



# ATTAR

ENGINEERING, INC

CIVIL • STRUCTURAL • MARINE

Mr. Dylan Smith, Planning Director  
Mr. Brendan Summerville, Town Planner  
Town of York, Maine  
186 York Street  
York, ME 03909

January 12<sup>th</sup>, 2026  
Project No. 24008

**RE: Site Plan & Subdivision Amendment Application  
Carriage Landing – Bristol Pointe #2 (Tax Map 50, Lot 122)  
294 York Street, York, Maine**

Dear Mr. Smith & Mr. Summerville:

On behalf of Graystone Builders, Inc. and York Building & Design Center, Inc. (c/o Walter Woods), I have enclosed for your review and consideration an application package and accompanying Plan Set for the above-referenced project. This development received amended Site Plan and Subdivision approval from the York Planning Board at their May 22<sup>nd</sup>, 2025 meeting.

As mentioned above, the Site Plan and Subdivision approvals received in 2025 called for the development of a 4,450 sq. ft. three-story mixed-use building. All elements of this approval – including building footprint, design, construction, interior layout, egress, and utility servicing – remain the same from the prior approval. Draft Findings of Fact and Waiver Request narratives are attached with much of the language carried forward from the 2025 editions.

The proposed amendments of this application include the expansion of the rearyard parking area to construct four (4) additional spaces. These additional spaces result in the relocation of the screened dumpster in service of this development, as well as the striped ADA aisle and associated signage, all of which have been reflected in the attached Plan Set. The additional parking now allows the proposed development to meet the minimum parking demand based on the use generators (17 parking spots proposed, 16.6 required), and no longer requires the application to seek the 50% reduction allowed in the YVC-1 base zone.

Other minor changes resulting in this parking expansion include the relocation of the proposed underground propane storage tank and the location of several landscape plantings meant to surround the perimeter of the impervious parking area. All affected Plan Set sheets have been updated to reflect these changes and are attached.

Lastly, the Applicant proposes a minor revision to the proposed stormwater management infrastructure for treatment of on-site runoff. Previously, the existing closed infrastructure beneath York Street that flows through the subject parcel by way of drainage easement was proposed to have its collected runoff routed into the subsurface detention area and bioretention vault constructed in the rearyard parking area of this development. As proposed, the existing York Street infrastructure shall be disconnected from the treatment infrastructure of this development, instead continuing to its outfall within the provided drainage easement in a fashion similar to the existing condition. The developed stormwater infrastructure would have its

locations adjusted slightly to allow this disconnected municipal infrastructure to flow to its outfall uninterrupted, and the proposed subsurface detention area and bioretention vault have been downsized with the reduced volumes being received by them with the municipal infrastructure now disconnected. Updated stormwater analysis Plan Set sheets, narratives, HydroCAD model publishes, operation and maintenance manuals, and Contech design specifications are all attached to reflect these proposed changes. Peak runoff reductions are still achieved at the single analysis point across all modeled storm events.

We look forward to discussing this project with Town Staff and Planning Board members at their next available meeting. If any additional information is required, please contact me. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Sudak". The signature is fluid and cursive, with the first name "Michael" and last name "Sudak" clearly distinguishable.

Michael J. Sudak, E.I.  
Staff Engineer

# PLANNING BOARD APPLICATION FORM



## INSTRUCTIONS

*This application form must be filled out completely and accurately for any application to the Planning Board. Attach additional information, plans, studies, etc. as required.*

## PROJECT INFORMATION

Project Name: Carriage Landing - Bristol Pointe #2 Amendment

Project Description: Amendment to previously-approved mixed use development. Proposed changes include additional rearyard parking and separation of on-site and municipal stormwater systems with common outlet at toe of slope of development.

Street Address: 294 York Street

Tax Map(s) & Lot(s): Tax Map 50, Lot 122 - York Village Center (YVC-1) base zone

## AUTHORIZED REPRESENTATIVE

*Identify the one person who will be the primary contact for this project.*

Name: Michael J. Sudak, Attar Engineering, Inc.

e-mail: mike@attarengineering.com

Phone #: 207.439.6023

## PROPERTY OWNER(S)

*Identify the owner or owners of all property involved in this application. Attach additional sheets if necessary. The property owner is the applicant.*

Name: Graystone Builders, Inc., c/o Walter Woods

Mailing Address: 764 U.S. Route 1, Suite #11, York ME 03909

By signing, I certify that the information provided is true and accurate, and that my authorized representative, if applicable, has my consent to represent this application.

Owner's Signature: Michael J. Sudak, agent Date: 1/12/2020

*In the event there is more than one owner, all must sign. Attach additional sheets if necessary.*



**Graystone Builders, Inc.  
York Building & Design Center, Inc.  
764 US-1, Suite 11, York, ME 03909**

June 4<sup>th</sup>, 2024  
Project No.: 24008

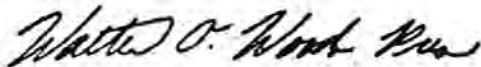
Mr. Dylan Smith, Director of Planning & Development  
Mr. DeCarlo Brown, Land Use Planner  
Town of York, Maine  
186 York St  
York, ME 03909

Dear Mr. Smith & Mr. Brown:

Please be informed that Kenneth A. Wood, P.E., Michael J. Sudak, E.I. and other assigned staff at Attar Engineering, Inc. will be acting as the agents for the applications and permitting of the project on York Street in York, Maine.

Please contact me if I can provide any additional information.

Sincerely,



Walter Woods  
Graystone Builders, Inc.

cc: Kenneth A. Wood, P.E, Michael J. Sudak, E.I., Attar Engineering, Inc.

Return to:

NANCY E HAMMOND, REGISTER OF DEEDS  
E-RECORDED **Bk 19354 PG 483**  
Instr # 2023037945  
12/01/2023 08:14:22 AM  
Pages 2 YORK CO

DLN: 1002340257730

### **WARRANTY DEED**

KNOW ALL BY THESE PRESENTS, that **Bristol Pointe, LLC**, a Maine limited liability company, with a mailing address of PO Box 840, Exeter, NH 03833 for consideration paid, hereby grant to **Graystone Builders, Inc.**, a Maine corporation of 764 US Route 1, Suite 11, York, ME 03909, with WARRANTY COVENANTS, the following described premises:

A certain parcel of land, together with the buildings and improvements thereon, situated in York, in the County of York, and State of Maine, on York Street and more particularly bounded and described as follows:

Beginning at a hub on the northeasterly side of York Street at the land now or formerly of Alexander W. Magosci; thence turning and proceeding N 49° 16' 38" E a distance of 215.50 feet, more or less, to a hub at the land now or formerly of Parsons Realty Co., Inc.; thence turning and proceeding S 45° 20' 35" E a distance of 133.00 feet, more or less, to land now or formerly of Walter E. Webster, III; thence turning and proceeding S 49° 15' 50" W a distance of 128.96 feet, more or less, along the land of Webster to an iron pipe at the land now or formerly of Hazel G. Messer; thence turning and proceeding N 42° 10' 00" W a distance of 59 feet, more or less, to an iron pipe marking the northerly corner of the land now or formerly of Messer; thence turning and proceeding along the land of said Messer S 49° 39' 24" W a distance of 44.66 feet, more or less, to an iron pipe; thence turning and proceeding N 40° 20' 36" W a distance of 5 feet, more or less, to an iron pipe; thence turning and proceeding along land now or formerly of Messer S 49° 39' 24" W a distance of 55 feet, more or less, to an iron pipe on the northeasterly side of York Street; thence turning and proceeding N 37° 25' 00" W a distance of 68.00 feet, more or less, to the point begun at.

The above described premises is benefited by a sewer line easement given by Parsons Realty Company, Inc. to Richard L. Bergeron and Alice C. Bergeron by instrument dated May 18, 1963 and recorded at the York County Registry of Deeds in Book 1549, Page 9.

Said premises is also subject to a drainage easement located on the northwesterly sideline of the land herein conveyed adjacent to the land now or formerly of Magosci as more particularly set forth in instrument from Richard L. Bergeron and Alice C. Bergeron to State of Maine - State

Maine R.E. Transfer Tax Paid

Highway Commission dated November 8, 1963 and recorded at York County Registry of Deeds in Book 1579, Page 191 and shown on plan recorded at said Registry in Plan Book 37, Page 18.

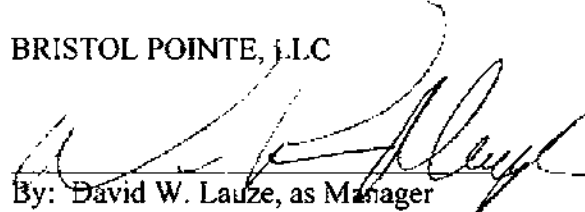
The above described parcel is shown on the plan entitled "Plan Showing Land of Wesley B. & Esther M. Austin, Hazel G. Messer & Richard L. & Alice C. Bergeron" dated August 1973 and drawn by Plato C. Houliars, Registered Land Surveyors, York, Maine, File No. 4042, Plan No. 8-70-73 and recorded at the York County Registry of Deeds in Plan Book 65, Page 29.

Said premises is also subject to an easement from Bristol Pointe, LLC to Bristol Pointe Condominium Owners Association, by instrument dated September 26, 2022 and recorded in York County Registry of Deeds at Book 19124 Page 54.

Meaning and intending to convey the same premises conveyed to the Grantor by deed of Andy Qing Wang and Wendy Chan dated November 17, 2020 and recorded in the York County Registry of Deeds at Book 18457, Page 117.

Signed this 30 day of November, 2023.


BRISTOL POINTE, LLC

  
By: David W. Lauze, as Manager

STATE OF Maine  
COUNTY OF York

On this, the 30 day of November, 2023, before me, the undersigned Officer, personally appeared David W. Lauze, in his capacity of Manager of Bristol Pointe, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed the same for the purposes set forth therein.



  
Justice of the Peace/Notary Public  
My commission expires: 06.30.2028

BOOK 1579 PAGE 191

EASEMENT

H. W. - 32

LOCATION

~~(City)~~ (Town)

STATE HIGHWAY

~~STATE AID HIGHWAY~~

STATE ROUTE No.

KNOW ALL MEN BY THESE PRESENTS:

THAT I / WE Richard L. Bergeron and Alice C. Bergeron of the Town of York,County of York and State of Mainefor ~~MYSELF~~ OURSELVES, ~~MY~~ OUR heirs, executors, administrators and assigns, in consid-eration of the sum of One (1.00) DOLLARS paid by the State of Maine, through its State Highway Commission, the receipt whereof is hereby acknowledged, do hereby grant unto the said State of Maine and its successors and assigns forever, the right to:

- ( ) Extend and Maintain Slopes and Culverts.
- (\*) Construct a Covered Drain. First described course
- (\*) Construct an Open Ditch. Second described course
- (\*) Flow Water. First, second, and third described courses

upon, over, through and across ~~MY~~ OUR land outside of and adjoining the Highway Right of Way, for Public Convenience and for the proper construction and care of said Highway; also the right to enter upon said premises at any time for the purpose of constructing, maintaining or repairing said slopes, structures and/or outlets thereof.

The said ~~(SLOPE)~~ ~~(CULVERT)~~ (COVERED DRAIN) (OPEN DITCH) (FLOWAGE) rights on ~~MY~~ OUR premises being more particularly located as follows: Beginning at a point in the easterly assumed right-of-way line of State Route No. 1A, said point being five (5) feet south-easterly from the property line of Doctor Alexander Magosci;

1. Thence S 64°-20' E one hundred fifteen (115) feet to a point;
2. Thence continuing same course about thirty-five (35) feet to a swamp;
3. Thence continuing same course across Grantors land.

The above-described first and second courses to be the center of a ten (10) foot easement. The State of Maine, through its State Highway Commission, agrees to install one hundred twenty (120) feet of 15 inch Corrugated Metal Pipe.

AND for the consideration aforesaid, I / WE do accept said sum in full payment of said Easement and for ~~MYSELF~~ OURSELVES and ~~MY~~ OUR heirs, executors, administrators and assigns, remise, release and forever discharge the said State of Maine, its successors and assigns, of and from all claims, demands and causes of action which I / WE now have against it, in law or equity and from all damages to ~~MY~~ OUR premises that may hereafter arise by reason of the construction, maintenance or repair of said ~~SLOPE, CULVERT~~, DRAIN, and/or DITCH and appurtenant structures and the carrying of water away from said highway and over and through any of the land hereinbefore described.

AND I / WE do, for ~~MYSELF~~ OURSELVES and ~~MY~~ OUR heirs, executors, administrators and assigns covenant with the said State of Maine, that I / WE are the lawful owner(s) of said premises, that I / WE have good right, and full power to give, grant, bargain, sell and convey the same in manner aforesaid: that the same are free and clear from all liens and encumbrances, except -

AND that I / WE will warrant and defend the same against the lawful claims and demands of all persons.

( over )

IN WITNESS WHEREOF, ~~WE~~ WE, the said Richard L. Bergeron and Alice C. Bergeron,

Husband and wife,

~~joining in this document as grantors and relinquishing and conveying~~ <sup>Have</sup> ~~all their right in the above described premises~~ <sup>hereby</sup> set our  
hand and seal this 8<sup>th</sup> day of November in the year of our Lord, one thousand  
nine hundred and ~~fifty~~ <sup>sixty</sup>-three.

SIGNED, SEALED and DELIVERED  
In the Presence of:

James S. Swin  
to both

Richard L. Bergeron DMD  
Alice C. Bergeron

STATE OF MAINE

COUNTY of York } ssNovember 8 1963

Personally appeared the above named Richard L. and Alice C. Bergeron and acknow-  
ledged the foregoing instrument to be their free act and deed.

Before me,

James S. Swin  
Notary Public

## MORTGAGE AGENT:

The conveyance of the above described premises shall not  
in any way affect or impair the right of the undersigned Richard L. Bergeron  
to hold under the mortgage on said premises in accordance with the provisions of said mortgage.

Bridgette S. Bergeron

This

the 11th

STATE OF MAINE

COUNTY of York } ssNov. 21

Personally appeared the above named Herbert S. Nichols and acknow-  
ledged the foregoing instrument to be his free act and deed in his said  
capacity and the free act and deed of said corporation.

Before me,

Notary Public for State of Maine

My Commission Expires April 20, 1967

Notary Public

NOTE: All Words or Phrases NOT applicable shall be delineated before document is signed.

Received DEC 17 1963 at 9 h 20 m. A M  
and recorded from full original



1199 REV. 7/85

16636 EASEMENT DEED

BK 4259 PG 067

49-1

Dr. Richard Bergeron and Alice Bergeron  
296 York Street  
of York, York County, Maine  
(being unmarried), for consideration given, grant to CENTRAL MAINE POWER COMPANY, a Maine corporation having its principal office at Edison Drive, Augusta, Maine 04336, and New England Tel. & Tel. Co.  
A New York Corporation having its principal place of business at  
185 Franklin Street, Boston, Mass. 02107.

and their respective successors and assigns, with warranty covenants, the right and easement to erect, bury, maintain, repair, rebuild, operate and patrol electric transmission, distribution and communication wires and/or cables, consisting of suitable and sufficient poles with wires strung upon and extending between the same and/or underground cables buried under the surface, together with all necessary fixtures and appurtenances, over, across and/or under the surface of my land in the Town/City of York, York County, Maine, the location of said wires and/or underground cables to be as follows:

Grantor grants permission to Central Maine Power Co. the rights to cross grantor real property with overhead service cable, extending in a easterly direction from pole #13 North Main Street, York to service residence of Wesley Austin.

