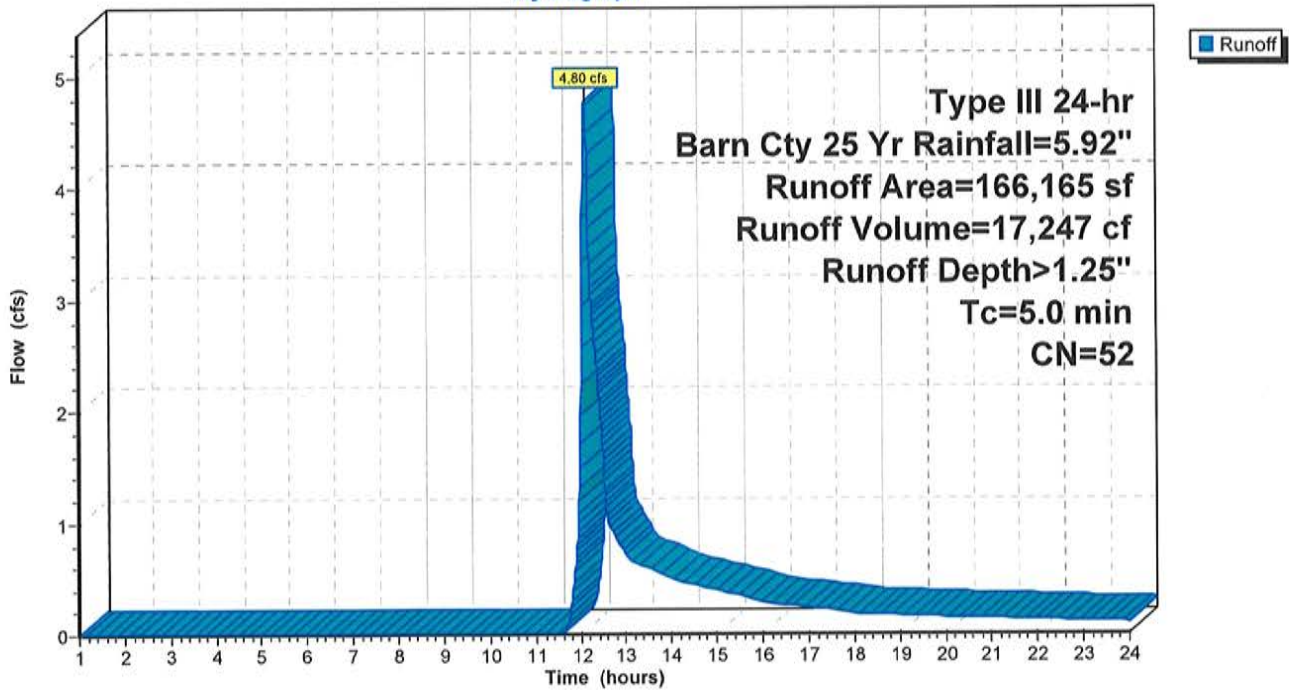
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs  
 Type III 24-hr Barn Cty 25 Yr Rainfall=5.92"

Area (sf)	CN	Description
116,801	32	Woods/grass comb., Good, HSG A
* 49,364	98	Pavement and front Roof Area
166,165	52	Weighted Average
116,801		70.29% Pervious Area
49,364		29.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Time Concentration

**Subcatchment 1S: Drainage Area DA1**

Hydrograph





**Summary for Pond 1P: Drainage Infiltration Model**

3 Leach pits with overflow to low area- Storage/Infiltration Model

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 166,165 sf, 29.71% Impervious, Inflow Depth > 1.25" for Barn Cty 25 Yr event  
 Inflow = 4.80 cfs @ 12.09 hrs, Volume= 17,247 cf  
 Outflow = 2.21 cfs @ 12.38 hrs, Volume= 17,182 cf, Atten= 54%, Lag= 17.3 min  
 Primary = 2.21 cfs @ 12.38 hrs, Volume= 17,182 cf

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 39.57' @ 12.38 hrs Storage= 2,236 cf

Plug-Flow detention time= 10.7 min calculated for 17,174 cf (100% of inflow)  
 Center-of-Mass det. time= 8.7 min ( 895.1 - 886.4 )

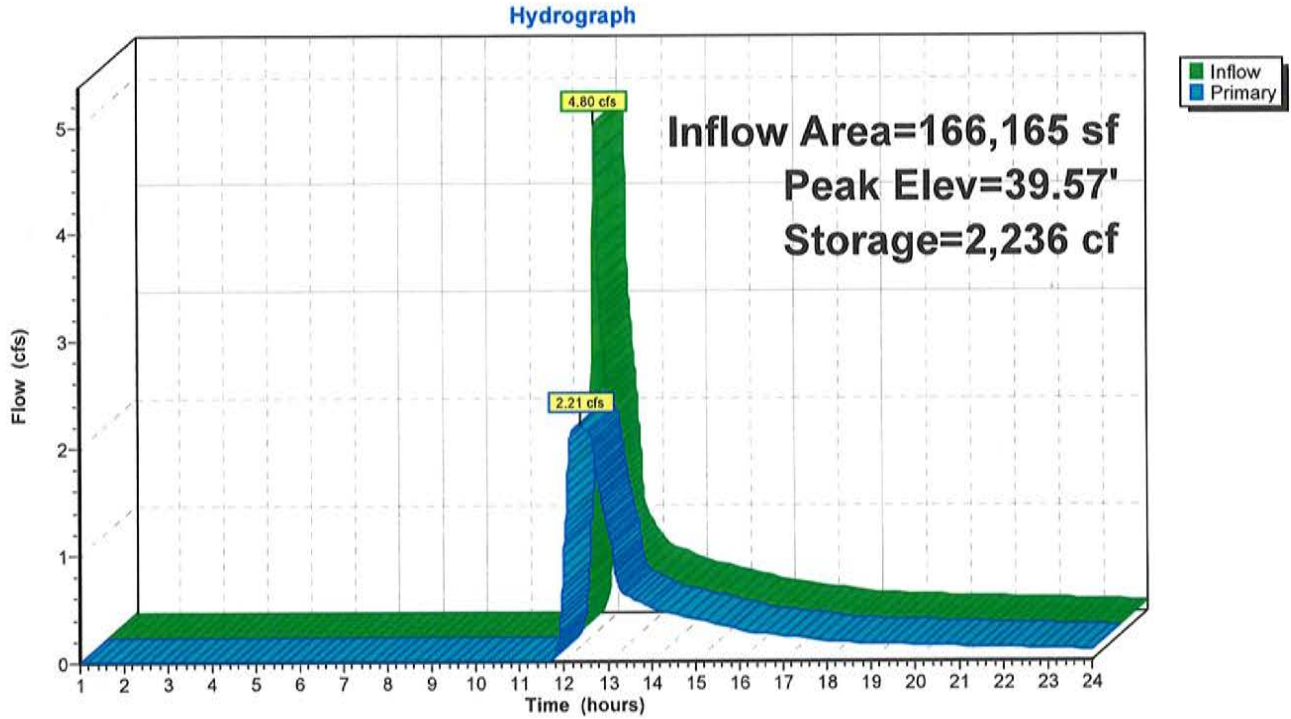
Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	5,894 cf	<b>Infiltration System Storage Mode</b> Listed below

Elevation (feet)	Cum.Store (cubic-feet)
32.00	0
33.00	157
34.00	393
35.00	629
36.00	864
37.00	1,100
38.00	1,335
39.00	1,571
40.00	2,742
42.00	5,894

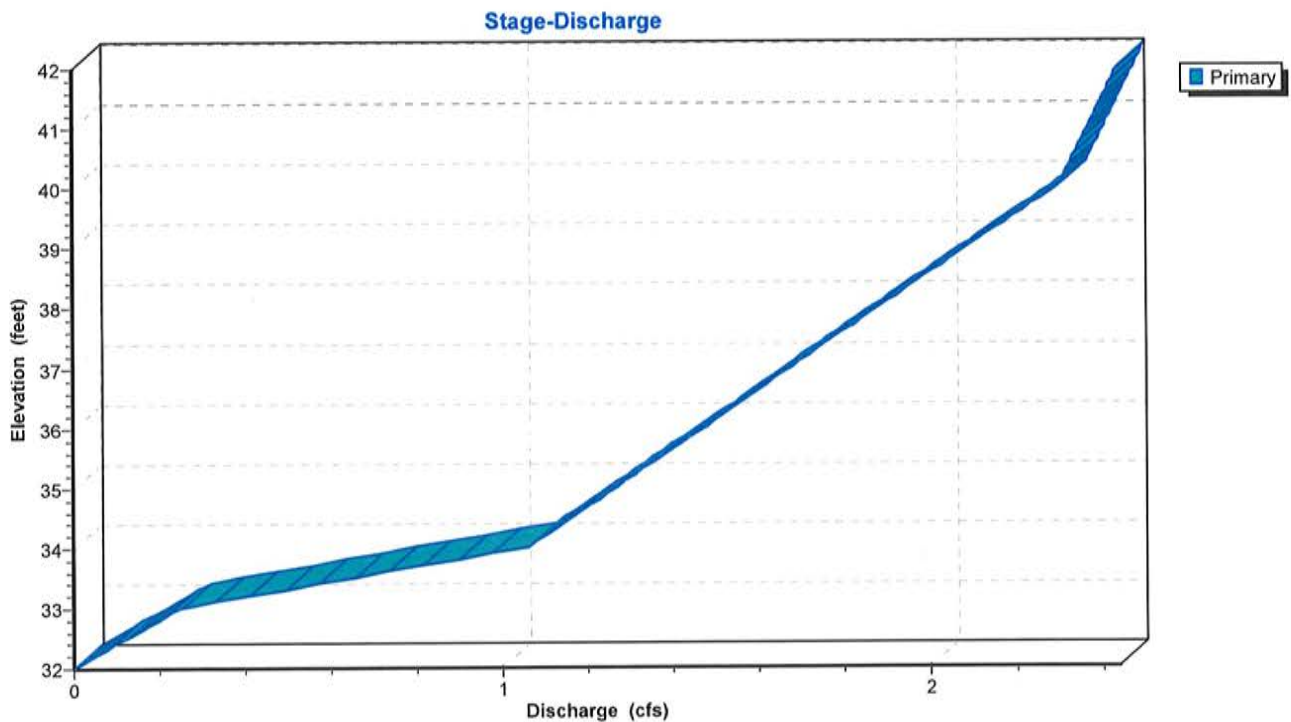
Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	<b>Infiltration Model</b>
			Elev. (feet) 0.00 32.00 33.00 34.00 35.00 36.00 37.00 39.00 40.00 42.00
			Disch. (cfs) 0.000 0.000 0.250 1.060 1.270 1.480 1.680 2.090 2.300 2.440

**Primary OutFlow** Max=2.21 cfs @ 12.38 hrs HW=39.57' (Free Discharge)  
 ↑1=Infiltration Model (Custom Controls 2.21 cfs)

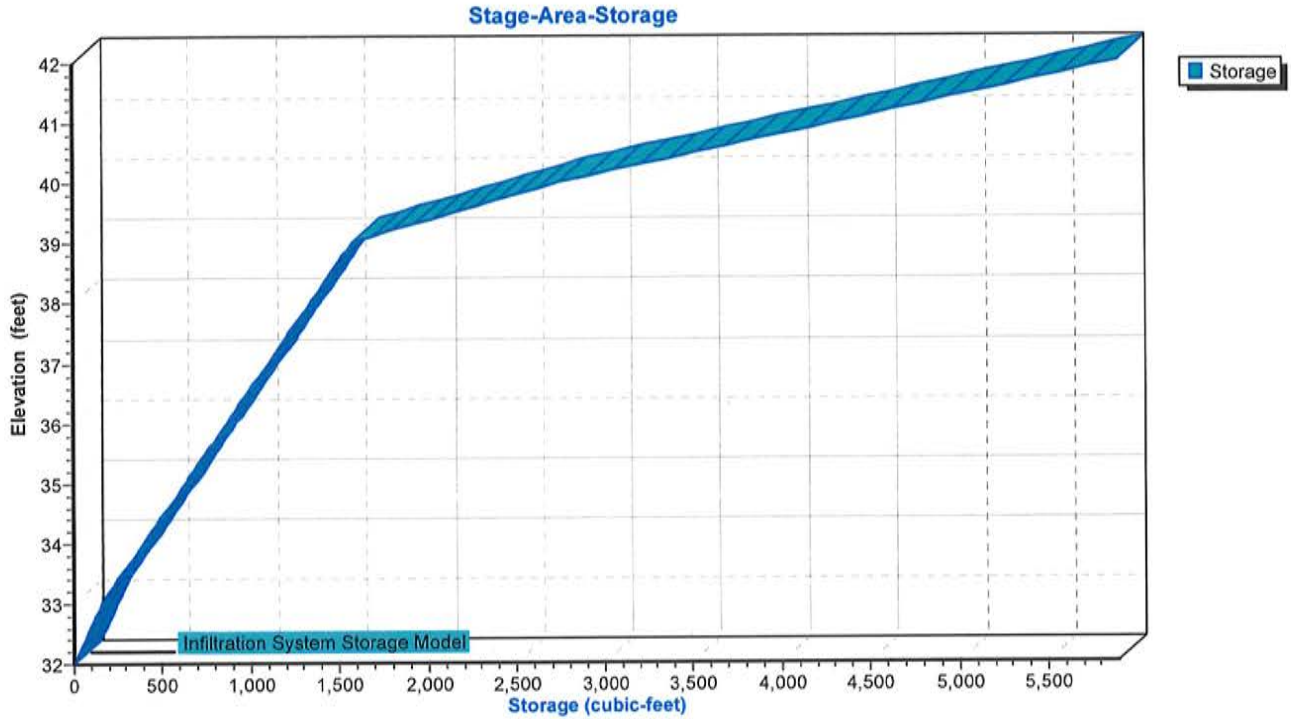
### Pond 1P: Drainage Infiltration Model



### Pond 1P: Drainage Infiltration Model



### Pond 1P: Drainage Infiltration Model



**Stage-Discharge for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
32.00	0.00	37.10	1.70
32.10	0.03	37.20	1.72
32.20	0.05	37.30	1.74
32.30	0.07	37.40	1.76
32.40	0.10	37.50	1.78
32.50	0.13	37.60	1.80
32.60	0.15	37.70	1.82
32.70	0.18	37.80	1.84
32.80	0.20	37.90	1.86
32.90	0.22	38.00	1.88
33.00	0.25	38.10	1.91
33.10	0.33	38.20	1.93
33.20	0.41	38.30	1.95
33.30	0.49	38.40	1.97
33.40	0.57	38.50	1.99
33.50	0.66	38.60	2.01
33.60	0.74	38.70	2.03
33.70	0.82	38.80	2.05
33.80	0.90	38.90	2.07
33.90	0.98	39.00	2.09
34.00	1.06	39.10	2.11
34.10	1.08	39.20	2.13
34.20	1.10	39.30	2.15
34.30	1.12	39.40	2.17
34.40	1.14	39.50	2.20
34.50	1.17	39.60	2.22
34.60	1.19	39.70	2.24
34.70	1.21	39.80	2.26
34.80	1.23	39.90	2.28
34.90	1.25	40.00	2.30
35.00	1.27	40.10	2.31
35.10	1.29	40.20	2.31
35.20	1.31	40.30	2.32
35.30	1.33	40.40	2.33
35.40	1.35	40.50	2.33
35.50	1.38	40.60	2.34
35.60	1.40	40.70	2.35
35.70	1.42	40.80	2.36
35.80	1.44	40.90	2.36
35.90	1.46	41.00	2.37
36.00	1.48	41.10	2.38
36.10	1.50	41.20	2.38
36.20	1.52	41.30	2.39
36.30	1.54	41.40	2.40
36.40	1.56	41.50	2.41
36.50	1.58	41.60	2.41
36.60	1.60	41.70	2.42
36.70	1.62	41.80	2.43
36.80	1.64	41.90	2.43
36.90	1.66	42.00	<b>2.44</b>
37.00	1.68		

**Stage-Area-Storage for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
32.00	0	37.10	1,124
32.10	16	37.20	1,147
32.20	31	37.30	1,170
32.30	47	37.40	1,194
32.40	63	37.50	1,218
32.50	79	37.60	1,241
32.60	94	37.70	1,265
32.70	110	37.80	1,288
32.80	126	37.90	1,311
32.90	141	38.00	1,335
33.00	157	38.10	1,359
33.10	181	38.20	1,382
33.20	204	38.30	1,406
33.30	228	38.40	1,429
33.40	251	38.50	1,453
33.50	275	38.60	1,477
33.60	299	38.70	1,500
33.70	322	38.80	1,524
33.80	346	38.90	1,547
33.90	369	39.00	1,571
34.00	393	39.10	1,688
34.10	417	39.20	1,805
34.20	440	39.30	1,922
34.30	464	39.40	2,039
34.40	487	39.50	2,157
34.50	511	39.60	2,274
34.60	535	39.70	2,391
34.70	558	39.80	2,508
34.80	582	39.90	2,625
34.90	605	40.00	2,742
35.00	629	40.10	2,900
35.10	653	40.20	3,057
35.20	676	40.30	3,215
35.30	699	40.40	3,372
35.40	723	40.50	3,530
35.50	747	40.60	3,688
35.60	770	40.70	3,845
35.70	794	40.80	4,003
35.80	817	40.90	4,160
35.90	840	41.00	4,318
36.00	864	41.10	4,476
36.10	888	41.20	4,633
36.20	911	41.30	4,791
36.30	935	41.40	4,948
36.40	958	41.50	5,106
36.50	982	41.60	5,264
36.60	1,006	41.70	5,421
36.70	1,029	41.80	5,579
36.80	1,053	41.90	5,736
36.90	1,076	42.00	<b>5,894</b>
37.00	1,100		

Time span=1.00-24.00 hrs, dt=0.01 hrs, 2301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment1S: Drainage Area DA1**      Runoff Area=166,165 sf    29.71% Impervious    Runoff Depth>1.64"  
Tc=5.0 min    CN=52    Runoff=6.73 cfs    22,736 cf

**Pond 1P: Drainage Infiltration Model**      Peak Elev=40.78'    Storage=3,969 cf    Inflow=6.73 cfs    22,736 cf  
Outflow=2.35 cfs    22,657 cf

**Total Runoff Area = 166,165 sf    Runoff Volume = 22,736 cf    Average Runoff Depth = 1.64"**  
**70.29% Pervious = 116,801 sf    29.71% Impervious = 49,364 sf**

**17-198 RBOUR SUB DA1**

Type III 24-hr Barn Cty 50 yr. Rainfall=6.65"

Prepared by down cape engineering, inc.