This location crosses a portion of the premises conveyed to the Grantor(s) by deed of Wesley & Esmer Austin, dated Sept 14, 1973, recorded in the York County Registry of Deeds in Book 2015, Page 405. Together with the right to cut down, keep trimmed, and eliminate the growth of those trees and branches using formulations registered by the Environmental Protection Agency, as the Grantee believes may interfere with the operation and maintenance of its wires and/or cables; the right to restrict the construction of buildings or structures within 5 to 10 feet of its wires and/or cables; the right to keep the surface of the ground above said underground cables and other electrical equipment free from structures and growth which, in the judgment of the Grantee, would interfere with or endanger the proper operation or maintenance of said underground cables; and the right to enter upon the Grantor's premises for any and all of the foregoing purposes.

I, (we) Dr. Richard Bergeron and Alice Bergeron (wife) (husband) of the said Grantor(s), join as Grantor and release all rights by descent and all other rights.

WITNESS our hand(s) and seal(s) this 10<sup>th</sup> day of November, 1986

Signed, Sealed and Delivered  
in the presence of

Joyce McConnell

s/ Richard L Bergeron, D.M.D.

Witness: s/

Dr. Richard Bergeron

Hinda Flynn

s/ Alice Bergeron

Alice Bergeron

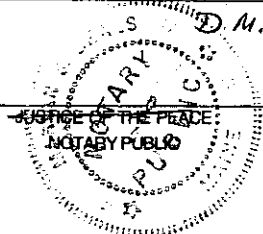
STATE OF MAINE YORK ss

November 10<sup>th</sup> 1986

Personally appeared the above-named ALICE C. BERGERON AND RICHARD L. BERGERON, and acknowledged this instrument to be their free act and deed, before me, and

Marian S. Beals  
NAME: MARIAN S. BEALS

MY COMMISSION EXPIRES  
DECEMBER 20, 1986



RECEIVED YORK, SS.

1987 APR 23 PM 3:11

RECORDED REGISTRY OF DEEDS

ATTEST: Ann M. Poyette

## **EASEMENT DEED**

***KNOW ALL By THESE PRESENT*** that **BRISTOL POINTE, LLC**, a Maine limited liability company, with a place of business in York, Maine and a mailing address of P.O. Box 840 Exeter, NH 03833, for consideration paid, *grants* to **BRISTOL POINTE CONDOMINIUM OWNERS ASSOCIATION**, a Maine Non-Profit Corporation, with a mailing address of 298 York Street, York, Maine 03909, an easement for access as well as for passive recreational purpose over a certain area of land of the Grantors located at 294 York Street, in the Town of York, County of York and State of Maine lying on the Northeasterly side on York Street, but not adjacent thereto, and being further bounded and described as follows:

Beginning at an 1" iron pipe marking the Northerly most corner at the Bristol Pointe condominium, said point of beginning lying approximately 100' Northeasterly from the Northeasterly sideline of York Street; thence running S 48° 46' 14" W 44.46' to a point; thence turning and running N 41° 13' 46" W 5' to a point; thence turning and running N 48° 46' 14" E 85' to a point; thence turning and running S 43° 03' 10" E 58.81' to a point; thence turning and running S 48° 22' 40" W 40.00' to a point; thence turning and running N 43° 03' 10" W by and along the common boundary with the Grantee 59.08' to a point and place of beginning.(Hereinafter, the Easement Area)

By acceptance of this easement, the Grantee, its successors and assigns agree to the following covenants, restrictions and obligations.

- 1.The area of the easement shall be used for passive recreational activities only, e.g., landscaping, benches and seating for reading, a firepit, picnic tables, etc;
2. No buildings may be erected in this area;
3. Landscaping is permitted including, but not by the way limitation, patios, low stonewalls, water creations, picnic areas, firepits (propane or gas only);
- 4.The Grantee may bring utilities such as water and electricity to this area; all such utilities will be buried;
5. No open wood fires are permitted in this area;
6. The Grantee shall be responsible for all development and maintenance cost associated with this area;
7. The Grantee shall at all times keep the area neat and clean. No personal property shall be stored in this area;
8. Pet owners comply with all Town of York ordinances regarding pets and immediately pick-up after their pets; Violation of its requirement will result in fines as follows: \$25.00 fine for the first violation; \$50.00 for the second; \$100 for any subsequent violation by

the same owner. The violator will also be responsible for all costs of collection, including court and Attorney fees.

9. There shall be no amplified music allowed within the Easement Area;

10. Any lighting installed in the Easement Area shall be reflected downward;

11. The Grantee shall indemnify and hold hundred the Grantor, its successors and assigns from any and all liabilities associated with the Grantees use of the Easement Area.

***IN WITNESS WHEREOF***, **DAVID LAUZE**, Member of **BRISTOL POINTE, LLC** has caused this instrument to be signed this 26th day of September, 2022.

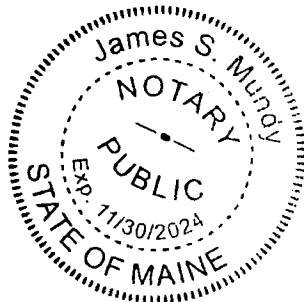
Orane Lauze  
Witness

**BRISTOL POINTE, LLC**  
By: [Signature]  
**DAVID LAUZE , Member**

***STATE OF MAINE***  
***County of York***

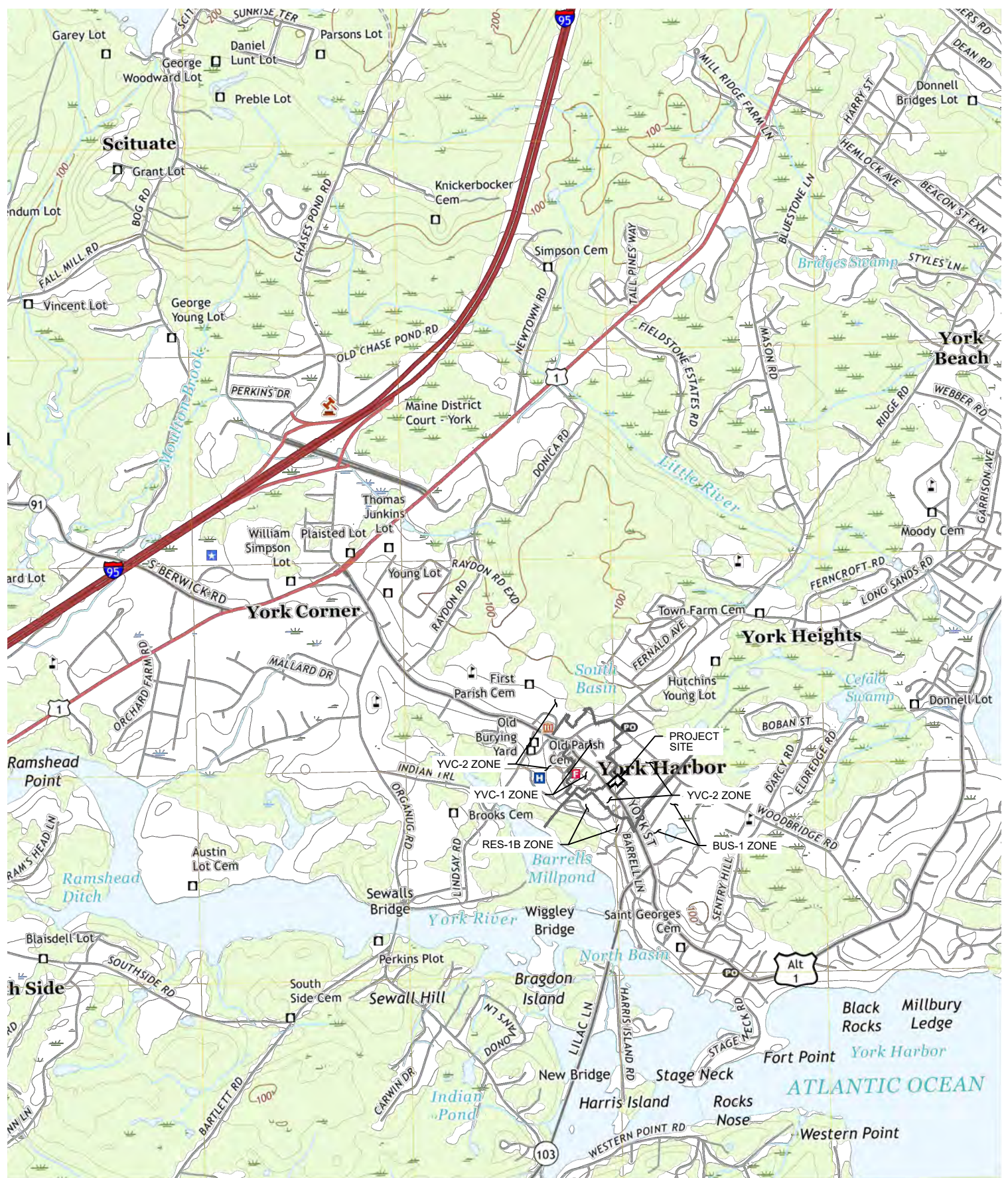
September 26, 2022

Then personally appeared the above-named **DAVID LAUZE**, Member of **BRISTOL POINTE, LLC**, and acknowledged the foregoing instrument to be his free act and deed in said capacity.



Before me,  
[Signature]  
Notary Public





# **ATTAR ENGINEERING, INC.**

CIVIL ♦ STRUCTURAL ♦ MARINE ♦ SURVEYING  
1284 STATE ROAD - ELIOT, MAINE 03903  
PHONE: (207)439-6023 FAX: (207)439-2128

## **LOCATION:**

294 YORK STREET  
YORK, ME 03909  
TAX MAP 50, LOT 122

## **INFORMATION:**

USGS LOCATION MAP  
7.5 MINUTE SERIES  
YORK HARBOR QUADRANGLE

PREPARED FOR:  
GRAYSTONE BUILDERS, INC.  
C/O WALTER WOODS  
764 U.S. RTE. 1, SUITE 11  
YORK, ME 03909

### **SCALE:**

1" = 2,000'

### **DATE:**

06/06/24

JOB NO: 24008

### **APPROVED BY:**

FILE: 294 YORK ST BASE.DWG

### **DRAWN BY:**

MJS

### **REVISION DATE:**

- : -

SHEET: 1 OF 1





# 100 feet Abutters List Report

York, ME  
October 03, 2024

## Subject Property:

Parcel Number: 0050-0122  
CAMA Number: 0050-0122  
Property Address: 294 YORK STREET

Mailing Address: GRAYSTONE BUILDERS INC  
764 US ROUTE 1 SUITE 11  
YORK, ME 03909

## Abutters:

Parcel Number: 0050-0010  
CAMA Number: 0050-0010  
Property Address: 301 YORK STREET

Mailing Address: LORD WILLIAM A/PERRY JUDITH M  
TRUSTEES WILLIAM A LORD & JUDITH  
M PERRY REV FAM TRUST  
PO BOX 22  
YORK, ME 03909

Parcel Number: 0050-0010-A  
CAMA Number: 0050-0010-A  
Property Address: 295 YORK STREET

Mailing Address: WATTS JONATHAN M/KATHLEEN E  
6 CARWIN DR  
YORK, ME 03909

Parcel Number: 0050-0012  
CAMA Number: 0050-0012  
Property Address: 291 YORK STREET

Mailing Address: COPPI NANCY E/BRACKEN ROBERT M  
TRUSTEES BRACKEN FAMILY  
IRREVOCABLE RE TRUST  
PO BOX 491  
YORK, ME 03909

Parcel Number: 0050-0106  
CAMA Number: 0050-0106  
Property Address: 33 WOODBRIDGE ROAD

Mailing Address: M H PARSONS & SONS LUMBER CO  
PO BOX 460  
YORK, ME 03909

Parcel Number: 0050-0121  
CAMA Number: 0050-0121  
Property Address: 292 YORK STREET

Mailing Address: SCOTT MINETA JEAN TRUSTEE MINETA  
J SCOTT REVOCABLE TRUST  
21 NEWSON LN  
ELIOT, ME 03903

Parcel Number: 0050-0122-A  
CAMA Number: 0050-0122-A  
Property Address: 300 YORK STREET

Mailing Address: TAPLEY WENDY J TRUSTEE WENDY J  
TAPLEY REVOCABLE TRUST  
PO BOX 448  
CAPE NEDDICK, ME 03902

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0000  
Property Address: 298 YORK STREET #0

Mailing Address: BRISTOL POINTE CONDO MAIN  
PO BOX 840  
EXETER, NH 03833

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0001  
Property Address: 298 YORK STREET #1

Mailing Address: SPROUT LLC  
PO BOX 809  
YORK HARBOR, ME 03911

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0002  
Property Address: 298 YORK STREET #2

Mailing Address: BURBANK NELSON S JR TRUSTEE  
NELSON S BURBANK JR REVOCABLE  
TRUST  
PO BOX 993  
YORK HARBOR, ME 03911



www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

10/3/2024

Page 1 of 2





# 100 feet Abutters List Report

York, ME  
October 03, 2024

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0003  
Property Address: 298 YORK STREET #3

Mailing Address: JIRAPORN AMMARIN  
1009 WHITE CEDAR BLVD  
PORTSMOUTH, NH 03801

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0004  
Property Address: 298 YORK STREET #4

Mailing Address: BURBANK NELSON S JR TRUSTEE  
NELSON S BURBANK JR REVOCABLE  
TRUST  
PO BOX 993  
YORK HARBOR, ME 03911

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0005  
Property Address: 298 YORK STREET #5

Mailing Address: HOWELL MATTHEW W  
PO BOX 545  
YORK, ME 03909

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0006  
Property Address: 298 YORK STREET #6

Mailing Address: MCFADDEN MICHAEL/KATHLEEN  
58 MAIN ST  
PROSPECT HARBOR, ME 04669

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0007  
Property Address: 298 YORK STREET #7

Mailing Address: HEGGE BRADLEY MCCLURE HEGGE  
MONIQUE  
298 YORK ST UNIT 7  
YORK, ME 03909

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0008  
Property Address: 298 YORK STREET #8

Mailing Address: ALLAN - TRUSTEES MARK/BRENDA  
ALLAN FAMILY TRUST MARK & BRENDA  
70 ST MORITZ ST  
MOULTONBOROUGH, NH 03254

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0009  
Property Address: 298 YORK STREET #9

Mailing Address: VASQUEZ GREGORY A TRUSTEE  
FARAGA FAMILY IRREVOCABLE TRUST  
200 CAPTAINS ROW #510  
CHELSEA, MA 02150

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0010  
Property Address: 298 YORK STREET #10

Mailing Address: ARDAGNA RACHEL C ARDAGNA JR  
JOSEPH N  
4079 ARTESA DR  
BOYNTON BEACH, FL 33436

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0011  
Property Address: 298 YORK STREET #11

Mailing Address: KAMAKAS JUDITH C - TRUSTEE  
KAMAKAS REVOC TRUST JUDITH C  
298 YORK ST UNIT 11  
YORK, ME 03909

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0012  
Property Address: 298 YORK STREET #12

Mailing Address: MCGOWAN HUGH D/KAREN Y  
298 YORK ST #12  
YORK, ME 03909

Parcel Number: 0050-0123  
CAMA Number: 0050-0123-0014  
Property Address: 298 YORK STREET #14

Mailing Address: EGGINGTON ROBERT HERTZ ANDREA  
L B  
298 YORK ST #14  
YORK, ME 03909

Parcel Number: 0050-0125  
CAMA Number: 0050-0125  
Property Address: 304 YORK STREET

Mailing Address: MCPHEE ELIZABETH A  
304 YORK ST  
YORK, ME 03909



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10/3/2024

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# ATTAR

ENGINEERING, INC

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## **CARRIAGE LANDING – BRISTOL POINTE #2 294 YORK STREET, YORK, MAINE STORMWATER MANAGEMENT STUDY**

Project No.: 24008

January 12<sup>th</sup>, 2026

### **◆ Scope**

This stormwater management plan has been prepared for Graystone Builders, Inc.'s proposed amendment to a previously-approved mixed-use building (multifamily residential condos and business/professional offices). The proposed development retains the previously-approved uses but revises (expands) the rearyard parking layout. The subject parcel is located off of York Street and contains approximately 0.54 acres. As previously approved, the site development will include the demolition of the existing two-story commercial building and construction of a 4,450 sq. ft. three-story mixed-use building, along with associated parking, egress, and utility services. The project will create approximately 0.20 acres of impervious area.