**Summary for Subcatchment 1S: Drainage Area DA1**

Time of Concentration

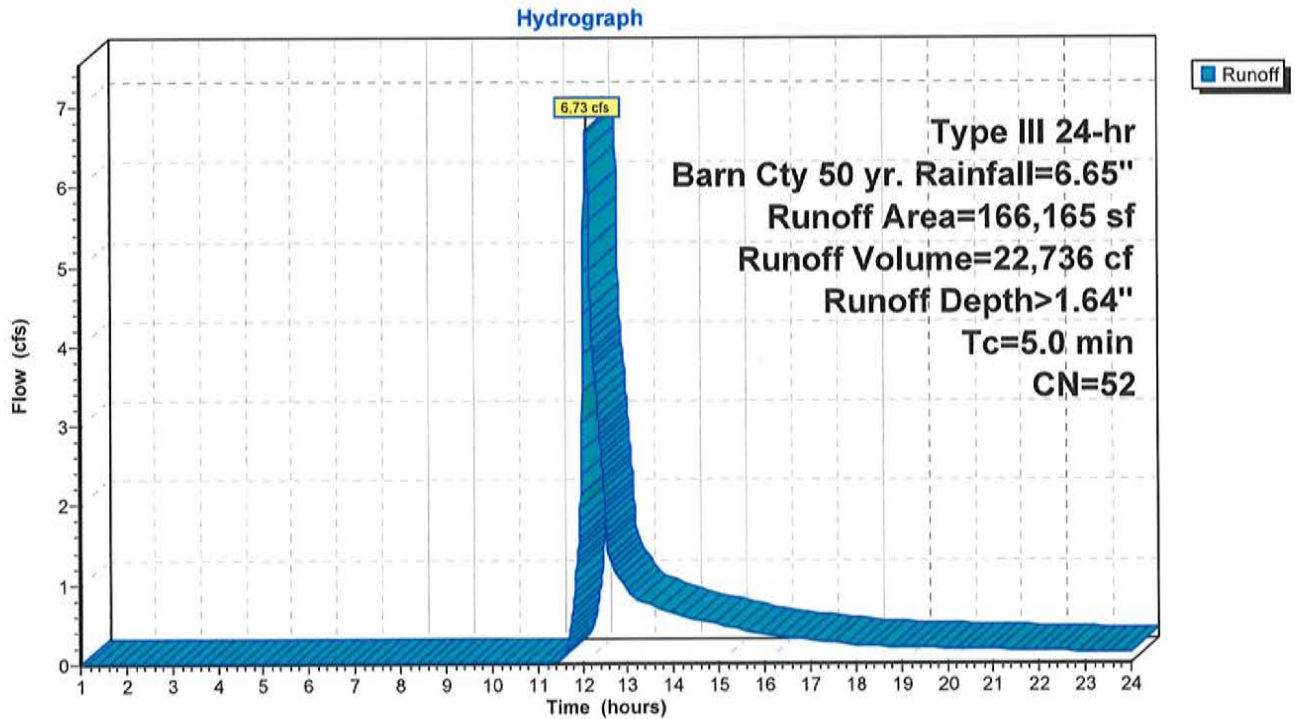
Runoff = 6.73 cfs @ 12.09 hrs, Volume= 22,736 cf, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs  
Type III 24-hr Barn Cty 50 yr. Rainfall=6.65"

Area (sf)	CN	Description
116,801	32	Woods/grass comb., Good, HSG A
* 49,364	98	Pavement and front Roof Area
166,165	52	Weighted Average
116,801		70.29% Pervious Area
49,364		29.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Time Concentration

**Subcatchment 1S: Drainage Area DA1**



**Summary for Pond 1P: Drainage Infiltration Model**

3 Leach pits with overflow to low area- Storage/Infiltration Model

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 166,165 sf, 29.71% Impervious, Inflow Depth > 1.64" for Barn Cty 50 yr. event  
 Inflow = 6.73 cfs @ 12.09 hrs, Volume= 22,736 cf  
 Outflow = 2.35 cfs @ 12.45 hrs, Volume= 22,657 cf, Atten= 65%, Lag= 21.8 min  
 Primary = 2.35 cfs @ 12.45 hrs, Volume= 22,657 cf

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 40.78' @ 12.45 hrs Storage= 3,969 cf

Plug-Flow detention time= 13.9 min calculated for 22,647 cf (100% of inflow)  
 Center-of-Mass det. time= 11.9 min ( 888.7 - 876.7 )

Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	5,894 cf	<b>Infiltration System Storage Model</b> Listed below

Elevation (feet)	Cum.Store (cubic-feet)
32.00	0
33.00	157
34.00	393
35.00	629
36.00	864
37.00	1,100
38.00	1,335
39.00	1,571
40.00	2,742
42.00	5,894

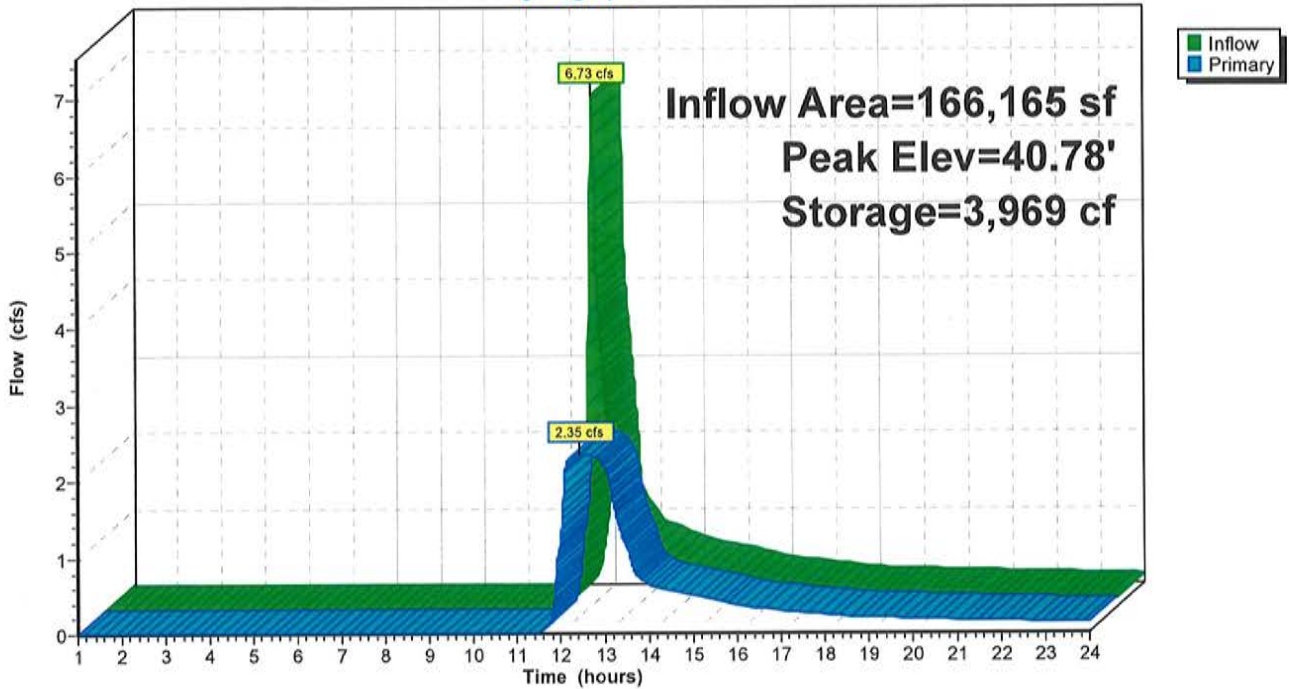
Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	<b>Infiltration Model</b>
			Elev. (feet) 0.00 32.00 33.00 34.00 35.00 36.00 37.00 39.00 40.00 42.00
			Disch. (cfs) 0.000 0.000 0.250 1.060 1.270 1.480 1.680 2.090 2.300 2.440

**Primary OutFlow** Max=2.35 cfs @ 12.45 hrs HW=40.78' (Free Discharge)  
 ↑1=Infiltration Model (Custom Controls 2.35 cfs)