### **◆ Site and Watershed Description**

The project site is located in the Coastal Watershed – Central zone per the Town of York Comprehensive Plan, which empties to the Atlantic Ocean. A 7½ minute series USGS Map of the project area is attached.

The existing site is developed with the above-described 2,160 sq. ft. two-story commercial building, along with an asphalt driveway and parking areas, and a rearyard timber deck. The remainder of the lot contains short grass upland and a mix of forested and scrub shrub wetland. The site generally drains from southwest to northeast, away from York Street and towards the wetland complex in the rear of the parcel. Additionally, the parcel is subject to a municipal drainage easement which includes the daylight of a small section of the closed municipal system of catch basins and culverts beneath York Street.

### **◆ Soils/Hydrologic Soil Groups**

Soil types and their respective Hydrologic Soil Groups (HSG) were determined from the Medium-Intensity Soil Survey – Soil Survey of York County, Maine. The site consists entirely of HSG D soils, with specifics being included in the application attachments and Plan Set sheets.

### **◆ Methodology**

The stormwater quantity analysis will be conducted using the HydroCAD Stormwater Modeling System by Applied Microcomputer Systems. The analysis determines the "Existing Condition" and "Developed Condition" stormwater flows. Both cases are analyzed for the 2-, 10-, 25-, and 100-year, 24-hour frequency storm events for the Town of York. The Existing Condition analyzes the site as it currently exists, and the Developed Condition models the site with the proposed improvements described above.

### **◆ Water Quantity Analysis**

#### Existing Condition

The subject parcel itself was analyzed with two subcatchments (SC), one for the majority of on-site parcel drainage to the receiving wetland complex, and another for collected runoff

from the southerly-abutting parcel, whose existing flows and foundation drains empty onto the subject parcel and are received by the same wetland complex. This receiving wetland complex serves as the analysis point (AP) for both the Existing Condition and Developed Condition models. Additionally, individual subcatchments have been prepared for the three (3) existing catch basins within York Street, whose collected flows daylight on the subject parcel in the drainage easement described above. This AP was selected to provide a convenient point of comparison between the Existing and Developed Condition flows.

#### Developed Condition

The Developed Condition analysis consists of six (6) total subcatchments; four SC's from the existing condition remain unaffected – the three existing York Street catch basins as well as the subcatchment for the abutting development. The subject parcel is now broken into two SC's – the small portion of the site which continues to drain directly to the receiving wetland complex, and the majority of the proposed development which now enters into the project's stormwater management system. A subsurface detention area beneath the proposed parking lot, as well as a bioretention treatment chamber, are both proposed to manage the stormwater quantity and quality of the Developed Condition.

#### Changes in Stormwater Flows

Tables showing Existing Condition peak flows, Developed Condition peak flows and the change in peak flow from Existing Condition to Developed Condition are presented on a separate page.

The analysis indicates decreases in peak flow at both AP's for all storm events (2-, 10-, 25-, and 100-year).

#### ♦ **Summary**

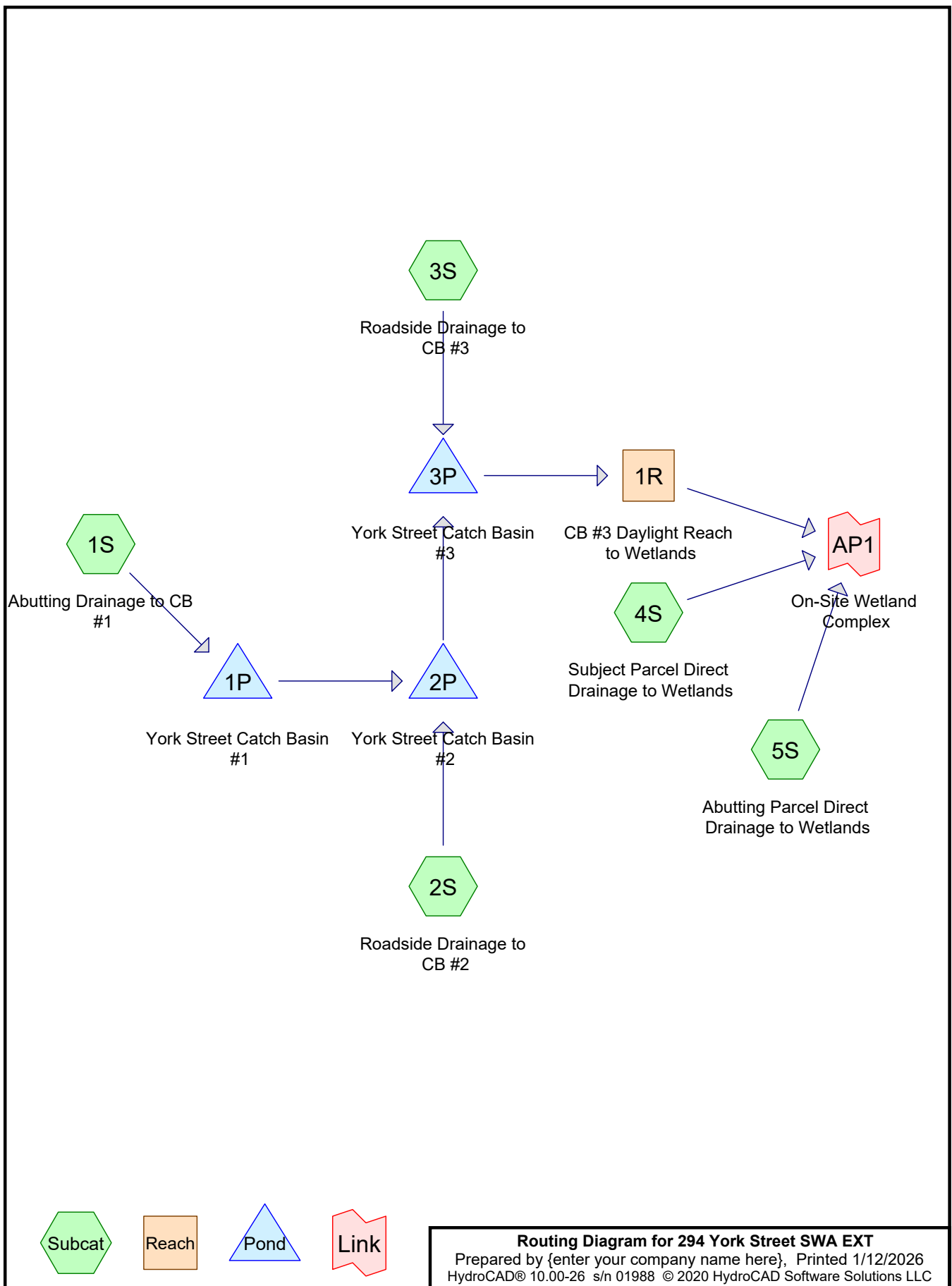
The use of innovative stormwater management practices (subsurface detention and bioretention), as well as a level spreader for the daylight of these BMPs, will retain and attenuate stormwater flows prior to their discharge into the adjacent receiving wetland complex. No adverse effects are anticipated on any downstream properties or drainage structures for the analyzed storm events.

Sincerely;



Michael J. Sudak, E.I.  
Staff Engineer

24008 – SW Narrative Amend.doc



## 294 York Street SWA EXT

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### Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.374	80	>75% Grass cover, Good, HSG D (2S, 3S, 4S, 5S)
0.106	77	Brush, Fair, HSG D (4S, 5S)
0.179	96	Gravel surface, HSG D (1S)
0.375	98	Paved parking, HSG D (1S, 2S, 3S, 4S, 5S)
0.226	98	Roofs, HSG D (1S, 4S, 5S)
0.001	98	Unconnected pavement, HSG D (4S)
0.882	82	Woods/grass comb., Fair, HSG D (1S)
<b>2.143</b>	<b>87</b>	<b>TOTAL AREA</b>



**294 York Street SWA EXT**

Type III 24-hr 2 YEAR STORM Rainfall=3.21"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>1.72"  
Flow Length=256' Tc=13.4 min CN=86 Runoff=2.07 cfs 0.175 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,504 sf 98.66% Impervious Runoff Depth>2.78"  
Flow Length=134' Tc=6.0 min CN=98 Runoff=0.24 cfs 0.019 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,828 sf 87.41% Impervious Runoff Depth>2.60"  
Flow Length=82' Tc=6.0 min CN=96 Runoff=0.19 cfs 0.014 af

**Subcatchment 4S: Subject Parcel Direct** Runoff Area=15,914 sf 37.32% Impervious Runoff Depth>1.72"  
Flow Length=65' Slope=0.0650 '/' Tc=6.2 min CN=86 Runoff=0.77 cfs 0.052 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=17,728 sf 40.64% Impervious Runoff Depth>1.80"  
Flow Length=92' Tc=4.3 min CN=87 Runoff=0.95 cfs 0.061 af

**Reach 1R: CB #3 Daylight Reach to** Avg. Flow Depth=0.11' Max Vel=2.52 fps Inflow=2.37 cfs 0.206 af  
n=0.030 L=40.0' S=0.0525 '/' Capacity=243.23 cfs Outflow=2.35 cfs 0.206 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=63.31' Storage=36 cf Inflow=2.07 cfs 0.175 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/' Outflow=2.07 cfs 0.175 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=62.04' Storage=36 cf Inflow=2.23 cfs 0.193 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/' Outflow=2.23 cfs 0.193 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=60.47' Storage=36 cf Inflow=2.37 cfs 0.207 af  
15.0" Round Culvert n=0.013 L=121.0' S=0.0413 '/' Outflow=2.37 cfs 0.206 af

**Link AP1: On-Site Wetland Complex**

Inflow=3.67 cfs 0.320 af  
Primary=3.67 cfs 0.320 af

**Total Runoff Area = 2.143 ac Runoff Volume = 0.322 af Average Runoff Depth = 1.80"**  
**71.91% Pervious = 1.541 ac 28.09% Impervious = 0.602 ac**

**294 York Street SWA EXT**

Type III 24-hr 10 YEAR STORM Rainfall=4.80"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>3.08"  
Flow Length=256' Tc=13.4 min CN=86 Runoff=3.65 cfs 0.315 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,504 sf 98.66% Impervious Runoff Depth>4.24"  
Flow Length=134' Tc=6.0 min CN=98 Runoff=0.37 cfs 0.028 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,828 sf 87.41% Impervious Runoff Depth>4.07"  
Flow Length=82' Tc=6.0 min CN=96 Runoff=0.29 cfs 0.022 af

**Subcatchment 4S: Subject Parcel Direct** Runoff Area=15,914 sf 37.32% Impervious Runoff Depth>3.09"  
Flow Length=65' Slope=0.0650 '/' Tc=6.2 min CN=86 Runoff=1.35 cfs 0.094 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=17,728 sf 40.64% Impervious Runoff Depth>3.18"  
Flow Length=92' Tc=4.3 min CN=87 Runoff=1.64 cfs 0.108 af

**Reach 1R: CB #3 Daylight Reach to** Avg. Flow Depth=0.15' Max Vel=3.08 fps Inflow=4.10 cfs 0.363 af  
n=0.030 L=40.0' S=0.0525 '/' Capacity=243.23 cfs Outflow=4.07 cfs 0.363 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=63.93' Storage=45 cf Inflow=3.65 cfs 0.315 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/' Outflow=3.66 cfs 0.314 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=62.36' Storage=40 cf Inflow=3.89 cfs 0.342 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/' Outflow=3.89 cfs 0.342 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=60.80' Storage=40 cf Inflow=4.10 cfs 0.364 af  
15.0" Round Culvert n=0.013 L=121.0' S=0.0413 '/' Outflow=4.10 cfs 0.363 af

**Link AP1: On-Site Wetland Complex**

Inflow=6.37 cfs 0.565 af  
Primary=6.37 cfs 0.565 af

**Total Runoff Area = 2.143 ac Runoff Volume = 0.567 af Average Runoff Depth = 3.17"**  
**71.91% Pervious = 1.541 ac 28.09% Impervious = 0.602 ac**

**294 York Street SWA EXT**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>4.20"  
Flow Length=256' Tc=13.4 min CN=86 Runoff=4.91 cfs 0.429 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,504 sf 98.66% Impervious Runoff Depth>5.37"  
Flow Length=134' Tc=6.0 min CN=98 Runoff=0.47 cfs 0.036 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,828 sf 87.41% Impervious Runoff Depth>5.22"  
Flow Length=82' Tc=6.0 min CN=96 Runoff=0.37 cfs 0.028 af

**Subcatchment 4S: Subject Parcel Direct** Runoff Area=15,914 sf 37.32% Impervious Runoff Depth>4.20"  
Flow Length=65' Slope=0.0650 '/ Tc=6.2 min CN=86 Runoff=1.81 cfs 0.128 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=17,728 sf 40.64% Impervious Runoff Depth>4.31"  
Flow Length=92' Tc=4.3 min CN=87 Runoff=2.19 cfs 0.146 af

**Reach 1R: CB #3 Daylight Reach to** Avg. Flow Depth=0.18' Max Vel=3.43 fps Inflow=5.47 cfs 0.491 af  
n=0.030 L=40.0' S=0.0525 '/ Capacity=243.23 cfs Outflow=5.44 cfs 0.491 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=64.69' Storage=54 cf Inflow=4.91 cfs 0.429 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/ Outflow=4.91 cfs 0.428 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=62.70' Storage=44 cf Inflow=5.21 cfs 0.464 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/ Outflow=5.21 cfs 0.463 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=61.18' Storage=45 cf Inflow=5.47 cfs 0.492 af  
15.0" Round Culvert n=0.013 L=121.0' S=0.0413 '/ Outflow=5.47 cfs 0.491 af

**Link AP1: On-Site Wetland Complex**

Inflow=8.51 cfs 0.765 af  
Primary=8.51 cfs 0.765 af

**Total Runoff Area = 2.143 ac Runoff Volume = 0.767 af Average Runoff Depth = 4.29"**  
**71.91% Pervious = 1.541 ac 28.09% Impervious = 0.602 ac**

**294 York Street SWA EXT**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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**Summary for Subcatchment 1S: Abutting Drainage to CB #1**