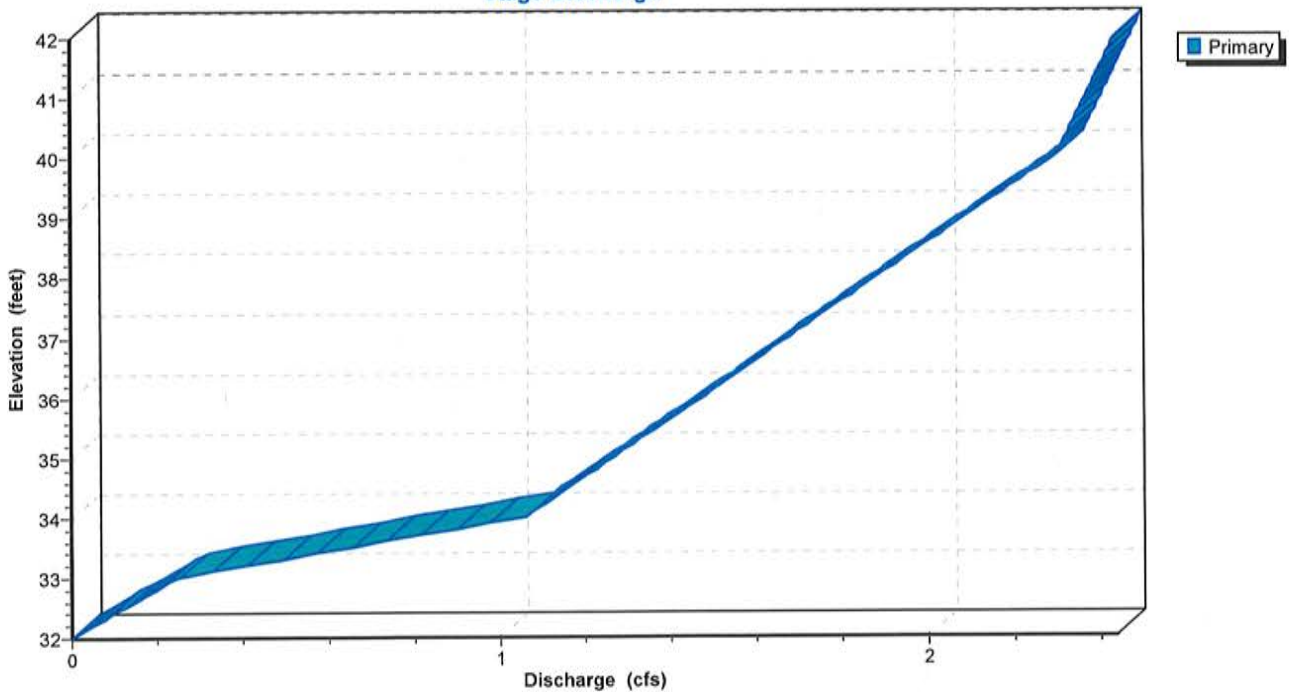
### Pond 1P: Drainage Infiltration Model

Hydrograph

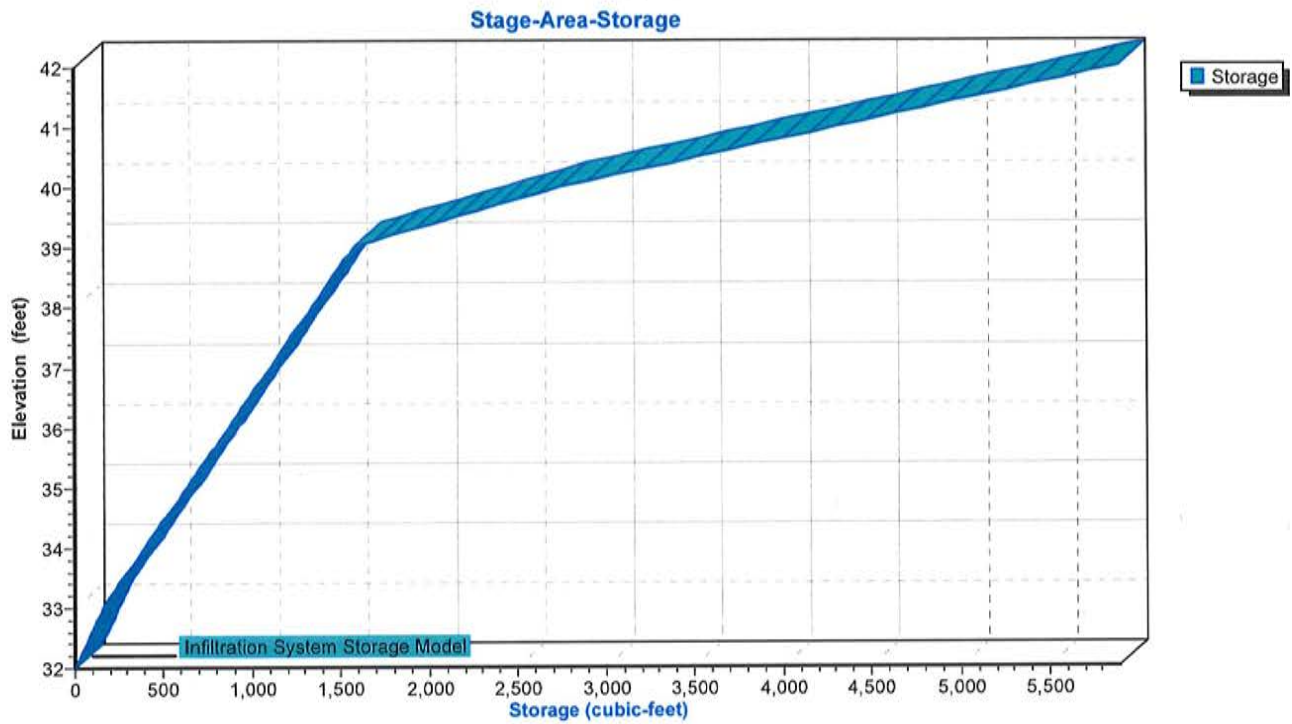


### Pond 1P: Drainage Infiltration Model

Stage-Discharge



### Pond 1P: Drainage Infiltration Model



**Stage-Discharge for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
32.00	0.00	37.10	1.70
32.10	0.03	37.20	1.72
32.20	0.05	37.30	1.74
32.30	0.07	37.40	1.76
32.40	0.10	37.50	1.78
32.50	0.13	37.60	1.80
32.60	0.15	37.70	1.82
32.70	0.18	37.80	1.84
32.80	0.20	37.90	1.86
32.90	0.22	38.00	1.88
33.00	0.25	38.10	1.91
33.10	0.33	38.20	1.93
33.20	0.41	38.30	1.95
33.30	0.49	38.40	1.97
33.40	0.57	38.50	1.99
33.50	0.66	38.60	2.01
33.60	0.74	38.70	2.03
33.70	0.82	38.80	2.05
33.80	0.90	38.90	2.07
33.90	0.98	39.00	2.09
34.00	1.06	39.10	2.11
34.10	1.08	39.20	2.13
34.20	1.10	39.30	2.15
34.30	1.12	39.40	2.17
34.40	1.14	39.50	2.20
34.50	1.17	39.60	2.22
34.60	1.19	39.70	2.24
34.70	1.21	39.80	2.26
34.80	1.23	39.90	2.28
34.90	1.25	40.00	2.30
35.00	1.27	40.10	2.31
35.10	1.29	40.20	2.31
35.20	1.31	40.30	2.32
35.30	1.33	40.40	2.33
35.40	1.35	40.50	2.33
35.50	1.38	40.60	2.34
35.60	1.40	40.70	2.35
35.70	1.42	40.80	2.36
35.80	1.44	40.90	2.36
35.90	1.46	41.00	2.37
36.00	1.48	41.10	2.38
36.10	1.50	41.20	2.38
36.20	1.52	41.30	2.39
36.30	1.54	41.40	2.40
36.40	1.56	41.50	2.41
36.50	1.58	41.60	2.41
36.60	1.60	41.70	2.42
36.70	1.62	41.80	2.43
36.80	1.64	41.90	2.43
36.90	1.66	42.00	<b>2.44</b>
37.00	1.68		

**Stage-Area-Storage for Pond 1P: Drainage Infiltration Model**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
32.00	0	37.10	1,124
32.10	16	37.20	1,147
32.20	31	37.30	1,170
32.30	47	37.40	1,194
32.40	63	37.50	1,218
32.50	79	37.60	1,241
32.60	94	37.70	1,265
32.70	110	37.80	1,288
32.80	126	37.90	1,311
32.90	141	38.00	1,335
33.00	157	38.10	1,359
33.10	181	38.20	1,382
33.20	204	38.30	1,406
33.30	228	38.40	1,429
33.40	251	38.50	1,453
33.50	275	38.60	1,477
33.60	299	38.70	1,500
33.70	322	38.80	1,524
33.80	346	38.90	1,547
33.90	369	39.00	1,571
34.00	393	39.10	1,688
34.10	417	39.20	1,805
34.20	440	39.30	1,922
34.30	464	39.40	2,039
34.40	487	39.50	2,157
34.50	511	39.60	2,274
34.60	535	39.70	2,391
34.70	558	39.80	2,508
34.80	582	39.90	2,625
34.90	605	40.00	2,742
35.00	629	40.10	2,900
35.10	653	40.20	3,057
35.20	676	40.30	3,215
35.30	699	40.40	3,372
35.40	723	40.50	3,530
35.50	747	40.60	3,688
35.60	770	40.70	3,845
35.70	794	40.80	4,003
35.80	817	40.90	4,160
35.90	840	41.00	4,318
36.00	864	41.10	4,476
36.10	888	41.20	4,633
36.20	911	41.30	4,791
36.30	935	41.40	4,948
36.40	958	41.50	5,106
36.50	982	41.60	5,264
36.60	1,006	41.70	5,421
36.70	1,029	41.80	5,579
36.80	1,053	41.90	5,736
36.90	1,076	42.00	<b>5,894</b>
37.00	1,100		

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# **STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

DATE: 10-8-2021  
Prepared by: down cape engineering, inc.  
939 Route 6a Yarmouthport, MA 02675  
Ph. 1-508-362-4541  
Fax 1-508-362-9880

**STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

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2. Overview of Stormwater Management System
3. Source Control Best Management Practices
4. Schedule of Inspection and Maintenance of System
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6. Estimated operations and maintenance budget
7. Operations and maintenance Log Form
8. Emergency Spill Contingency Plan

**STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

**OWNER OF STORMWATER SYSTEM AND  
RESPONSIBLE PARTY FOR OPERATIONS AND  
MAINTENANCE:**

**OWNER/RESPONSIBLE PARTY:**

Chris Our  
56 Obed Brooks Road  
Harwich, MA  
508-432-0530



## **STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

## **OVERVIEW OF STORMWATER MANAGEMENT SYSTEM:**

The drainage systems specified for proposed development area have been designed in accordance with Town of Harwich Subdivision Rules and Regulations and engineering department guidelines. The system has been designed to fully comply with the Stormwater Management Guidelines.

The drainage system utilizes deep sump hooded catch basins leading to leaching pits and a natural overflow drainage basin. The proposed use is a residential subdivision and is not a "Land Use with Higher Potential Pollutant Load" per the State Stormwater Management Guidelines, and onsite infiltration of the full design storm is utilized. The underlying material is sand, hydrologic group A under the guidelines.

During construction the installation of silt controls near the down gradient border will provide protection. The erosion control fence is to be inspected after every 1/4" rain event and is to be maintained until the site is stabilized.

The systems are designed to contain and infiltrate the design storm event onsite. The parking lot is to be swept free of sand each spring, on or about April 1<sup>st</sup>.

Best Management Practices incorporated in the project are as follows:

- Rain Gardens / Bioinfiltration areas (90% TSS Removal)
- Deep Sump Hooded Manholes offline (44% TSS Removal)
- Infiltration Trenches/Pit (80% TSS Removal)

## **STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

## **SCHEDULE OF INSPECTION AND MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM:**

### **SCHEDULE OF INSPECTION AND MAINTENANCE:**

The stormwater management system proposed for the site requires regular inspection and maintenance to ensure proper operation and effectiveness.

1. It is recommended that the stormwater system proposed for the site be inspected annually, and sediment removed from the catch basins as required. The inspection should involve physical inspection of the catch basins and manholes for sediment buildup and inspecting the drywells for solids carryover. If significant solids are found in the basins (more than 2"), basins shall be mechanically cleaned, and the sediment disposed of offsite in compliance with all local, state, and federal regulations. If slow infiltration is noted during storm events, the bottom of the bioretention area should be scarified to restore infiltration, and if required the infiltration pits should be repaired or rebuilt as necessary to restore function.
2. The roadway shall be swept free of sand after the last snowfall of each season, generally on or about April 1<sup>st</sup>.
3. Repair any damage to paved aprons, overflow spillways, reset/rebuild as required.
4. Operations and maintenance reports are to be maintained by owner for 5 year history

**STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

**SOURCE CONTROL BEST MANAGEMENT PRACTICES:**

1. The pavement should be swept after the last snowfall of the season (sweep on or about April 1<sup>st</sup>) and when necessary to remove accumulated debris, drywells to be inspected annually.
2. No illicit discharges of any type are allowed into the storm water drainage system or sewer system. Personnel should be instructed in proper disposal of any cleaning materials, paints, chemicals, or other potentially harmful substances utilized on or about the property. Soaps and other deliveries shall be at the loading dock only, to minimize lifting and potential drops of heavier items.

**STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

**#195 Queen Anne Road, Harwich, MA**

**EMERGENCY SPILL CONTIGENCY PLAN:**

1. The owner of the facility shall have a designated person with overall responsibility for spill response.
2. A summary of this plan shall be posted in a prominent location in the building. The Summary shall identify the phone numbers of regulatory agencies and individuals to be contacted in the event of a spill.
3. In the event of a spill, the following shall be notified: (emergencies dial 911)
  - a) Harwich Fire Department 1-508-430-7546  
(For a gasoline or hazardous materials spill)
  - b) Department of Environmental Protection 1-508-946-2850  
Emergency Response
  - c) Harwich Water Department 1-508-432-0304
  - d) Harwich Board of Health 1-508-430-7509
4. Notification of authorities for the cleanup of spills shall be done immediately upon discovery of a spill, except for minor spills inside the building which can be managed by onsite personnel. Any release to the environment must be reported immediately.

**STORMWATER OPERATIONS AND MAINTENANCE PLAN:**

#195 Queen Anne Road, Harwich, MA

**ESTIMATED OPERATIONS AND MAINTENANCE  
BUDGET:**

**Inspections: Annual inspection of drainage system:**

Visual inspection, probe sediment depth, review for signs of drainage issues, ...Est.  
\$150/visit = \$150/year.

**Maintenance of retention areas- mowing to be part of regular yardwork, removal  
of sediment retilling bottom once per 8 years at \$1600 = \$200/yr**

**Catch basin cleaning: Est. once every 2 years - \$150/year.**

**Street Sweeping: Est. \$400/visit.**

INSPECTION AND MAINTENANCE LOG FORM-  
Long Term Pollution Prevention and Erosion and Sedimentation  
Control

Project Name: Our Subdivision

Owner: Chris Our

Contractor:

Date    Description of Inspection or Maintenance Person    Comments  
(Sweep road, apron maintenance, silt fence, etc.)

**CONSTRUCTION PERIOD POLLUTION  
AND EROSION AND SEDIMENTATION  
CONTROL PLAN:**

DATE: 10-8-2021  
Prepared by: down cape engineering, inc.  
939 Route 6a Yarmouthport, MA 02675  
Ph. 1-508-362-4541  
Fax 1-508-362-9880

Fish & Game Drive and Wildlife Circle, Harwich - Construction Period Pollution and Erosion  
Control Plan

**CONSTRUCTION PERIOD POLLUTION AND EROSION AND SEDIMENTATION CONTROL PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

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5. Detail drawings and specifications for erosion control BMP's (see separate sheets)
6. Vegetation Planning (see separate sheets)
7. Site Development Plans (see separate sheets/contract documents)
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**CONSTRUCTION PERIOD POLLUTION AND EROSION AND SEDIMENTATION CONTROL  
PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

**RESPONSIBLE PARTY FOR PLAN COMPLIANCE:**

OWNER/RESPONSIBLE PARTY:

Chris Our  
56 Obed Brooks Road  
Harwich, MA  
508-432-0530

**CONSTRUCTION PERIOD POLLUTION AND EROSION AND SEDIMENTATION CONTROL PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

**NARRATIVE OF CONSTRUCTION PERIOD POLLUTION AND EROSION AND SEDIMENTATION CONTROL PLAN:**

The development proposal for Fish & Game Drive and Wildlife Circle, Harwich consists of a seven-lot residential subdivision and roadway. Erosion control consisting of silt fencing will be utilized to reduce the chance of any storm water pollution resulting from silt washing from the subject property. The underlying base soil material is clean sand, hydrologic group A. The drainage system utilizes deep sump hooded catch basins leading to leaching pits and a natural overflow drainage basin. The proposed work will generate a small potential for construction silt to leave the site. Temporary haybales are to be utilized where required near the daily construction areas, and silt fencing installed on the downgradient edges is to be installed prior to any other work on the site.

During construction, the natural sandy perimeter of the site, natural drainage areas, and the installation of a silt fence near the downgradient borders will provide protection from off site runoff. The rain garden areas will be excavated and utilized for stormwater infiltration during construction. Any construction silt is to be removed from the bottom of the natural drainage areas prior to final construction of the drainage structures. The erosion control fence is to be inspected after every 1/4" rain event and is to be maintained until the site is stabilized and a certificate of compliance obtained. A dedicated stone construction apron is planned.

**CONSTRUCTION PERIOD POLLUTION AND EROSION AND SEDIMENTATION CONTROL PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

**CONSTRUCTION PERIOD OPERATION AND MAINTENANCE PLAN:**

Construction Period Operation and Maintenance shall consist of installation and maintenance of appropriate erosion and sedimentation controls and best management practices such as litter pickup. The Operations and Maintenance will be per the schedule attached to this plan. The sediment barriers will be inspected after every rain event in excess of ¼" of precipitation. The inspection should involve physical inspection the silt fence for sediment buildup or solids carryover. If significant sediments are found against the silt fence the silt shall be mechanically removed. The crushed stone entrance apron shall be maintained, and the paved roadway shall be inspected for vehicle tracking and swept as required to prevent sediment from reaching the street infiltration systems. The proposed natural drainage areas will be utilized for stormwater control during the construction process. If siltation slows the infiltration of the temporary infiltration area, the bottom of the drainage area shall be cleaned of silt such that the infiltration capacity is restored.