Runoff = 4.91 cfs @ 12.18 hrs, Volume= 0.429 af, Depth&gt; 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
38,424	82	Woods/grass comb., Fair, HSG D
7,819	96	Gravel surface, HSG D
5,049	98	Paved parking, HSG D
2,104	98	Roofs, HSG D
53,396	86	Weighted Average
46,243		86.60% Pervious Area
7,153		13.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	99	0.0808	0.14		<b>Sheet Flow, SF 1</b>
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.1	107	0.1070	1.64		<b>Shallow Concentrated Flow, SCF 1</b>
					Woodland Kv= 5.0 fps
0.3	50	0.0150	2.49		<b>Shallow Concentrated Flow, SCF 2</b>
					Paved Kv= 20.3 fps
13.4	256	Total			

**Summary for Subcatchment 2S: Roadside Drainage to CB #2**

Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.036 af, Depth&gt; 5.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
47	80	>75% Grass cover, Good, HSG D
3,457	98	Paved parking, HSG D
3,504	98	Weighted Average
47		1.34% Pervious Area
3,457		98.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	134		0.37		<b>Direct Entry, SC 2</b>

**Summary for Subcatchment 3S: Roadside Drainage to CB #3**

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 0.028 af, Depth&gt; 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

**294 York Street SWA EXT**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Area (sf)	CN	Description
356	80	>75% Grass cover, Good, HSG D
2,472	98	Paved parking, HSG D
2,828	96	Weighted Average
356		12.59% Pervious Area
2,472		87.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	82		0.23		<b>Direct Entry, SC 3</b>

**Summary for Subcatchment 4S: Subject Parcel Direct Drainage to Wetlands**

Runoff = 1.81 cfs @ 12.09 hrs, Volume= 0.128 af, Depth&gt; 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
8,568	80	>75% Grass cover, Good, HSG D
2,432	98	Paved parking, HSG D
3,476	98	Roofs, HSG D
1,407	77	Brush, Fair, HSG D
31	98	Unconnected pavement, HSG D
15,914	86	Weighted Average
9,975		62.68% Pervious Area
5,939		37.32% Impervious Area
31		0.52% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	65	0.0650	0.17		<b>Sheet Flow, SF 1</b> Grass: Dense n= 0.240 P2= 3.30"

**Summary for Subcatchment 5S: Abutting Parcel Direct Drainage to Wetlands**

Runoff = 2.19 cfs @ 12.06 hrs, Volume= 0.146 af, Depth&gt; 4.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
7,311	80	>75% Grass cover, Good, HSG D
2,944	98	Paved parking, HSG D
4,260	98	Roofs, HSG D
3,213	77	Brush, Fair, HSG D
17,728	87	Weighted Average
10,524		59.36% Pervious Area
7,204		40.64% Impervious Area



**294 York Street SWA EXT**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	56	0.0535	0.23		<b>Sheet Flow, SF1</b>
					Grass: Short n= 0.150 P2= 3.30"
0.2	36	0.1210	2.43		<b>Shallow Concentrated Flow, SCF1</b>
					Short Grass Pasture Kv= 7.0 fps
4.3	92	Total			

**Summary for Reach 1R: CB #3 Daylight Reach to Wetlands**

Inflow Area = 1.371 ac, 21.90% Impervious, Inflow Depth > 4.30" for 25 YEAR STORM event  
 Inflow = 5.47 cfs @ 12.17 hrs, Volume= 0.491 af  
 Outflow = 5.44 cfs @ 12.18 hrs, Volume= 0.491 af, Atten= 1%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 3.43 fps, Min. Travel Time= 0.2 min  
 Avg. Velocity = 1.13 fps, Avg. Travel Time= 0.6 min

Peak Storage= 63 cf @ 12.18 hrs  
 Average Depth at Peak Storage= 0.18'  
 Bank-Full Depth= 1.50' Flow Area= 21.0 sf, Capacity= 243.23 cfs

8.00' x 1.50' deep channel, n= 0.030 Earth, grassed & winding  
 Side Slope Z-value= 4.0 ' ' Top Width= 20.00'  
 Length= 40.0' Slope= 0.0525 ' '  
 Inlet Invert= 54.70', Outlet Invert= 52.60'

**Summary for Pond 1P: York Street Catch Basin #1**

Inflow Area = 1.226 ac, 13.40% Impervious, Inflow Depth > 4.20" for 25 YEAR STORM event  
 Inflow = 4.91 cfs @ 12.18 hrs, Volume= 0.429 af  
 Outflow = 4.91 cfs @ 12.19 hrs, Volume= 0.428 af, Atten= 0%, Lag= 0.2 min  
 Primary = 4.91 cfs @ 12.19 hrs, Volume= 0.428 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 64.69' @ 12.19 hrs Surf.Area= 13 sf Storage= 54 cf

Plug-Flow detention time= 1.4 min calculated for 0.427 af (100% of inflow)  
 Center-of-Mass det. time= 0.7 min ( 773.1 - 772.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	60.50'	188 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

**294 York Street SWA EXT**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.50	13	0	0
62.50	13	26	26
65.10	13	34	60
65.60	500	128	188

Device	Routing	Invert	Outlet Devices
#1	Primary	62.50'	<b>12.0" Round CMP_Round 12"</b> L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.50' / 61.60' S= 0.0273 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

**Primary OutFlow** Max=4.85 cfs @ 12.19 hrs HW=64.65' (Free Discharge)

↑1=CMP\_Round 12" (Inlet Controls 4.85 cfs @ 6.18 fps)

**Summary for Pond 2P: York Street Catch Basin #2**

Inflow Area = 1.306 ac, 18.65% Impervious, Inflow Depth > 4.26" for 25 YEAR STORM event  
Inflow = 5.21 cfs @ 12.18 hrs, Volume= 0.464 af  
Outflow = 5.21 cfs @ 12.18 hrs, Volume= 0.463 af, Atten= 0%, Lag= 0.1 min  
Primary = 5.21 cfs @ 12.18 hrs, Volume= 0.463 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 62.70' @ 12.18 hrs Surf.Area= 13 sf Storage= 44 cf

Plug-Flow detention time= 1.3 min calculated for 0.462 af (100% of inflow)

Center-of-Mass det. time= 0.7 min ( 770.7 - 770.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	59.30'	197 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.30	13	0	0
61.30	13	26	26
64.60	13	43	69
65.10	500	128	197

Device	Routing	Invert	Outlet Devices
#1	Primary	61.30'	<b>15.0" Round CMP_Round 15"</b> L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.30' / 60.60' S= 0.0259 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=5.14 cfs @ 12.18 hrs HW=62.68' (Free Discharge)

↑1=CMP\_Round 15" (Inlet Controls 5.14 cfs @ 4.19 fps)

**294 York Street SWA EXT**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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**Summary for Pond 3P: York Street Catch Basin #3**

Inflow Area = 1.371 ac, 21.90% Impervious, Inflow Depth > 4.30" for 25 YEAR STORM event  
 Inflow = 5.47 cfs @ 12.17 hrs, Volume= 0.492 af  
 Outflow = 5.47 cfs @ 12.17 hrs, Volume= 0.491 af, Atten= 0%, Lag= 0.1 min  
 Primary = 5.47 cfs @ 12.17 hrs, Volume= 0.491 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 61.18' @ 12.17 hrs Surf.Area= 13 sf Storage= 45 cf

Plug-Flow detention time= 1.3 min calculated for 0.491 af (100% of inflow)  
 Center-of-Mass det. time= 0.6 min ( 769.5 - 768.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	57.70'	218 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.70	13	0	0
59.70	13	26	26
64.60	13	64	90
65.10	500	128	218

Device	Routing	Invert	Outlet Devices
#1	Primary	59.70'	<b>15.0" Round CMP_Round 15"</b> L= 121.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 59.70' / 54.70' S= 0.0413 ' S= 0.0413 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=5.39 cfs @ 12.17 hrs HW=61.16' (Free Discharge)  
 ↑1=CMP\_Round 15" (Inlet Controls 5.39 cfs @ 4.40 fps)

**Summary for Link AP1: On-Site Wetland Complex**

Inflow Area = 2.143 ac, 28.09% Impervious, Inflow Depth > 4.28" for 25 YEAR STORM event  
 Inflow = 8.51 cfs @ 12.11 hrs, Volume= 0.765 af  
 Primary = 8.51 cfs @ 12.11 hrs, Volume= 0.765 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**294 York Street SWA EXT**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>6.50"  
Flow Length=256' Tc=13.4 min CN=86 Runoff=7.43 cfs 0.664 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,504 sf 98.66% Impervious Runoff Depth>7.66"  
Flow Length=134' Tc=6.0 min CN=98 Runoff=0.66 cfs 0.051 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,828 sf 87.41% Impervious Runoff Depth>7.53"  
Flow Length=82' Tc=6.0 min CN=96 Runoff=0.53 cfs 0.041 af

**Subcatchment 4S: Subject Parcel Direct** Runoff Area=15,914 sf 37.32% Impervious Runoff Depth>6.51"  
Flow Length=65' Slope=0.0650 '/' Tc=6.2 min CN=86 Runoff=2.74 cfs 0.198 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=17,728 sf 40.64% Impervious Runoff Depth>6.62"  
Flow Length=92' Tc=4.3 min CN=87 Runoff=3.29 cfs 0.225 af

**Reach 1R: CB #3 Daylight Reach to** Avg. Flow Depth=0.24' Max Vel=4.04 fps Inflow=8.63 cfs 0.754 af  
n=0.030 L=40.0' S=0.0525 '/' Capacity=243.23 cfs Outflow=8.49 cfs 0.754 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=67.57' Storage=188 cf Inflow=7.43 cfs 0.664 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/' Outflow=8.09 cfs 0.663 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=63.94' Storage=60 cf Inflow=8.47 cfs 0.714 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/' Outflow=8.39 cfs 0.714 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=62.46' Storage=62 cf Inflow=8.70 cfs 0.754 af  
15.0" Round Culvert n=0.013 L=121.0' S=0.0413 '/' Outflow=8.63 cfs 0.754 af

**Link AP1: On-Site Wetland Complex** Inflow=12.49 cfs 1.176 af  
Primary=12.49 cfs 1.176 af

**Total Runoff Area = 2.143 ac Runoff Volume = 1.178 af Average Runoff Depth = 6.60"**  
**71.91% Pervious = 1.541 ac 28.09% Impervious = 0.602 ac**

**294 York Street SWA EXT**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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**Summary for Subcatchment 1S: Abutting Drainage to CB #1**

Runoff = 7.43 cfs @ 12.18 hrs, Volume= 0.664 af, Depth&gt; 6.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
38,424	82	Woods/grass comb., Fair, HSG D
7,819	96	Gravel surface, HSG D
5,049	98	Paved parking, HSG D
2,104	98	Roofs, HSG D
53,396	86	Weighted Average
46,243		86.60% Pervious Area
7,153		13.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	99	0.0808	0.14		<b>Sheet Flow, SF 1</b>
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.1	107	0.1070	1.64		<b>Shallow Concentrated Flow, SCF 1</b>
					Woodland Kv= 5.0 fps
0.3	50	0.0150	2.49		<b>Shallow Concentrated Flow, SCF 2</b>
					Paved Kv= 20.3 fps
13.4	256	Total			

**Summary for Subcatchment 2S: Roadside Drainage to CB #2**

Runoff = 0.66 cfs @ 12.09 hrs, Volume= 0.051 af, Depth&gt; 7.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
47	80	>75% Grass cover, Good, HSG D
3,457	98	Paved parking, HSG D
3,504	98	Weighted Average
47		1.34% Pervious Area
3,457		98.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	134		0.37		<b>Direct Entry, SC 2</b>

**Summary for Subcatchment 3S: Roadside Drainage to CB #3**

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 0.041 af, Depth&gt; 7.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

**294 York Street SWA EXT**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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Area (sf)	CN	Description
356	80	>75% Grass cover, Good, HSG D
2,472	98	Paved parking, HSG D
2,828	96	Weighted Average
356		12.59% Pervious Area
2,472		87.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	82		0.23		<b>Direct Entry, SC 3</b>

**Summary for Subcatchment 4S: Subject Parcel Direct Drainage to Wetlands**

Runoff = 2.74 cfs @ 12.09 hrs, Volume= 0.198 af, Depth&gt; 6.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
8,568	80	>75% Grass cover, Good, HSG D
2,432	98	Paved parking, HSG D
3,476	98	Roofs, HSG D
1,407	77	Brush, Fair, HSG D
31	98	Unconnected pavement, HSG D
15,914	86	Weighted Average
9,975		62.68% Pervious Area
5,939		37.32% Impervious Area
31		0.52% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	65	0.0650	0.17		<b>Sheet Flow, SF 1</b> Grass: Dense n= 0.240 P2= 3.30"

**Summary for Subcatchment 5S: Abutting Parcel Direct Drainage to Wetlands**

Runoff = 3.29 cfs @ 12.06 hrs, Volume= 0.225 af, Depth&gt; 6.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
7,311	80	>75% Grass cover, Good, HSG D
2,944	98	Paved parking, HSG D
4,260	98	Roofs, HSG D
3,213	77	Brush, Fair, HSG D
17,728	87	Weighted Average
10,524		59.36% Pervious Area
7,204		40.64% Impervious Area

**294 York Street SWA EXT**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	56	0.0535	0.23		<b>Sheet Flow, SF1</b>
					Grass: Short n= 0.150 P2= 3.30"
0.2	36	0.1210	2.43		<b>Shallow Concentrated Flow, SCF1</b>
					Short Grass Pasture Kv= 7.0 fps
4.3	92	Total			

**Summary for Reach 1R: CB #3 Daylight Reach to Wetlands**

Inflow Area = 1.371 ac, 21.90% Impervious, Inflow Depth > 6.60" for 100 YEAR STORM event  
 Inflow = 8.63 cfs @ 12.20 hrs, Volume= 0.754 af  
 Outflow = 8.49 cfs @ 12.20 hrs, Volume= 0.754 af, Atten= 2%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 4.04 fps, Min. Travel Time= 0.2 min  
 Avg. Velocity = 1.29 fps, Avg. Travel Time= 0.5 min

Peak Storage= 85 cf @ 12.20 hrs  
 Average Depth at Peak Storage= 0.24'  
 Bank-Full Depth= 1.50' Flow Area= 21.0 sf, Capacity= 243.23 cfs

8.00' x 1.50' deep channel, n= 0.030 Earth, grassed & winding  
 Side Slope Z-value= 4.0 ' ' Top Width= 20.00'  
 Length= 40.0' Slope= 0.0525 ' '  
 Inlet Invert= 54.70', Outlet Invert= 52.60'

**Summary for Pond 1P: York Street Catch Basin #1**

Inflow Area = 1.226 ac, 13.40% Impervious, Inflow Depth > 6.50" for 100 YEAR STORM event  
 Inflow = 7.43 cfs @ 12.18 hrs, Volume= 0.664 af  
 Outflow = 8.09 cfs @ 12.20 hrs, Volume= 0.663 af, Atten= 0%, Lag= 1.0 min  
 Primary = 8.09 cfs @ 12.20 hrs, Volume= 0.663 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 67.57' @ 12.20 hrs Surf.Area= 500 sf Storage= 188 cf

Plug-Flow detention time= 1.0 min calculated for 0.661 af (100% of inflow)  
 Center-of-Mass det. time= 0.6 min ( 763.2 - 762.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	60.50'	188 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)



**294 York Street SWA EXT**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.50	13	0	0
62.50	13	26	26
65.10	13	34	60
65.60	500	128	188

Device	Routing	Invert	Outlet Devices
#1	Primary	62.50'	<b>12.0" Round CMP_Round 12"</b> L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.50' / 61.60' S= 0.0273 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