**CONSTRUCTION PERIOD POLLUTION AND EROSION AND SEDIMENTATION CONTROL PLAN:**

**Fish & Game Drive and Wildlife Circle, Harwich, MA**

**Construction Sequencing Plan:**

The site will proceed continuously from silt fence installation, stone apron installation, site clearing, to utility and drainage installation, construction roadway base layers, paving, and then final landscaping work.

The silt fence installed at the downgradient proposed work limit line will not be removed until the site is fully stabilized after construction.

**SEQUENCING OF EROSION AND SEDIMENTATION CONTROLS:**

The erosion and sedimentation controls will be placed per plan as follows:

1. Work limit lines shall be staked in the field under the supervision of a Licensed Professional Land Surveyor to ensure accurate placement.
2. The silt fence line shall be installed as shown on the plans.
3. The washed stone construction apron shall be installed at the entrance of the site
4. The natural drainage areas shall be utilized for stormwater control during the construction process.

**CONSTRUCTION PERIOD POLLUTION AND EROSION AND SEDIMENTATION CONTROL PLAN:**

**#195 Queen Anne Road, Harwich, MA**

**SCHEDULE OF INSPECTION AND MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM:**

SCHEDULE OF INSPECTION AND  
SCHEDULE OF MAINTENANCE:

The erosion and sediment control plan proposed for the site requires regular inspection and maintenance to ensure proper operation and effectiveness.

1. The sediment barriers should be inspected after every rain event in excess of one-quarter inch of precipitation.
2. The inspection should involve physical inspection the silt fence for sediment buildup or solids carryover.
3. If significant sediments are found against the silt fence (more than 6" buildup measured from grade) the silt shall be mechanically removed.
4. The natural drainage areas shall be inspected, and any significant buildup of silt shall be removed. The infiltration pits shall not be utilized until the site is paved and stable.
5. The roadway shall be inspected for vehicle tracking and swept as required to prevent sediment from reaching the roadway drainage system, the operator shall monitor weather forecasts regularly to ensure timely sweeping prior to large rain events.



down cape engineering, inc.

CIVIL ENGINEERS & LAND SURVEYORS

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**STORMWATER NARRATIVE:**

**Fish & Game Drive & Wildlife Circle, Harwich, MA.**

**Date: 10-8-2021 © 2021 down cape engineering, inc.**

**OVERVIEW OF STORMWATER MANAGEMENT SYSTEM/  
NARRATIVE INDICATING STORMWATER STANDARDS  
COMPLIANCE:**

The drainage systems specified for proposed development have been designed in accordance with Town of Harwich Subdivision Rules and Regulations. The project consists of a seven-lot residential subdivision. Full compliance with all Stormwater Standards is met by the design. The site is within the Residential (RR) zoning district. The site is not a "Land Use with Higher Potential Pollutant Load" per the State Stormwater Management Guidelines, so infiltration after pretreatment is utilized. The underlying material is sand, hydrologic group A under the guidelines.

During construction, the installation of a silt controls where needed and a stone construction apron will provide full protection of the abutters and roadway. The erosion control fence is to be inspected after every rain event and is to be maintained until the site is stabilized and the permission obtained for removal. The stone drive apron will be utilized in the roadway entrance area during the work. There are no wetlands near the work areas.

The proposed offline deep sump hooded catch basins overflow to secondary deep sump hooded manholes installed prior to the infiltration units, so the design meets the 44% TSS removal prior to infiltration as required by the Standards. A natural drainage overflow area is proposed to help remove nitrogen and phosphorus. The infiltration system is sized per the subdivision guidelines using hydrocad calculations, which shows a 25 year storm event is contained and infiltrated onsite and provides the required Total Suspended Solids (TSS) removal mandated by the State Stormwater Management Guidelines.

Best Management Practices incorporated in the project are as follows:

- Rain Gardens / Bioinfiltration areas (90% TSS Removal)
- Deep Sump Hooded Catch Basins offline (25% TSS Removal)
- Secondary Deep Sump Hooded Manholes (25% TSS Removal)
- Infiltration pits (80% TSS Removal)

Compliance with the 10 State Stormwater Standards (in order in bold with explanation in lighter font following the numbered Standards is as follows:

1. **No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.**  
The project prevents existing stormwater from entering waters of the Commonwealth, and no new outfalls are proposed, so this standard is met and exceeded. The local regulation require a 25 year storm be infiltrated 100% onsite, exceeding the State requirements.
2. **Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.**  
The sandy soils permit onsite infiltration, the proposed drainage system will infiltrate a 25 year storm event onsite per the attached calculations, so this Standard is easily met by the proposal. Since the majority of a 100 year storm with Type III distribution (high peak) is also infiltrated onsite no greater impact to abutters than existing is assured.
3. **Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.**  
Local Town of Harwich requirements call for all stormwater to be infiltrated onsite for proposed subdivisions, and the proposed development complies with this standard, so the annual recharge is easily met.
4. **Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:**
  - a. **Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;**
  - b. **Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and**
  - c. **Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.**

A long term pollution prevention plan is to be attached, in excess of the correct volumes are captured, and pretreatment is provided per the Handbook, so compliance with #4 is assured.
5. **For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00. The standard residential lots and roadway are not applicable to higher potential pollutant loads per the Handbook, so this standard is "Not Applicable" for this site. (note that 44% TSS removal pretreatment is provided prior to infiltration).**

**6. Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply. The site is not within a Zone I, Zone A, or Zone II**

**7. A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions. This project fully complies with the standards.**

**8. A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented. The plans are to be provided under separate cover.**

**9. A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed. The plan to be attached.**

**10. All illicit discharges to the stormwater management system are prohibited. No illicit discharges are allowed or planned related to this site. Additional documentation will be filed per the stormwater instructions.**

As shown above and in the following calculations, the proposed site will be compliant with the State Stormwater Management Guidelines.



**DECLARATION OF PROTECTIVE COVENANTS,  
PERMANENT RESTRICTIONS, RIGHTS AND RESERVATIONS  
FOR: LOTS on Fish & Game Circle and Wildlife Circle, HARWICH, MA**

WHEREAS, the below signed, Christopher W. Our, Trustee of the Wildlife Circle Nominee Trust (hereinafter "Our") is the owner of land in Harwich, Massachusetts, being shown as Lots 1-7 inclusive, which lots have areas designated as "Vegetation and Wildlife Conservancy Areas" on Definitive Subdivision Plan of Land, Off Littlefield Pond Road, Harwich, MA prepared for R.B. Our Co. et al date July 14, 2021 which plan is recorded at the Barnstable County Registry of Deeds in Plan Book \_\_\_\_\_ Page \_\_\_\_\_ (hereinafter the "Subdivision Plan").

WHEREAS, said Our is hereinafter referred to as the Declarant; and

WHEREAS, it is the intention of the Declarant to create a residential subdivision in a natural wooded setting for all the land on said plan; and to secure proper and pleasing site development by retaining the maximum natural vegetation and by maintaining natural grade and to assure a high quality of community appearance.

THEREFORE, to protect and preserve the natural beauty and to create and maintain a desirable residential community and to maintain the value of all the homes, the Declarant hereby imposes the following restrictions, conditions, reservations and rights which shall run with said lots and be binding on all parties hereafter having any right, title or interest in said lots.

**I. RESTRICTIONS**

A. No trade or business, nor any mechanical, manufacturing or mercantile trade or business of any kind, nor practice of any profession shall be carried out upon the granted premises.

B. Tanks or any other storage facility for propane or other types of gas supply, in excess of 5 gallons for grills/firepits and the like, are prohibited. All other tanks maintained on any property shall be buried or confined within the residence.

C. No unregistered automobiles, campers, camping trailers, commercial vehicles, trucks (except light pickups), dump trucks, box trucks, econoline vans with commercial lettering, or moving vans are allowed on the property. No construction equipment or commercial vehicle of

any kind shall be parked in the open overnight, except as required during construction of dwellings, approved facilities, roads, driveways, utilities, or landscaping. Boats and boat trailers are allowed if enclosed and screened with fencing and shrubbery, approved by Declarant, so as to obscure visibility from the street or other abutting properties.

D. No animals of any kind may be kept except household pets. Specifically excluded are chickens, turkeys, geese, ducks, pigs and all other "farm" animals. No pets shall be kept which shall constitute a nuisance or which will be troublesome or objectionable to the occupants of adjoining or nearby premises.

E. No building material of any kind or character shall be placed upon any property except for the immediate purpose of construction of an approved dwelling or accessory structure.

F. No temporary house, trailer or tent shall be placed or erected on any property.

G. No more than three garage bays will be allowed per lot.

H. No clotheslines or drying yards are to be maintained. Receptacles or waste cans for the storage of household rubbish, garbage or refuse shall be stored in suitable containers with tops which can be securely affixed to prevent opening by animals, and if stored outdoors shall be enclosed and screened from the view of adjoining property or street by a fence, hedge or other similar enclosure.

I. No noxious or offensive activity shall be carried out upon any property, nor shall anything be done thereon which may be or become an annoyance or nuisance to the neighborhood.

J. No permanent signs shall be permitted on any lot except for one sign not over one and one-half (1-1/2) square feet in area, indicating the owner's name or identifying the owner's property. This restriction shall not apply to the Declarant, his successors or assigns.