**Primary OutFlow** Max=7.98 cfs @ 12.20 hrs HW=67.45' (Free Discharge)

↑1=CMP\_Round 12" (Inlet Controls 7.98 cfs @ 10.16 fps)

**Summary for Pond 2P: York Street Catch Basin #2**

Inflow Area = 1.306 ac, 18.65% Impervious, Inflow Depth > 6.56" for 100 YEAR STORM event  
Inflow = 8.47 cfs @ 12.19 hrs, Volume= 0.714 af  
Outflow = 8.39 cfs @ 12.20 hrs, Volume= 0.714 af, Atten= 1%, Lag= 0.1 min  
Primary = 8.39 cfs @ 12.20 hrs, Volume= 0.714 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 63.94' @ 12.20 hrs Surf.Area= 13 sf Storage= 60 cf

Plug-Flow detention time= 0.9 min calculated for 0.711 af (100% of inflow)

Center-of-Mass det. time= 0.5 min ( 761.4 - 761.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	59.30'	197 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.30	13	0	0
61.30	13	26	26
64.60	13	43	69
65.10	500	128	197

Device	Routing	Invert	Outlet Devices
#1	Primary	61.30'	<b>15.0" Round CMP_Round 15"</b> L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.30' / 60.60' S= 0.0259 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=8.28 cfs @ 12.20 hrs HW=63.89' (Free Discharge)

↑1=CMP\_Round 15" (Inlet Controls 8.28 cfs @ 6.75 fps)

**294 York Street SWA EXT**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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**Summary for Pond 3P: York Street Catch Basin #3**

Inflow Area = 1.371 ac, 21.90% Impervious, Inflow Depth > 6.60" for 100 YEAR STORM event  
 Inflow = 8.70 cfs @ 12.19 hrs, Volume= 0.754 af  
 Outflow = 8.63 cfs @ 12.20 hrs, Volume= 0.754 af, Atten= 1%, Lag= 0.1 min  
 Primary = 8.63 cfs @ 12.20 hrs, Volume= 0.754 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 62.46' @ 12.20 hrs Surf.Area= 13 sf Storage= 62 cf

Plug-Flow detention time= 0.9 min calculated for 0.754 af (100% of inflow)  
 Center-of-Mass det. time= 0.4 min ( 760.5 - 760.1 )

Volume	Invert	Avail.Storage	Storage Description
#1	57.70'	218 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.70	13	0	0
59.70	13	26	26
64.60	13	64	90
65.10	500	128	218

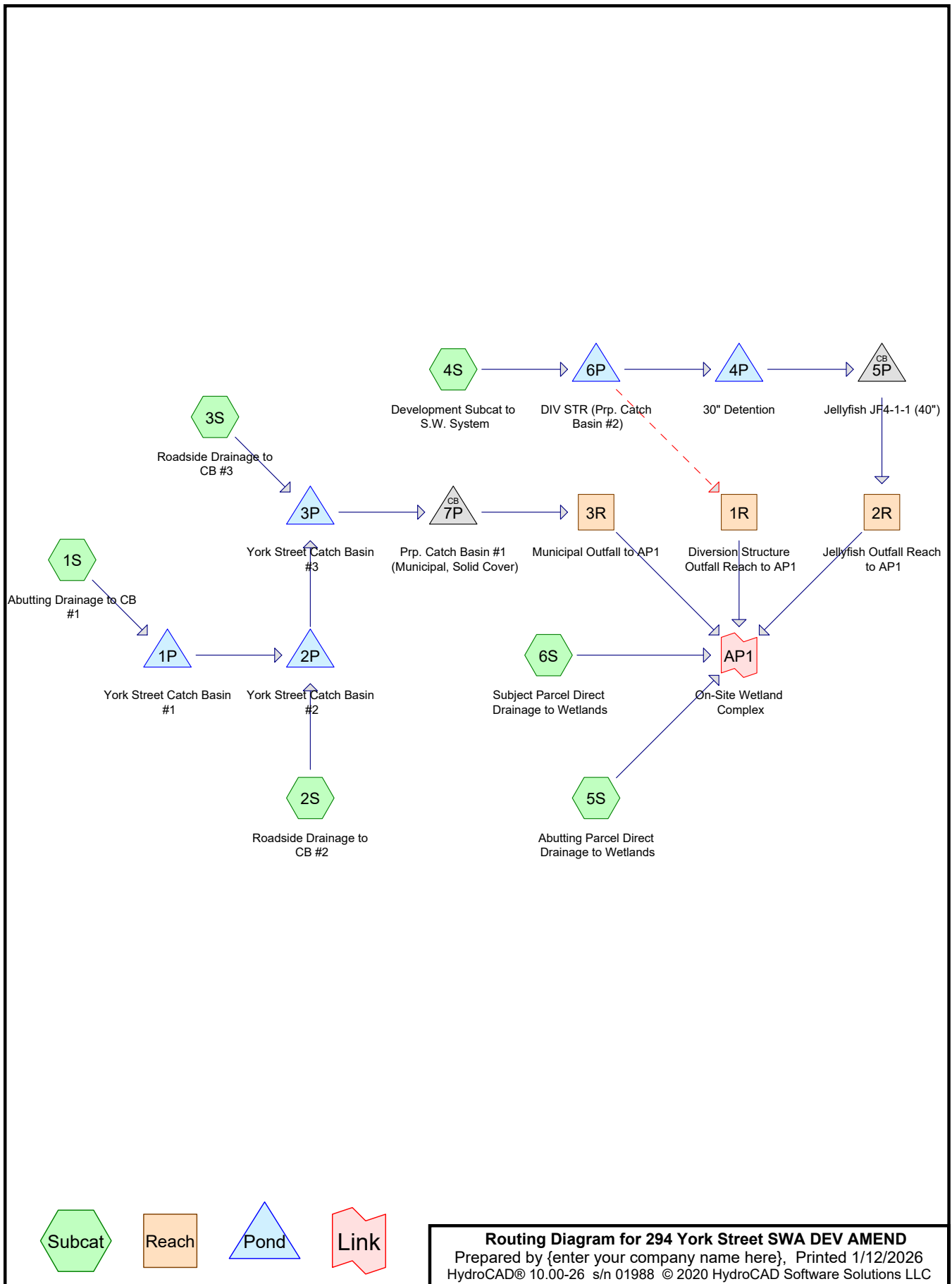
Device	Routing	Invert	Outlet Devices
#1	Primary	59.70'	<b>15.0" Round CMP_Round 15"</b> L= 121.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 59.70' / 54.70' S= 0.0413 ' S= 0.0413 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=8.52 cfs @ 12.20 hrs HW=62.40' (Free Discharge)  
 ↑1=CMP\_Round 15" (Inlet Controls 8.52 cfs @ 6.94 fps)

**Summary for Link AP1: On-Site Wetland Complex**

Inflow Area = 2.143 ac, 28.09% Impervious, Inflow Depth > 6.59" for 100 YEAR STORM event  
 Inflow = 12.49 cfs @ 12.11 hrs, Volume= 1.176 af  
 Primary = 12.49 cfs @ 12.11 hrs, Volume= 1.176 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



## 294 York Street SWA DEV AMEND

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### Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.224	80	>75% Grass cover, Good, HSG D (2S, 3S, 4S, 5S, 6S)
0.106	77	Brush, Fair, HSG D (5S, 6S)
0.179	96	Gravel surface, HSG D (1S)
0.462	98	Paved parking, HSG D (1S, 2S, 3S, 4S, 5S, 6S)
0.289	98	Roofs, HSG D (1S, 2S, 4S, 5S, 6S)
0.882	82	Woods/grass comb., Fair, HSG D (1S)
<b>2.143</b>	<b>88</b>	<b>TOTAL AREA</b>

**294 York Street SWA DEV AMEND**

Type III 24-hr 2 YEAR STORM Rainfall=3.21"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>1.78"  
Flow Length=256' Tc=13.4 min CN=WQ Runoff=2.07 cfs 0.182 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,120 sf 97.56% Impervious Runoff Depth>2.75"  
Flow Length=134' Tc=6.0 min CN=WQ Runoff=0.22 cfs 0.016 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,888 sf 87.67% Impervious Runoff Depth>2.60"  
Flow Length=82' Tc=6.0 min CN=WQ Runoff=0.19 cfs 0.014 af

**Subcatchment 4S: Development Subcat to** Runoff Area=13,404 sf 86.33% Impervious Runoff Depth>2.58"  
Flow Length=136' Tc=7.2 min CN=WQ Runoff=0.85 cfs 0.066 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=16,325 sf 43.38% Impervious Runoff Depth>1.91"  
Flow Length=92' Tc=4.3 min CN=WQ Runoff=0.87 cfs 0.060 af

**Subcatchment 6S: Subject Parcel Direct** Runoff Area=4,236 sf 31.80% Impervious Runoff Depth>1.71"  
Flow Length=58' Slope=0.0517 '/' Tc=4.3 min CN=WQ Runoff=0.20 cfs 0.014 af

**Reach 1R: Diversion Structure Outfall** Avg. Flow Depth=0.14' Max Vel=0.08 fps Inflow=0.73 cfs 0.005 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=0.15 cfs 0.005 af

**Reach 2R: Jellyfish Outfall Reach to AP1** Avg. Flow Depth=0.25' Max Vel=0.11 fps Inflow=1.06 cfs 0.061 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=0.42 cfs 0.060 af

**Reach 3R: Municipal Outfall to AP1** Avg. Flow Depth=0.56' Max Vel=0.18 fps Inflow=2.34 cfs 0.211 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=2.11 cfs 0.210 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=63.31' Storage=36 cf Inflow=2.07 cfs 0.182 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/' Outflow=2.07 cfs 0.181 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=62.04' Storage=36 cf Inflow=2.21 cfs 0.198 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/' Outflow=2.21 cfs 0.197 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=60.47' Storage=36 cf Inflow=2.34 cfs 0.212 af  
15.0" Round Culvert n=0.013 L=69.5' S=0.0439 '/' Outflow=2.34 cfs 0.211 af

**Pond 4P: 30" Detention** Peak Elev=77.65' Storage=0.008 af Inflow=0.88 cfs 0.061 af  
Outflow=1.06 cfs 0.061 af

**Pond 5P: Jellyfish JF4-1-1 (40")** Peak Elev=54.95' Inflow=1.06 cfs 0.061 af  
Outflow=1.06 cfs 0.061 af

**Pond 6P: DIV STR (Prp. Catch Basin #2)** Peak Elev=56.16' Storage=41 cf Inflow=0.85 cfs 0.066 af  
Primary=0.88 cfs 0.061 af Secondary=0.73 cfs 0.005 af Outflow=0.81 cfs 0.066 af

**Pond 7P: Prp. Catch Basin #1 (Municipal, Solid Cover)** Peak Elev=57.32' Inflow=2.34 cfs 0.211 af  
15.0" Round Culvert n=0.013 L=68.5' S=0.0190 '/' Outflow=2.34 cfs 0.211 af

**294 York Street SWA DEV AMEND***Type III 24-hr 2 YEAR STORM Rainfall=3.21"*

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**Link AP1: On-Site Wetland Complex**

Inflow=3.04 cfs 0.348 af

Primary=3.04 cfs 0.348 af

**Total Runoff Area = 2.143 ac   Runoff Volume = 0.352 af   Average Runoff Depth = 1.97"**  
**64.95% Pervious = 1.392 ac   35.05% Impervious = 0.751 ac**

**294 York Street SWA DEV AMEND**

Type III 24-hr 10 YEAR STORM Rainfall=4.80"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>3.11"  
Flow Length=256' Tc=13.4 min CN=WQ Runoff=3.60 cfs 0.318 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,120 sf 97.56% Impervious Runoff Depth>4.20"  
Flow Length=134' Tc=6.0 min CN=WQ Runoff=0.33 cfs 0.025 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,888 sf 87.67% Impervious Runoff Depth>4.03"  
Flow Length=82' Tc=6.0 min CN=WQ Runoff=0.29 cfs 0.022 af

**Subcatchment 4S: Development Subcat to** Runoff Area=13,404 sf 86.33% Impervious Runoff Depth>4.00"  
Flow Length=136' Tc=7.2 min CN=WQ Runoff=1.31 cfs 0.103 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=16,325 sf 43.38% Impervious Runoff Depth>3.23"  
Flow Length=92' Tc=4.3 min CN=WQ Runoff=1.47 cfs 0.101 af

**Subcatchment 6S: Subject Parcel Direct** Runoff Area=4,236 sf 31.80% Impervious Runoff Depth>2.99"  
Flow Length=58' Slope=0.0517 '/' Tc=4.3 min CN=WQ Runoff=0.36 cfs 0.024 af

**Reach 1R: Diversion Structure Outfall** Avg. Flow Depth=0.31' Max Vel=0.12 fps Inflow=1.39 cfs 0.017 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=0.64 cfs 0.017 af

**Reach 2R: Jellyfish Outfall Reach to AP1** Avg. Flow Depth=0.28' Max Vel=0.12 fps Inflow=1.12 cfs 0.085 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=0.52 cfs 0.084 af

**Reach 3R: Municipal Outfall to AP1** Avg. Flow Depth=0.73' Max Vel=0.20 fps Inflow=4.02 cfs 0.363 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=3.68 cfs 0.361 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=63.91' Storage=44 cf Inflow=3.60 cfs 0.318 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/' Outflow=3.61 cfs 0.317 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=62.34' Storage=40 cf Inflow=3.81 cfs 0.342 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/' Outflow=3.81 cfs 0.342 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=60.79' Storage=40 cf Inflow=4.02 cfs 0.364 af  
15.0" Round Culvert n=0.013 L=69.5' S=0.0439 '/' Outflow=4.02 cfs 0.363 af

**Pond 4P: 30" Detention** Peak Elev=80.25' Storage=0.008 af Inflow=1.20 cfs 0.085 af  
Outflow=1.12 cfs 0.085 af

**Pond 5P: Jellyfish JF4-1-1 (40")** Peak Elev=54.97' Inflow=1.12 cfs 0.085 af  
Outflow=1.12 cfs 0.085 af

**Pond 6P: DIV STR (Prp. Catch Basin #2)** Peak Elev=56.30' Storage=43 cf Inflow=1.31 cfs 0.103 af  
Primary=1.20 cfs 0.085 af Secondary=1.39 cfs 0.017 af Outflow=1.29 cfs 0.102 af

**Pond 7P: Prp. Catch Basin #1 (Municipal, Solid Cover)** Peak Elev=57.64' Inflow=4.02 cfs 0.363 af  
15.0" Round Culvert n=0.013 L=68.5' S=0.0190 '/' Outflow=4.02 cfs 0.363 af



**294 York Street SWA DEV AMEND***Type III 24-hr 10 YEAR STORM Rainfall=4.80"*

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**Link AP1: On-Site Wetland Complex**

Inflow=5.42 cfs 0.588 af

Primary=5.42 cfs 0.588 af

**Total Runoff Area = 2.143 ac   Runoff Volume = 0.593 af   Average Runoff Depth = 3.32"**  
**64.95% Pervious = 1.392 ac   35.05% Impervious = 0.751 ac**

**294 York Street SWA DEV AMEND**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>4.20"  
Flow Length=256' Tc=13.4 min CN=WQ Runoff=4.84 cfs 0.429 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,120 sf 97.56% Impervious Runoff Depth>5.33"  
Flow Length=134' Tc=6.0 min CN=WQ Runoff=0.41 cfs 0.032 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,888 sf 87.67% Impervious Runoff Depth>5.15"  
Flow Length=82' Tc=6.0 min CN=WQ Runoff=0.37 cfs 0.028 af

**Subcatchment 4S: Development Subcat to** Runoff Area=13,404 sf 86.33% Impervious Runoff Depth>5.13"  
Flow Length=136' Tc=7.2 min CN=WQ Runoff=1.67 cfs 0.132 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=16,325 sf 43.38% Impervious Runoff Depth>4.31"  
Flow Length=92' Tc=4.3 min CN=WQ Runoff=1.96 cfs 0.135 af

**Subcatchment 6S: Subject Parcel Direct** Runoff Area=4,236 sf 31.80% Impervious Runoff Depth>4.05"  
Flow Length=58' Slope=0.0517 '/' Tc=4.3 min CN=WQ Runoff=0.48 cfs 0.033 af

**Reach 1R: Diversion Structure Outfall** Avg. Flow Depth=0.38' Max Vel=0.14 fps Inflow=1.59 cfs 0.028 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=0.92 cfs 0.028 af

**Reach 2R: Jellyfish Outfall Reach to AP1** Avg. Flow Depth=0.29' Max Vel=0.12 fps Inflow=1.04 cfs 0.103 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=0.55 cfs 0.102 af

**Reach 3R: Municipal Outfall to AP1** Avg. Flow Depth=0.84' Max Vel=0.22 fps Inflow=5.36 cfs 0.488 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=4.96 cfs 0.486 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=64.64' Storage=54 cf Inflow=4.84 cfs 0.429 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/' Outflow=4.84 cfs 0.429 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=62.67' Storage=44 cf Inflow=5.10 cfs 0.461 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/' Outflow=5.11 cfs 0.460 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=61.15' Storage=45 cf Inflow=5.36 cfs 0.489 af  
15.0" Round Culvert n=0.013 L=69.5' S=0.0439 '/' Outflow=5.36 cfs 0.488 af

**Pond 4P: 30" Detention** Peak Elev=76.75' Storage=0.008 af Inflow=1.62 cfs 0.103 af  
Outflow=1.04 cfs 0.103 af

**Pond 5P: Jellyfish JF4-1-1 (40")** Peak Elev=54.96' Inflow=1.04 cfs 0.103 af  
Outflow=1.04 cfs 0.103 af

**Pond 6P: DIV STR (Prp. Catch Basin #2)** Peak Elev=56.26' Storage=42 cf Inflow=1.67 cfs 0.132 af  
Primary=1.62 cfs 0.103 af Secondary=1.59 cfs 0.028 af Outflow=1.63 cfs 0.131 af

**Pond 7P: Prp. Catch Basin #1 (Municipal, Solid Cover)** Peak Elev=58.00' Inflow=5.36 cfs 0.488 af  
15.0" Round Culvert n=0.013 L=68.5' S=0.0190 '/' Outflow=5.36 cfs 0.488 af

**294 York Street SWA DEV AMEND***Type III 24-hr 25 YEAR STORM Rainfall=6.05"*

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**Link AP1: On-Site Wetland Complex**

Inflow=7.45 cfs 0.783 af

Primary=7.45 cfs 0.783 af

**Total Runoff Area = 2.143 ac   Runoff Volume = 0.789 af   Average Runoff Depth = 4.42"**  
**64.95% Pervious = 1.392 ac   35.05% Impervious = 0.751 ac**

**Summary for Subcatchment 1S: Abutting Drainage to CB #1**

Runoff = 4.84 cfs @ 12.18 hrs, Volume= 0.429 af, Depth> 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
38,424	82	Woods/grass comb., Fair, HSG D
7,819	96	Gravel surface, HSG D
5,049	98	Paved parking, HSG D
2,104	98	Roofs, HSG D
53,396		Weighted Average
46,243		86.60% Pervious Area
7,153		13.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	99	0.0808	0.14		<b>Sheet Flow, SF 1</b>
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.1	107	0.1070	1.64		<b>Shallow Concentrated Flow, SCF 1</b>
					Woodland Kv= 5.0 fps
0.3	50	0.0150	2.49		<b>Shallow Concentrated Flow, SCF 2</b>
					Paved Kv= 20.3 fps
13.4	256	Total			

**Summary for Subcatchment 2S: Roadside Drainage to CB #2**

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 0.032 af, Depth> 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
76	80	>75% Grass cover, Good, HSG D
2,533	98	Paved parking, HSG D
511	98	Roofs, HSG D
3,120		Weighted Average
76		2.44% Pervious Area
3,044		97.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	134		0.37		<b>Direct Entry, SC 2</b>

### Summary for Subcatchment 3S: Roadside Drainage to CB #3

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 0.028 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
356	80	>75% Grass cover, Good, HSG D
2,532	98	Paved parking, HSG D
2,888		Weighted Average
356		12.33% Pervious Area
2,532		87.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	82		0.23		Direct Entry, SC 3

### Summary for Subcatchment 4S: Development Subcat to S.W. System

Runoff = 1.67 cfs @ 12.10 hrs, Volume= 0.132 af, Depth> 5.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
1,832	80	>75% Grass cover, Good, HSG D
7,095	98	Paved parking, HSG D
4,477	98	Roofs, HSG D
13,404		Weighted Average
1,832		13.67% Pervious Area
11,572		86.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	67	0.0223	0.17		Sheet Flow, SF 1
					Grass: Short n= 0.150 P2= 3.30"
0.5	69	0.0150	2.49		Shallow Concentrated Flow, SCF1
					Paved Kv= 20.3 fps
7.2	136	Total			

### Summary for Subcatchment 5S: Abutting Parcel Direct Drainage to Wetlands

Runoff = 1.96 cfs @ 12.06 hrs, Volume= 0.135 af, Depth> 4.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

**294 York Street SWA DEV AMEND**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Area (sf)	CN	Description
6,181	80	>75% Grass cover, Good, HSG D
2,890	98	Paved parking, HSG D
4,192	98	Roofs, HSG D
3,062	77	Brush, Fair, HSG D
16,325		Weighted Average
9,243		56.62% Pervious Area
7,082		43.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	56	0.0535	0.23		<b>Sheet Flow, SF1</b> Grass: Short n= 0.150 P2= 3.30"
0.2	36	0.1210	2.43		<b>Shallow Concentrated Flow, SCF1</b> Short Grass Pasture Kv= 7.0 fps
4.3	92	Total			

**Summary for Subcatchment 6S: Subject Parcel Direct Drainage to Wetlands**

Runoff = 0.48 cfs @ 12.06 hrs, Volume= 0.033 af, Depth&gt; 4.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 YEAR STORM Rainfall=6.05"

Area (sf)	CN	Description
1,331	80	>75% Grass cover, Good, HSG D
1,313	98	Roofs, HSG D
1,558	77	Brush, Fair, HSG D
34	98	Paved parking, HSG D
4,236		Weighted Average
2,889		68.20% Pervious Area
1,347		31.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	58	0.0517	0.23		<b>Sheet Flow, SF1</b> Grass: Short n= 0.150 P2= 3.30"

**Summary for Reach 1R: Diversion Structure Outfall Reach to AP1**

Inflow = 1.59 cfs @ 12.04 hrs, Volume= 0.028 af

Outflow = 0.92 cfs @ 12.21 hrs, Volume= 0.028 af, Atten= 42%, Lag= 10.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 0.14 fps, Min. Travel Time= 7.9 min

Avg. Velocity = 0.03 fps, Avg. Travel Time= 35.9 min

Peak Storage= 433 cf @ 12.21 hrs

Average Depth at Peak Storage= 0.38'

Bank-Full Depth= 1.50' Flow Area= 60.0 sf, Capacity= 18.44 cfs

10.00' x 1.50' deep channel, n= 0.240 Sheet flow over Dense Grass  
Side Slope Z-value= 20.0 '/' Top Width= 70.00'  
Length= 66.0' Slope= 0.0030 '/'  
Inlet Invert= 52.80', Outlet Invert= 52.60'



### Summary for Reach 2R: Jellyfish Outfall Reach to AP1

Inflow Area = 0.308 ac, 86.33% Impervious, Inflow Depth > 4.02" for 25 YEAR STORM event  
Inflow = 1.04 cfs @ 12.30 hrs, Volume= 0.103 af  
Outflow = 0.55 cfs @ 12.16 hrs, Volume= 0.102 af, Atten= 47%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.12 fps, Min. Travel Time= 9.1 min  
Avg. Velocity = 0.06 fps, Avg. Travel Time= 17.9 min

Peak Storage= 301 cf @ 12.16 hrs  
Average Depth at Peak Storage= 0.29'  
Bank-Full Depth= 1.50' Flow Area= 60.0 sf, Capacity= 18.44 cfs

10.00' x 1.50' deep channel, n= 0.240 Sheet flow over Dense Grass  
Side Slope Z-value= 20.0 '/' Top Width= 70.00'  
Length= 66.0' Slope= 0.0030 '/'  
Inlet Invert= 52.80', Outlet Invert= 52.60'



### Summary for Reach 3R: Municipal Outfall to AP1

Inflow Area = 1.364 ac, 21.43% Impervious, Inflow Depth > 4.29" for 25 YEAR STORM event  
Inflow = 5.36 cfs @ 12.17 hrs, Volume= 0.488 af  
Outflow = 4.96 cfs @ 12.24 hrs, Volume= 0.486 af, Atten= 7%, Lag= 3.7 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.22 fps, Min. Travel Time= 5.0 min  
Avg. Velocity = 0.09 fps, Avg. Travel Time= 11.8 min

Peak Storage= 1,492 cf @ 12.24 hrs  
Average Depth at Peak Storage= 0.84'  
Bank-Full Depth= 1.50' Flow Area= 60.0 sf, Capacity= 18.44 cfs



**294 York Street SWA DEV AMEND**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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10.00' x 1.50' deep channel, n= 0.240 Sheet flow over Dense Grass

Side Slope Z-value= 20.0 '/' Top Width= 70.00'

Length= 66.0' Slope= 0.0030 '/'

Inlet Invert= 52.80', Outlet Invert= 52.60'

**Summary for Pond 1P: York Street Catch Basin #1**

Inflow Area = 1.226 ac, 13.40% Impervious, Inflow Depth > 4.20" for 25 YEAR STORM event  
 Inflow = 4.84 cfs @ 12.18 hrs, Volume= 0.429 af  
 Outflow = 4.84 cfs @ 12.19 hrs, Volume= 0.429 af, Atten= 0%, Lag= 0.2 min  
 Primary = 4.84 cfs @ 12.19 hrs, Volume= 0.429 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 64.64' @ 12.19 hrs Surf.Area= 13 sf Storage= 54 cf

Plug-Flow detention time= 1.5 min calculated for 0.429 af (100% of inflow)

Center-of-Mass det. time= 0.8 min ( 768.7 - 768.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	60.50'	188 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.50	13	0	0
62.50	13	26	26
65.10	13	34	60
65.60	500	128	188

Device	Routing	Invert	Outlet Devices
#1	Primary	62.50'	<b>12.0" Round CMP_Round 12"</b> L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.50' / 61.60' S= 0.0273 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

**Primary OutFlow** Max=4.78 cfs @ 12.19 hrs HW=64.60' TW=62.65' (Dynamic Tailwater)

↑1=CMP\_Round 12" (Inlet Controls 4.78 cfs @ 6.09 fps)

**Summary for Pond 2P: York Street Catch Basin #2**

Inflow Area = 1.297 ac, 18.04% Impervious, Inflow Depth > 4.26" for 25 YEAR STORM event  
 Inflow = 5.10 cfs @ 12.18 hrs, Volume= 0.461 af  
 Outflow = 5.11 cfs @ 12.18 hrs, Volume= 0.460 af, Atten= 0%, Lag= 0.1 min  
 Primary = 5.11 cfs @ 12.18 hrs, Volume= 0.460 af

**294 York Street SWA DEV AMEND**

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Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 62.67' @ 12.18 hrs Surf.Area= 13 sf Storage= 44 cf

Plug-Flow detention time= 1.3 min calculated for 0.458 af (100% of inflow)

Center-of-Mass det. time= 0.7 min ( 767.0 - 766.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	59.30'	197 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.30	13	0	0
61.30	13	26	26
64.60	13	43	69
65.10	500	128	197

Device	Routing	Invert	Outlet Devices
#1	Primary	61.30'	<b>15.0" Round CMP_Round 15"</b> L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.30' / 60.60' S= 0.0259 ' S= 0.0259 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=5.04 cfs @ 12.18 hrs HW=62.65' TW=61.12' (Dynamic Tailwater)

↑1=CMP\_Round 15" (Inlet Controls 5.04 cfs @ 4.11 fps)

**Summary for Pond 3P: York Street Catch Basin #3**

Inflow Area = 1.364 ac, 21.43% Impervious, Inflow Depth > 4.30" for 25 YEAR STORM event  
 Inflow = 5.36 cfs @ 12.17 hrs, Volume= 0.489 af  
 Outflow = 5.36 cfs @ 12.17 hrs, Volume= 0.488 af, Atten= 0%, Lag= 0.1 min  
 Primary = 5.36 cfs @ 12.17 hrs, Volume= 0.488 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 61.15' @ 12.17 hrs Surf.Area= 13 sf Storage= 45 cf

Plug-Flow detention time= 1.3 min calculated for 0.488 af (100% of inflow)

Center-of-Mass det. time= 0.6 min ( 766.0 - 765.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	57.70'	218 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.70	13	0	0
59.70	13	26	26
64.60	13	64	90
65.10	500	128	218

Device	Routing	Invert	Outlet Devices
#1	Primary	59.70'	<b>15.0" Round CMP_Round 15"</b> L= 69.5' CPP, square edge headwall, Ke= 0.500

**294 York Street SWA DEV AMEND**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Inlet / Outlet Invert= 59.70' / 56.65' S= 0.0439 ' S= 0.0439 ' Cc= 0.900  
 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=5.29 cfs @ 12.17 hrs HW=61.13' TW=57.98' (Dynamic Tailwater)

↑ **1=CMP\_Round 15"** (Inlet Controls 5.29 cfs @ 4.31 fps)

### Summary for Pond 4P: 30" Detention

Inflow Area = 0.308 ac, 86.33% Impervious, Inflow Depth > 4.03" for 25 YEAR STORM event  
 Inflow = 1.62 cfs @ 12.10 hrs, Volume= 0.103 af  
 Outflow = 1.04 cfs @ 12.30 hrs, Volume= 0.103 af, Atten= 36%, Lag= 11.9 min  
 Primary = 1.04 cfs @ 12.30 hrs, Volume= 0.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 76.75' @ 12.30 hrs Surf.Area= 0.007 ac Storage= 0.008 af

Plug-Flow detention time= 16.3 min calculated for 0.103 af (99% of inflow)  
 Center-of-Mass det. time= 15.3 min ( 760.7 - 745.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	53.50'	0.000 af	<b>8.25'W x 38.50'L x 2.50'H Field A</b> 0.018 af Overall - 0.008 af Embedded = 0.010 af x 0.0% Voids
#2A	53.50'	0.008 af	<b>CMP Round 30 x 2 Inside #1</b> Effective Size= 30.0"W x 30.0"H => 4.91 sf x 20.00'L = 98.2 cf Overall Size= 30.0"W x 30.0"H x 20.00'L Row Length Adjustment= +14.00' x 4.91 sf x 2 rows 6.25' Header x 4.91 sf x 1 = 30.7 cf Inside
		0.008 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 2	53.50'	<b>2.9" Vert. Orifice/Grate</b> C= 0.600
#2	Primary	53.50'	<b>12.0" Round Culvert</b> L= 5.0' CMP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 53.50' / 53.47' S= 0.0060 ' S= 0.0060 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