K. No live trees exceeding six (6) inches in diameter at a point two (2) feet above ground level shall be disturbed in their natural growth except as may be necessary for building construction, site development or grading, until prior plan approval and consent shall have first

been obtained in writing from the Declarant, except as hereinafter provided.

L. The exterior of any building erected on any lot and the landscaping and grading in connection therewith shall be finished and completed within ninety days of issuance of a Certificate of Occupancy. No dwelling shall be occupied as a residence until it is completed, and no temporary building shall be so occupied on any lot. All bare or disturbed ground shall be covered with grass, stone, shells, asphalt, woodchips or pine needles. Dirt driveways are prohibited.

M. The structures and grounds on any property shall be maintained in a neat and attractive manner, and the entire property shall be kept free of rubbish, debris or material of any kind, which renders the same unsanitary, unsightly, offensive, or detrimental to any property within the Subdivision.

N. No antennas or aerials shall be placed upon any single-family lot unless completely inside a dwelling.

O. No ham radios, radio transmission equipment (including walkie talkies and CB radios) or microwave transmission equipment shall be operated or permitted without the prior written consent of the Declarant.

P. **PERMANENT RESTRICTION with regard to the WILDLIFE CONSERVANCY AREA.** No construction or alteration of any kind (exclusive of perimeter fencing, if any, which shall have a height approved as hereinafter set forth), including selective clearing or brushing, shall take place within the areas designated as "Vegetation & Wildlife Conservancy Areas" without the prior written approval of Declarant or the Division of Fisheries and Wildlife, which has determined that this area is within the actual habitat of the Eastern Box Turtle. No structure (fence or otherwise) shall be erected or maintained that impedes the migration of said Eastern Box Turtle. This permanent restriction is designed as a means of protecting said species. Notwithstanding the above restriction, improvements for drainage as shown on the plans submitted to the Town of Harwich Planning Board can be constructed in the

wildlife conservancy areas.

Q. RESTRICTION ON LEASING. A dwelling may not be leased for periods of less than four (4) weeks for more than two (2) times within any twelve (12) month period, i.e. no air b & b or vrbo.

R. NO TIME SHARING. No "Time Sharing Plan" (as hereinafter defined) shall be permitted for any dwelling. A "Time Sharing Plan" means any arrangement, plan, scheme, or similar device, whether by membership, agreement, tenancy in common, sale, lease, deed, rental agreement, license, right-to-use agreement, or by any other means, whereby a purchaser, in exchange for consideration, receives a right to use the dwelling for a specific period of time less than a full year during any given year, but not necessarily for consecutive years, and which extends for a period of more than three (3) years.

## **II. DEFAULT PROVISIONS**

A. In the event of a default in the performance of the provisions as set forth herein and if such default shall not have been cured within fourteen (14) days after written notice thereof, the Declarant, his successors or assigns, shall have the right to enter upon any lot and abate and remove, at the expense of the owner, all weeds, rubbish, debris or materials; to cut the grass and vegetation; to remove dead trees, shrubs and plants or other unsightly objects, vehicles or temporary structures; and to do all things necessary to place the property in a neat and orderly condition without being deemed guilty of any manner of trespass. The cost of any work so required shall become due and payable by the property owner or owners to the Declarant, his successors or assigns, immediately upon the completion thereof.

## **III. MINIMUM SQUARE FOOTAGE, ARCHITECTURAL GUIDELINES AND RESERVATION OF RIGHT TO AMEND**

A. DESIGN. The Declarant shall review designs specifically for conformance to the Guidelines and not to participate in a substantial way in the design process or to suggest alternative designs. We strongly recommend that applicants retain a licensed architect or other

qualified professional architectural designer to design their house.

B. STYLE. The Declarant has created the Architectural Guidelines with a particular architectural style in mind. It is a style rooted in traditional Cape Cod and New England forms with a bias toward larger ranches, Capes and Colonial style homes.

C. SIZE. No one-story dwelling shall be erected that contains less than 2000 square feet exclusive of porches, breezeways or attached garages. With regard to one and a half story dwellings, no Cape or one-half Cape shall be erected that contains less than 1600 square feet exclusive of porches, breezeways or attached garages. No two-story dwelling shall be erected containing less than 1800 square feet exclusive of porches, breezeways or attached garages. All dwellings must have at least a one-car garage. Garages may be "built under" or not attached, in accordance with overall plan and siting approval, if approved by the Declarant. The Declarant specifically reserves the right to amend (lessen) the square footage requirements so long as it owns at least one lot.

D. SCALE/PROPORTION. Houses should be scaled to compliment the lot size, geometry, and the existing landscaping as well as neighboring houses, where applicable. Scale is relative and does not necessarily impact size; a house can be large in area and still made to feel small in scale if properly designed.

The Declarant encourages designs in which separate building elements are in proper proportion to one another and in which the massing, or scale of individual building blocks relative to each other, is appropriate. As an example, a wing off the main house would be expected to be smaller and step forward or back of the plane of the main house. Layering, or creating recesses or elements which project out from the main planes of the building, can be used effectively to break up otherwise long, monotonous wall planes.

E. SIDING. The emphasis should be on muted, monochromatic earth tone color schemes and on natural wood materials rather than on masonry or other siding. Cedar shingles or clapboard with no more than 5" exposure to weather is preferred.

F. ROOF TREATMENTS. A variety of roof planes which result in appropriate proportion, massing, and scale are required. Roof pitches should be a minimum of 8 in 12 except farmer's porch or dormer roofs, where a minimum of 4 in 12 pitches will generally be required. Flat roof pitches are not allowed. Red cedar, white cedar or Architect asphalt roof shingles are required. Approved asphalt roof shingle colors shall be browns, dark grays or slate blend.

G. TRIM. A variety of trim details and colors are acceptable as long as they compliment the overall design. Designers should specify trim sizes and colors clearly on preliminary plans.

H. CHIMNEYS. Chimneys may be masonry or wood framed provided they are finished in brick, stucco or similar traditional finishes. The location, scale, and detailing of chimneys should be carefully planned. Direct vent for fireplaces are allowed but must be screened with landscaping so as to not be visible from the street.

I. SKYLIGHTS. The size and position of skylights on roof planes should compliment the overall design. A variety of manufacturers will be accepted. Bubble skylights will not be allowed.

J. DORMERS. A variety of dormer configurations are acceptable and will be judged on how they compliment the overall design. Dormers, which step in from the plane of the wall below are preferred and shed dormers should start below the ridge wherever possible and have cheeks on each end.

K. WINDOWS/DOORS. A wide variety of window and door treatments and manufacturers will be allowed and will be judged as they relate to the overall design of the house. Colonial style window grills are required.

L. DECKS. Decks should be well integrated into the overall design of the house. Elevated second level decks, which extend too far off the house, tend to look awkward and their supports too spindly and they will not be approved. First level decks are preferred to be low to the ground however where it is appropriate that they are somewhat elevated above grade, lattice may be required below. First floor decks should not be too large in relation to the house and must

be integrated with the design of the house and the landscaping.

M. FOUNDATIONS. Houses and foundations should be designed to fit the natural grade of the lot in such a way that no more than 8" of concrete is exposed above average existing or natural grade. All basement windows must have areaways. In cases of unusual grade conditions where complying with these requirements is not possible, the Declarant will consider landscaping solutions which mitigate the use of exposed foundation.

N. EXTERIOR LIGHTING. Exterior wall mounted light fixtures of a variety of styles and manufacturers are acceptable and will be judged by their relationship to the overall design of the house. Light fixtures shall be of a type, which produce soft levels of illumination, as bright light sources will not be allowed. All exterior lighting must be located or shielded in such a manner as to avoid spillover from the lot in intensities of over one (1) foot candle. Recommended walk and driveway lighting is a fixture with an indirect type light source, garden type, with a height of 2' 6" or less.

#### **IV. OBTAINING APPROVAL**

A. BUILDING PLANS. In order to obtain approval the owner must submit to the Declarant two (2) complete sets of building plans that include front, side and rear elevations. The building plans and/or specifications must describe the nature, size, type and color of all exterior building materials, including steps, patios, fences, lights, etc. The applicant must provide samples of all exterior colors to be used on the proposed house.

B. SITE PLANS. Applicants must submit a proposed plot plan showing the house as it relates to the properties lot lines. The proposed septic and well locations, as well as the proposed driveway and what materials will be used in the construction of the driveway. All septic and wells must be installed in accordance with and in the specific areas as shown on plan on record for this subdivision at the Harwich Board of Health.

C. LANDSCAPE PLANS. Applicants must submit a scaled landscape plan indicating the proposed location and grouping of plantings, their sizes and species. The plan shall indicate

the areas to be disturbed by construction and which areas will remain natural. The plan should also indicate areas to be lawn, mulched or stone. Any retaining walls shall also be indicated on the plan. A row of trees along the sides and rear property lines shall remain natural or be transplanted if accidentally disturbed or damaged.

D. PERFORMANCE BOND. The existing owner or contractor shall be responsible for damages to the infrastructure within said subdivision, including the loamed and seeded road shoulders. Each owner or their contractor shall provide a performance bond of \$1,000.00 prior to construction to ensure compliance with the terms and provisions of the documents. Said \$1,000.00 bond shall be returned to owner or contractor upon completion and approval of the house including landscaping, provided that damage has not occurred.