**Primary OutFlow** Max=1.02 cfs @ 12.30 hrs HW=76.21' TW=54.94' (Dynamic Tailwater)

↑ **2=Culvert** (Passes 1.02 cfs of 15.39 cfs potential flow)

↑ **1=Orifice/Grate** (Orifice Controls 1.02 cfs @ 22.21 fps)

### Summary for Pond 5P: Jellyfish JF4-1-1 (40")

Inflow Area = 0.308 ac, 86.33% Impervious, Inflow Depth > 4.02" for 25 YEAR STORM event  
 Inflow = 1.04 cfs @ 12.30 hrs, Volume= 0.103 af  
 Outflow = 1.04 cfs @ 12.30 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min  
 Primary = 1.04 cfs @ 12.30 hrs, Volume= 0.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**294 York Street SWA DEV AMEND**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Peak Elev= 54.96' @ 12.29 hrs

Device	Routing	Invert	Outlet Devices
#1	Device 2	53.00'	<b>JF4 CSV File</b> Head (feet) 0.00 0.08 0.17 0.25 0.33 0.42 0.50 0.58 0.67 0.75 0.83 0.92 1.00 1.08 1.17 1.25 1.33 1.42 1.50 1.58 1.67 1.75 Disch. (cfs) 0.000 0.003 0.006 0.010 0.013 0.016 0.019 0.031 0.043 0.055 0.067 0.080 0.092 0.104 0.116 0.128 0.140 0.152 0.164 0.176 0.188 0.201
#2	Primary	53.00'	<b>12.0" Round Culvert</b> L= 8.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 53.00' / 52.80' S= 0.0235 ' S= 0.0235 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	54.75'	<b>3.0' long Sharp-Crested Vee/Trap Weir</b> Cv= 2.62 (C= 3.28)

**Primary OutFlow** Max=1.01 cfs @ 12.30 hrs HW=54.94' TW=53.07' (Dynamic Tailwater)

2=Culvert (Passes 1.01 cfs of 4.54 cfs potential flow)

1=JF4 CSV File (Custom Controls 0.20 cfs)

3=Sharp-Crested Vee/Trap Weir (Weir Controls 0.81 cfs @ 1.42 fps)

**Summary for Pond 6P: DIV STR (Prp. Catch Basin #2)**

Inflow Area =	0.308 ac, 86.33% Impervious, Inflow Depth > 5.13" for 25 YEAR STORM event
Inflow =	1.67 cfs @ 12.10 hrs, Volume= 0.132 af
Outflow =	1.63 cfs @ 12.09 hrs, Volume= 0.131 af, Atten= 3%, Lag= 0.0 min
Primary =	1.62 cfs @ 12.10 hrs, Volume= 0.103 af
Secondary =	1.59 cfs @ 12.04 hrs, Volume= 0.028 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 56.26' @ 12.05 hrs Surf.Area= 13 sf Storage= 42 cf

Plug-Flow detention time= 4.6 min calculated for 0.130 af (99% of inflow)

Center-of-Mass det. time= 2.3 min ( 741.7 - 739.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	187 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	13	0	0
55.00	13	26	26
56.00	13	13	39
57.50	13	20	59
58.00	500	128	187

Device	Routing	Invert	Outlet Devices
#1	Primary	55.00'	<b>12.0" Round CMP_Round 12"</b> L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 55.00' / 54.90' S= 0.0083 ' S= 0.0083 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	56.00'	<b>4.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00

**294 York Street SWA DEV AMEND**

Type III 24-hr 25 YEAR STORM Rainfall=6.05"

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Coef. (English) 2.80 2.92 3.08 3.30 3.32

**Primary OutFlow** Max=0.00 cfs @ 12.10 hrs HW=55.82' TW=71.00' (Dynamic Tailwater)↑**1=CMP\_Round 12"** ( Controls 0.00 cfs)**Secondary OutFlow** Max=1.40 cfs @ 12.04 hrs HW=56.25' TW=53.06' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Weir Controls 1.40 cfs @ 1.41 fps)**Summary for Pond 7P: Prp. Catch Basin #1 (Municipal, Solid Cover)**

Inflow Area = 1.364 ac, 21.43% Impervious, Inflow Depth > 4.29" for 25 YEAR STORM event  
Inflow = 5.36 cfs @ 12.17 hrs, Volume= 0.488 af  
Outflow = 5.36 cfs @ 12.17 hrs, Volume= 0.488 af, Atten= 0%, Lag= 0.0 min  
Primary = 5.36 cfs @ 12.17 hrs, Volume= 0.488 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 58.00' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.55'	<b>15.0" Round CMP_Round 15"</b> L= 68.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 56.55' / 55.25' S= 0.0190 1' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=5.29 cfs @ 12.17 hrs HW=57.98' TW=53.61' (Dynamic Tailwater)↑**1=CMP\_Round 15"** (Inlet Controls 5.29 cfs @ 4.31 fps)**Summary for Link AP1: On-Site Wetland Complex**

Inflow Area = 2.143 ac, 35.05% Impervious, Inflow Depth > 4.38" for 25 YEAR STORM event  
Inflow = 7.45 cfs @ 12.20 hrs, Volume= 0.783 af  
Primary = 7.45 cfs @ 12.20 hrs, Volume= 0.783 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**294 York Street SWA DEV AMEND**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Abutting Drainage to** Runoff Area=53,396 sf 13.40% Impervious Runoff Depth>6.47"  
Flow Length=256' Tc=13.4 min CN=WQ Runoff=7.33 cfs 0.661 af

**Subcatchment 2S: Roadside Drainage to CB** Runoff Area=3,120 sf 97.56% Impervious Runoff Depth>7.62"  
Flow Length=134' Tc=6.0 min CN=WQ Runoff=0.59 cfs 0.045 af

**Subcatchment 3S: Roadside Drainage to CB** Runoff Area=2,888 sf 87.67% Impervious Runoff Depth>7.43"  
Flow Length=82' Tc=6.0 min CN=WQ Runoff=0.53 cfs 0.041 af

**Subcatchment 4S: Development Subcat to** Runoff Area=13,404 sf 86.33% Impervious Runoff Depth>7.41"  
Flow Length=136' Tc=7.2 min CN=WQ Runoff=2.40 cfs 0.190 af

**Subcatchment 5S: Abutting Parcel Direct** Runoff Area=16,325 sf 43.38% Impervious Runoff Depth>6.55"  
Flow Length=92' Tc=4.3 min CN=WQ Runoff=2.95 cfs 0.204 af

**Subcatchment 6S: Subject Parcel Direct** Runoff Area=4,236 sf 31.80% Impervious Runoff Depth>6.27"  
Flow Length=58' Slope=0.0517 '/' Tc=4.3 min CN=WQ Runoff=0.74 cfs 0.051 af

**Reach 1R: Diversion Structure Outfall** Avg. Flow Depth=0.45' Max Vel=0.15 fps Inflow=2.04 cfs 0.042 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=1.31 cfs 0.042 af

**Reach 2R: Jellyfish Outfall Reach to AP1** Avg. Flow Depth=0.38' Max Vel=0.14 fps Inflow=2.04 cfs 0.147 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=0.94 cfs 0.146 af

**Reach 3R: Municipal Outfall to AP1** Avg. Flow Depth=1.01' Max Vel=0.24 fps Inflow=8.57 cfs 0.745 af  
n=0.240 L=66.0' S=0.0030 '/' Capacity=18.44 cfs Outflow=7.48 cfs 0.742 af

**Pond 1P: York Street Catch Basin #1** Peak Elev=67.84' Storage=188 cf Inflow=7.33 cfs 0.661 af  
12.0" Round Culvert n=0.013 L=33.0' S=0.0273 '/' Outflow=8.11 cfs 0.660 af

**Pond 2P: York Street Catch Basin #2** Peak Elev=63.92' Storage=60 cf Inflow=8.46 cfs 0.706 af  
15.0" Round Culvert n=0.013 L=27.0' S=0.0259 '/' Outflow=8.36 cfs 0.705 af

**Pond 3P: York Street Catch Basin #3** Peak Elev=62.43' Storage=61 cf Inflow=8.67 cfs 0.746 af  
15.0" Round Culvert n=0.013 L=69.5' S=0.0439 '/' Outflow=8.57 cfs 0.745 af

**Pond 4P: 30" Detention** Peak Elev=140.28' Storage=0.008 af Inflow=2.37 cfs 0.147 af  
Outflow=2.04 cfs 0.147 af

**Pond 5P: Jellyfish JF4-1-1 (40")** Peak Elev=55.12' Inflow=2.04 cfs 0.147 af  
Outflow=2.04 cfs 0.147 af

**Pond 6P: DIV STR (Prp. Catch Basin #2)** Peak Elev=56.32' Storage=43 cf Inflow=2.40 cfs 0.190 af  
Primary=2.37 cfs 0.147 af Secondary=2.04 cfs 0.042 af Outflow=2.46 cfs 0.189 af

**Pond 7P: Prp. Catch Basin #1 (Municipal, Solid Cover)** Peak Elev=59.28' Inflow=8.57 cfs 0.745 af  
15.0" Round Culvert n=0.013 L=68.5' S=0.0190 '/' Outflow=8.57 cfs 0.745 af

**294 York Street SWA DEV AMEND***Type III 24-hr 100 YEAR STORM Rainfall=8.57"*

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**Link AP1: On-Site Wetland Complex**

Inflow=11.11 cfs 1.186 af

Primary=11.11 cfs 1.186 af

**Total Runoff Area = 2.143 ac   Runoff Volume = 1.192 af   Average Runoff Depth = 6.68"**  
**64.95% Pervious = 1.392 ac   35.05% Impervious = 0.751 ac**



**Summary for Subcatchment 1S: Abutting Drainage to CB #1**

Runoff = 7.33 cfs @ 12.18 hrs, Volume= 0.661 af, Depth> 6.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
38,424	82	Woods/grass comb., Fair, HSG D
7,819	96	Gravel surface, HSG D
5,049	98	Paved parking, HSG D
2,104	98	Roofs, HSG D
53,396		Weighted Average
46,243		86.60% Pervious Area
7,153		13.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	99	0.0808	0.14		<b>Sheet Flow, SF 1</b>
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.1	107	0.1070	1.64		<b>Shallow Concentrated Flow, SCF 1</b>
					Woodland Kv= 5.0 fps
0.3	50	0.0150	2.49		<b>Shallow Concentrated Flow, SCF 2</b>
					Paved Kv= 20.3 fps
13.4	256	Total			

**Summary for Subcatchment 2S: Roadside Drainage to CB #2**

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 0.045 af, Depth> 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
76	80	>75% Grass cover, Good, HSG D
2,533	98	Paved parking, HSG D
511	98	Roofs, HSG D
3,120		Weighted Average
76		2.44% Pervious Area
3,044		97.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	134		0.37		<b>Direct Entry, SC 2</b>

**Summary for Subcatchment 3S: Roadside Drainage to CB #3**

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 0.041 af, Depth> 7.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
356	80	>75% Grass cover, Good, HSG D
2,532	98	Paved parking, HSG D
2,888		Weighted Average
356		12.33% Pervious Area
2,532		87.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	82		0.23		<b>Direct Entry, SC 3</b>

**Summary for Subcatchment 4S: Development Subcat to S.W. System**

Runoff = 2.40 cfs @ 12.10 hrs, Volume= 0.190 af, Depth> 7.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
1,832	80	>75% Grass cover, Good, HSG D
7,095	98	Paved parking, HSG D
4,477	98	Roofs, HSG D
13,404		Weighted Average
1,832		13.67% Pervious Area
11,572		86.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	67	0.0223	0.17		<b>Sheet Flow, SF 1</b>
					Grass: Short n= 0.150 P2= 3.30"
0.5	69	0.0150	2.49		<b>Shallow Concentrated Flow, SCF1</b>
					Paved Kv= 20.3 fps
7.2	136	Total			

**Summary for Subcatchment 5S: Abutting Parcel Direct Drainage to Wetlands**

Runoff = 2.95 cfs @ 12.06 hrs, Volume= 0.204 af, Depth> 6.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

**294 York Street SWA DEV AMEND**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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Area (sf)	CN	Description
6,181	80	>75% Grass cover, Good, HSG D
2,890	98	Paved parking, HSG D
4,192	98	Roofs, HSG D
3,062	77	Brush, Fair, HSG D
16,325		Weighted Average
9,243		56.62% Pervious Area
7,082		43.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	56	0.0535	0.23		<b>Sheet Flow, SF1</b> Grass: Short n= 0.150 P2= 3.30"
0.2	36	0.1210	2.43		<b>Shallow Concentrated Flow, SCF1</b> Short Grass Pasture Kv= 7.0 fps
4.3	92	Total			

**Summary for Subcatchment 6S: Subject Parcel Direct Drainage to Wetlands**

Runoff = 0.74 cfs @ 12.06 hrs, Volume= 0.051 af, Depth&gt; 6.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Area (sf)	CN	Description
1,331	80	>75% Grass cover, Good, HSG D
1,313	98	Roofs, HSG D
1,558	77	Brush, Fair, HSG D
34	98	Paved parking, HSG D
4,236		Weighted Average
2,889		68.20% Pervious Area
1,347		31.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	58	0.0517	0.23		<b>Sheet Flow, SF1</b> Grass: Short n= 0.150 P2= 3.30"

**Summary for Reach 1R: Diversion Structure Outfall Reach to AP1**Inflow = 2.04 cfs @ 12.05 hrs, Volume= 0.042 af  
Outflow = 1.31 cfs @ 12.21 hrs, Volume= 0.042 af, Atten= 36%, Lag= 9.5 minRouting by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.15 fps, Min. Travel Time= 7.2 min  
Avg. Velocity = 0.03 fps, Avg. Travel Time= 32.5 minPeak Storage= 560 cf @ 12.21 hrs  
Average Depth at Peak Storage= 0.45'  
Bank-Full Depth= 1.50' Flow Area= 60.0 sf, Capacity= 18.44 cfs

**294 York Street SWA DEV AMEND**

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10.00' x 1.50' deep channel, n= 0.240 Sheet flow over Dense Grass  
Side Slope Z-value= 20.0 '/' Top Width= 70.00'  
Length= 66.0' Slope= 0.0030 '/'  
Inlet Invert= 52.80', Outlet Invert= 52.60'

**Summary for Reach 2R: Jellyfish Outfall Reach to AP1**

Inflow Area = 0.308 ac, 86.33% Impervious, Inflow Depth > 5.73" for 100 YEAR STORM event  
Inflow = 2.04 cfs @ 12.00 hrs, Volume= 0.147 af  
Outflow = 0.94 cfs @ 12.15 hrs, Volume= 0.146 af, Atten= 54%, Lag= 9.1 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.14 fps, Min. Travel Time= 7.8 min  
Avg. Velocity = 0.07 fps, Avg. Travel Time= 16.0 min

Peak Storage= 441 cf @ 12.15 hrs  
Average Depth at Peak Storage= 0.38'  
Bank-Full Depth= 1.50' Flow Area= 60.0 sf, Capacity= 18.44 cfs

10.00' x 1.50' deep channel, n= 0.240 Sheet flow over Dense Grass  
Side Slope Z-value= 20.0 '/' Top Width= 70.00'  
Length= 66.0' Slope= 0.0030 '/'  
Inlet Invert= 52.80', Outlet Invert= 52.60'

**Summary for Reach 3R: Municipal Outfall to AP1**

Inflow Area = 1.364 ac, 21.43% Impervious, Inflow Depth > 6.56" for 100 YEAR STORM event  
Inflow = 8.57 cfs @ 12.20 hrs, Volume= 0.745 af  
Outflow = 7.48 cfs @ 12.24 hrs, Volume= 0.742 af, Atten= 13%, Lag= 2.5 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.24 fps, Min. Travel Time= 4.5 min  
Avg. Velocity = 0.11 fps, Avg. Travel Time= 10.4 min

Peak Storage= 2,023 cf @ 12.24 hrs  
Average Depth at Peak Storage= 1.01'  
Bank-Full Depth= 1.50' Flow Area= 60.0 sf, Capacity= 18.44 cfs

**294 York Street SWA DEV AMEND**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

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10.00' x 1.50' deep channel, n= 0.240 Sheet flow over Dense Grass

Side Slope Z-value= 20.0 '/' Top Width= 70.00'

Length= 66.0' Slope= 0.0030 '/'

Inlet Invert= 52.80', Outlet Invert= 52.60'

**Summary for Pond 1P: York Street Catch Basin #1**

Inflow Area = 1.226 ac, 13.40% Impervious, Inflow Depth > 6.47" for 100 YEAR STORM event  
 Inflow = 7.33 cfs @ 12.18 hrs, Volume= 0.661 af  
 Outflow = 8.11 cfs @ 12.20 hrs, Volume= 0.660 af, Atten= 0%, Lag= 1.0 min  
 Primary = 8.11 cfs @ 12.20 hrs, Volume= 0.660 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 67.84' @ 12.20 hrs Surf.Area= 500 sf Storage= 188 cf

Plug-Flow detention time= 1.1 min calculated for 0.660 af (100% of inflow)

Center-of-Mass det. time= 0.6 min ( 761.3 - 760.7 )

Volume	Invert	Avail.Storage	Storage Description
#1	60.50'	188 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.50	13	0	0
62.50	13	26	26
65.10	13	34	60
65.60	500	128	188

Device	Routing	Invert	Outlet Devices
#1	Primary	62.50'	<b>12.0" Round CMP_Round 12"</b> L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.50' / 61.60' S= 0.0273 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

**Primary OutFlow** Max=7.39 cfs @ 12.20 hrs HW=67.68' TW=63.86' (Dynamic Tailwater)

↑1=CMP\_Round 12" (Inlet Controls 7.39 cfs @ 9.41 fps)

**Summary for Pond 2P: York Street Catch Basin #2**

Inflow Area = 1.297 ac, 18.04% Impervious, Inflow Depth > 6.53" for 100 YEAR STORM event  
 Inflow = 8.46 cfs @ 12.19 hrs, Volume= 0.706 af  
 Outflow = 8.36 cfs @ 12.20 hrs, Volume= 0.705 af, Atten= 1%, Lag= 0.0 min  
 Primary = 8.36 cfs @ 12.20 hrs, Volume= 0.705 af

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Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 63.92' @ 12.21 hrs Surf.Area= 13 sf Storage= 60 cf

Plug-Flow detention time= 0.9 min calculated for 0.705 af (100% of inflow)

Center-of-Mass det. time= 0.5 min ( 759.9 - 759.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	59.30'	197 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.30	13	0	0
61.30	13	26	26
64.60	13	43	69
65.10	500	128	197

Device	Routing	Invert	Outlet Devices
#1	Primary	61.30'	<b>15.0" Round CMP_Round 15"</b> L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.30' / 60.60' S= 0.0259 ' S= 0.0259 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=7.21 cfs @ 12.20 hrs HW=63.86' TW=62.37' (Dynamic Tailwater)

↑1=CMP\_Round 15" (Inlet Controls 7.21 cfs @ 5.88 fps)

**Summary for Pond 3P: York Street Catch Basin #3**

Inflow Area = 1.364 ac, 21.43% Impervious, Inflow Depth > 6.56" for 100 YEAR STORM event  
 Inflow = 8.67 cfs @ 12.19 hrs, Volume= 0.746 af  
 Outflow = 8.57 cfs @ 12.20 hrs, Volume= 0.745 af, Atten= 1%, Lag= 0.1 min  
 Primary = 8.57 cfs @ 12.20 hrs, Volume= 0.745 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 62.43' @ 12.20 hrs Surf.Area= 13 sf Storage= 61 cf

Plug-Flow detention time= 0.9 min calculated for 0.745 af (100% of inflow)

Center-of-Mass det. time= 0.4 min ( 759.1 - 758.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	57.70'	218 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.70	13	0	0
59.70	13	26	26
64.60	13	64	90
65.10	500	128	218

Device	Routing	Invert	Outlet Devices
#1	Primary	59.70'	<b>15.0" Round CMP_Round 15"</b> L= 69.5' CPP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 59.70' / 56.65' S= 0.0439 ' S= 0.0439 ' Cc= 0.900  
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=8.43 cfs @ 12.20 hrs HW=62.36' TW=59.21' (Dynamic Tailwater)

↑1=CMP\_Round 15" (Inlet Controls 8.43 cfs @ 6.87 fps)

### Summary for Pond 4P: 30" Detention

Inflow Area = 0.308 ac, 86.33% Impervious, Inflow Depth > 5.74" for 100 YEAR STORM event  
Inflow = 2.37 cfs @ 12.10 hrs, Volume= 0.147 af  
Outflow = 2.04 cfs @ 12.00 hrs, Volume= 0.147 af, Atten= 14%, Lag= 0.0 min  
Primary = 2.04 cfs @ 12.00 hrs, Volume= 0.147 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 140.28' @ 12.00 hrs Surf.Area= 0.007 ac Storage= 0.008 af

Plug-Flow detention time= 16.5 min calculated for 0.147 af (100% of inflow)  
Center-of-Mass det. time= 15.6 min ( 758.3 - 742.7 )

Volume	Invert	Avail.Storage	Storage Description
#1A	53.50'	0.000 af	<b>8.25'W x 38.50'L x 2.50'H Field A</b> 0.018 af Overall - 0.008 af Embedded = 0.010 af x 0.0% Voids
#2A	53.50'	0.008 af	<b>CMP Round 30 x 2 Inside #1</b> Effective Size= 30.0"W x 30.0"H => 4.91 sf x 20.00'L = 98.2 cf Overall Size= 30.0"W x 30.0"H x 20.00'L Row Length Adjustment= +14.00' x 4.91 sf x 2 rows 6.25' Header x 4.91 sf x 1 = 30.7 cf Inside
		0.008 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 2	53.50'	<b>2.9" Vert. Orifice/Grate</b> C= 0.600
#2	Primary	53.50'	<b>12.0" Round Culvert</b> L= 5.0' CMP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 53.50' / 53.47' S= 0.0060 ' S= 0.0060 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

**Primary OutFlow** Max=2.02 cfs @ 12.00 hrs HW=138.58' TW=55.07' (Dynamic Tailwater)

↑2=Culvert (Passes 2.02 cfs of 30.49 cfs potential flow)

↑1=Orifice/Grate (Orifice Controls 2.02 cfs @ 44.00 fps)

### Summary for Pond 5P: Jellyfish JF4-1-1 (40")

Inflow Area = 0.308 ac, 86.33% Impervious, Inflow Depth > 5.73" for 100 YEAR STORM event  
Inflow = 2.04 cfs @ 12.00 hrs, Volume= 0.147 af  
Outflow = 2.04 cfs @ 12.00 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min  
Primary = 2.04 cfs @ 12.00 hrs, Volume= 0.147 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



**294 York Street SWA DEV AMEND**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Prepared by {enter your company name here}

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Peak Elev= 55.12' @ 11.99 hrs

Device	Routing	Invert	Outlet Devices
#1	Device 2	53.00'	<b>JF4 CSV File</b> Head (feet) 0.00 0.08 0.17 0.25 0.33 0.42 0.50 0.58 0.67 0.75 0.83 0.92 1.00 1.08 1.17 1.25 1.33 1.42 1.50 1.58 1.67 1.75 Disch. (cfs) 0.000 0.003 0.006 0.010 0.013 0.016 0.019 0.031 0.043 0.055 0.067 0.080 0.092 0.104 0.116 0.128 0.140 0.152 0.164 0.176 0.188 0.201
#2	Primary	53.00'	<b>12.0" Round Culvert</b> L= 8.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 53.00' / 52.80' S= 0.0235 ' S= 0.0235 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	54.75'	<b>3.0' long Sharp-Crested Vee/Trap Weir</b> Cv= 2.62 (C= 3.28)

**Primary OutFlow** Max=1.99 cfs @ 12.00 hrs HW=55.07' TW=53.10' (Dynamic Tailwater)

2=Culvert (Passes 1.99 cfs of 4.74 cfs potential flow)

1=JF4 CSV File (Custom Controls 0.20 cfs)

3=Sharp-Crested Vee/Trap Weir (Weir Controls 1.79 cfs @ 1.86 fps)

**Summary for Pond 6P: DIV STR (Prp. Catch Basin #2)**

Inflow Area =	0.308 ac, 86.33% Impervious, Inflow Depth > 7.41" for 100 YEAR STORM event
Inflow =	2.40 cfs @ 12.10 hrs, Volume= 0.190 af
Outflow =	2.46 cfs @ 12.10 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary =	2.37 cfs @ 12.10 hrs, Volume= 0.147 af
Secondary =	2.04 cfs @ 12.05 hrs, Volume= 0.042 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 56.32' @ 12.05 hrs Surf.Area= 13 sf Storage= 43 cf

Plug-Flow detention time= 3.4 min calculated for 0.189 af (99% of inflow)

Center-of-Mass det. time= 1.6 min ( 739.2 - 737.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	187 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	13	0	0
55.00	13	26	26
56.00	13	13	39
57.50	13	20	59
58.00	500	128	187

Device	Routing	Invert	Outlet Devices
#1	Primary	55.00'	<b>12.0" Round CMP_Round 12"</b> L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 55.00' / 54.90' S= 0.0083 ' S= 0.0083 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	56.00'	<b>4.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00

**294 York Street SWA DEV AMEND**

Type III 24-hr 100 YEAR STORM Rainfall=8.57"

Prepared by {enter your company name here}

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Coef. (English) 2.80 2.92 3.08 3.30 3.32

**Primary OutFlow** Max=0.00 cfs @ 12.10 hrs HW=56.04' TW=92.89' (Dynamic Tailwater)↑**1=CMP\_Round 12"** (Controls 0.00 cfs)**Secondary OutFlow** Max=2.04 cfs @ 12.05 hrs HW=56.32' TW=53.10' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Weir Controls 2.04 cfs @ 1.61 fps)**Summary for Pond 7P: Prp. Catch Basin #1 (Municipal, Solid Cover)**

Inflow Area = 1.364 ac, 21.43% Impervious, Inflow Depth &gt; 6.56" for 100 YEAR STORM event

Inflow = 8.57 cfs @ 12.20 hrs, Volume= 0.745 af

Outflow = 8.57 cfs @ 12.20 hrs, Volume= 0.745 af, Atten= 0%, Lag= 0.0 min

Primary = 8.57 cfs @ 12.20 hrs, Volume= 0.745 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 59.28' @ 12.20 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.55'	<b>15.0" Round CMP_Round 15"</b> L= 68.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 56.55' / 55.25' S= 0.0190 1' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

**Primary OutFlow** Max=8.43 cfs @ 12.20 hrs HW=59.21' TW=53.79' (Dynamic Tailwater)↑**1=CMP\_Round 15"** (Inlet Controls 8.43 cfs @ 6.87 fps)**Summary for Link AP1: On-Site Wetland Complex**

Inflow Area = 2.143 ac, 35.05% Impervious, Inflow Depth &gt; 6.64" for 100 YEAR STORM event

Inflow = 11.11 cfs @ 12.20 hrs, Volume= 1.186 af

Primary = 11.11 cfs @ 12.20 hrs, Volume= 1.186 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Carriage Landing (Bristol Pointe #2) - Existing Condition Peak Flows**

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)	100 Year Storm (cfs)
AP1	3.67	6.37	8.51	12.49

Rainfall Event Totals (in.)	
2-Year	3.21
10-Year	4.80
25-Year	6.05
100-Year	8.57

**Carriage Landing (Bristol Pointe #2) - Developed Condition Peak Flows**

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)	100 Year Storm (cfs)
AP1	3.04	5.42	7.45	11.11

**Carriage Landing (Bristol Pointe #2) - Change in Peak Flows**

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)	100 Year Storm (cfs)
AP1	-0.63	-0.95	-1.06	-1.38



## **CARRIAGE LANDING – BRISTOL POINTE #2 294 YORK STREET, YORK, MAINE**

### **OPERATION AND MAINTENANCE PROGRAM STORMWATER MANAGEMENT BMP's**

This project contains specific Best Management Practices (BMP's) for the conveyance, storage, and treatment of stormwater and the prevention of erosion. These BMP's consist of subsurface detention areas, a bioretention vault, rip rap swale, and level lip spreader. All components should be inspected quarterly, and after every significant rain event (>1" in any 24-hour period).

The party responsible for implementing this Operation and Maintenance Program (O&M Program) shall be the property owner or a designated owner's representative.

#### **Subsurface Stormwater Detention Areas**

See attached Jellyfish Vault Installation & Maintenance Guide provided by Contech Engineered Solutions

#### **Jellyfish Bioretention Filter**

See attached Jellyfish Filter Manhole Installation & Maintenance Guide provided by Contech Engineered Solutions

#### **Culverts**

Culvert inlets and outlets should be inspected for debris, which could clog the BMPs. Additionally, the placement of riprap should be inspected to ensure that all areas remain smooth, and that no areas exhibit erosion in the form of rills or gullies.

#### **Swales**

All swales should be inspected for accumulation of debris, which could adversely affect the function of this BMP. These areas should also be maintained to have gradual slopes, which prevent channeling of stormwater and erosion of the bottom and sides of the swales. Rip rap armoring shall be applied to the designated swale on the Plan Set which received foundation drains from the abutting development. This stone-lined area shall provide appropriate velocity dissipation and shall be inspected to ensure the armoring is properly seated and remains in its installed location.

#### **Catch Basins**

All catch basin grates, sumps, and inlets/outlets should be inspected for accumulation of debris, which could adversely affect the function of this BMP. Additionally, the basin inverts shall be inspected for clogging and material soundness. Sumps shall always be clear to a depth of 12" below the outlet invert. Inlet structures shall be inspected and cleaned of debris at least twice annually, once in the spring following snow melt and once in the autumn after leaf fall.

**Parking Lots**

The entire parking area shall be swept, by mechanical or vacuum sweepers, to remove grit, debris, and trash from the travelway, parking area, and sidewalk, and overall reduce the export of sand to receiving stormwater structures. Sweeping frequency shall be monthly, and large debris shall be removed by hand prior to all sweeping actions.

**Snow Removal**

Snow shall be stockpiled only in the approved snow storage areas. Plowing of snow into wetland areas is prohibited. Additionally, a mostly sand mix (reduced salt) shall be applied during winter months to prevent excessive salt from leaching into wetland areas. Excess sand shall be removed from all paved surfaces and adjacent areas each spring.

**Seeding, Fertilizing and Mulching**

All exposed soil materials and stockpiles must be either temporarily or permanently seeded, fertilized and mulched in accordance with plan specifications. This is one of the most important features of the Erosion Control Plan, which will provide both temporary and permanent stabilization. Eroded or damaged lawn areas must be repaired until a 75% effective growth of vegetation is established and permanently maintained.

**Record