E. APPROVAL BY DECLARANT. The Declarant may decline to approve plans, which in its sole judgment, it deems not suitable or desirable. All approvals or disapprovals of the Declarant shall be in writing and shall be sent to the applicant. Evidence of such approval shall be made by means of a certificate, in recordable form, executed by Declarant. Declarant shall provide approvals or disapprovals within 30 days of submittal.

F. APPROVAL OF CONTRACTORS. All construction on any single family lots must be performed by duly licensed contractors and subcontractors approved by the Declarant in writing prior to performing such construction. All contractors must be properly insured including Workman's Compensation and Liability Insurance. Declarant may request copies of said policies. In the event a contractor or subcontractor performing work on a single family lot fails to comply with any of the terms and provisions of the documents, the Declarant shall have the right, after seven days notice to said contractor or subcontractor of non-compliance, to revoke such written approval and to prohibit such contractor or subcontractor, as the case may be, from entering upon the land. Declarant shall have the right and authority to condition its approval of any contractor upon the experience of said contractor in constructing custom homes.

## V. RESERVATIONS



A. The Declarant or his successors, heirs or assigns specifically reserves the fee in the ways and roads as shown on said Plan and the Declarant shall have the right to grant similar rights of way over the roads shown on said plans for the benefit of all lot owners on said plan, and for the benefit of the land of others not shown on said plans, and Declarant reserves the right to grant access over said roads to any person or persons for all purposes in which ways are used in the Town of Harwich. Any purchaser of a lot or lots of land in the Subdivision shall take subject to the rights and reservations created and expressed herein.

B. Each original owner or owners and their successors in title to any lot will have the right to use the ways and roads as shown on said plan in common with others who are now or may hereafter be entitled thereto for all purposes for which public roads are customarily used in the Town of Harwich. This instrument, in addition to creating restrictions, is intended to serve as a dedication of rights of ways for the benefit of each lot owner in the Subdivision.

C. The Declarant may construct and maintain drainage areas on portions of lots designated as drainage easement areas shown on said plans. The original Owner, for itself and its successors in record title, reserves the right to grant easements for utility purposes, cable television, telephone, gas, water and the like, in roads on the subdivision plan and within an area contiguous to, and no more than fifteen (15) feet in depth from said roads, for service boxes, wires, conduits and the necessary attachments for electrical energy, storm water drains, water and gas mains and pipes, and any other method of conducting and performing any utility function along or under the ground.

D. RESALES. Owner shall grant the Declarant or a licensed broker designated by Declarant a six (6) month exclusive brokerage listing for any vacant lot to be sold within the subdivision prior to listing said lot or lot/home package with any other brokerage company. In the event said lot is listed and sold by an outside brokerage company without a written waiver by Declarant, then the owner and/or the outside brokerage company shall pay Declarant an amount equal to no less than three (3) percent of the sales price of a lot/home package or five (5) percent of the sales price of a lot sale only. This provision will terminate five

years from conveyance to the original owner.

This paragraph shall not apply to a bank or lending institution's mortgage or to a foreclosure sale resulting therefrom, but shall apply after said foreclosure sale to any sale by the purchaser thereof other than the foreclosing bank or lending institution which may hold free and clear of said restriction.

E. DEVELOPMENT AND MARKETING ACTIVITIES. Declarant and his nominees reserve the right to enter into and transact on the land any business necessary to consummate the sale, lease, improvement, repair, maintenance or encumbrance of single family lots, residential dwellings or other real property in said subdivision including, but not limited to, the right to maintain models and a sales office, place signs, employ sales personnel, show residential dwellings and single family lots and other portions of the land, and use the portions of the land and residential dwellings and other improvements owned by Declarant or which Declarant or her nominees have the right to use, pursuant to a lease, for purposes set forth above and for storage of construction materials and for assembling construction components on site.

F. SALES AND CONSTRUCTION OFFICES. Declarant shall have the right to use one (1) or more residential dwellings, a trailer located on a portion of the land owned by Declarant, or a portion of any sales office as a construction office. Any such models, sales areas, sales offices, construction offices, signs and any other items pertaining to such sales, construction, maintenance and repair efforts shall not be considered a part of the common elements and shall remain the property of Declarant or its nominees, as the case may be. Declarant for itself and its nominees hereby reserves unto Declarant and its nominees an easement for an office to carry on Declarant's or its nominee's sales and resales business ("Sales Office") on any lots in the Subdivision Plan and easements for access to the Sales Office and for furnishing all required services and utilities to the Sales Office and easements for such other purposes as may be required in connection with the operation of the Sales Office. Declarant further specifically reserves the right in its sole discretion to place the Sales Office upon some other portion of the

land in which event the Sales Office shall remain the property of Declarant. Declarant further reserves the right to use the Sales Office as a sales and business office until Declarant no longer owns any single-family lots.

At such time as Declarant no longer owns any single family lots, or such earlier time as Declarant may determine in its sole discretion, Declarant may remove the Sales Office from the land, in which event the Sales Office shall remain the property of the Declarant. This right of use and transaction of business as set forth herein and any other rights reserved by Declarant in the Documents may be assigned, in writing, by the Declarant in whole or in part.

#### **VI. ENFORCEMENT OF RESTRICTIONS**

- A. If in the event the Declarant or any of his successors, heirs or assigns, are obligated to enforce any of the provisions of this Declaration, then and in that event should the Declarant or his successor, heirs or assigns be successful against any lot owner or lot owners in any court of law to cause the lot owner or owners abide by the terms and provisions of this covenant, then in that event the lot owner or owners shall be required to pay to the Declarant, his successors, heirs and assigns any and all attorney's fees and court costs incurred by the Declarant, his successors, heirs and assigns in prosecuting the enforcement of the terms and provisions of this Declaration.
- B. The Division of Fisheries and Wildlife shall have the power to enforce the permanent restriction with regard to the Eastern Box Turtle and shall be allowed to fine any offending owner accordingly for any violation.

#### **VII. AMENDMENT AND ASSIGNMENT OF RESTRICTIONS**

A. The Declarant may delegate or assign any or all of his rights, powers and obligations under these restrictions to any corporation, association or agent, said assignment to be in writing and duly recorded in the Barnstable County Registry of Deeds. **Except for the permanent restriction concerning the Wildlife and Conservancy Areas, the Declarant reserves the**

**right to release, modify, amend and waive said covenants, restrictions and conditions at any time.**

### **VIII. RIGHT OF FIRST REFUSAL**

A. In the event any vacant lot owner or owners shall receive a bonafide written offer from a third person or persons or any entity to purchase from the lot owner or owners any vacant lot of land shown on the said plan above mentioned; then and in that event before any conveyance shall be made to any such third person or persons or entity, the lot owner or owners shall deliver to the Declarant by certified mail, return receipt requested, a copy of such offer, and the Declarant shall notify the lot owner or owners, by certified mail, return receipt requested within thirty (30) days of receipt of such copy, whether the Declarant will purchase said lot for the net amount of said offer (i.e., without the necessity of either party paying a real estate broker) and if such reply is in the affirmative, the lot owner or owners shall within 60 days convey said real estate to the Declarant for the said net amount. In the event the response of the Declarant is in the negative, the same shall be under seal, acknowledged and in a form acceptable for recording at the Barnstable Registry of Deeds.

Should Declarant not respond within thirty (30) days, the lot owner or owners may execute and record a statement under oath of compliance with the provisions herein contained and such statement shall be conclusive and irrefutable with respect to the facts therein contained. This provision shall not apply to conveyances from the lot owner or owners to any of their children or the spouses of any such children, but shall apply to conveyances from said children or their spouses to any third person, persons or entity.

This provision is personal to the Declarant, shall not be considered running with the granted premises and shall terminate on the earliest occurrence of twenty (20) years after the date of the recording of this Declaration, or the construction of a house on the lot in the Subdivision and obtaining an occupancy permit from the Town of Harwich.

If any banking corporation or lending institution shall become the mortgagee of any of

the lots of land of any of the lot owner or owners, the premises shown on the said plan as mentioned above or any of the portion thereof, then this provision shall not apply to such mortgagee, its successors or assigns or anyone claiming by or through such mortgagee.

**IX. HOMEOWNER'S ASSOCIATION**

A. All of the lots within the above described plan shall be required to join the WILDLIFE CIRCLE ESTATES HOMEOWNER'S ASSOCIATION and to pay such charges as that association establishes for the maintenance of any open space areas and the like.

For my title reference, see the deeds recorded at Barnstable County Registry of Deeds in Book \_\_\_\_\_, Pages \_\_\_\_\_ through \_\_\_\_\_, inclusive.

WITNESS my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 2022.

Wildlife Circle Nominee Trust

\_\_\_\_\_  
By Christopher W. Our, Trustee

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss

July \_\_\_\_, 2022

Then personally appeared before me, the undersigned notary public, the above-named Christopher W. Our, Trustee of the Wildlife Circle Nominee Trust who is known by me and to me known to be, the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

\_\_\_\_\_  
Notary Public  
My commission expires: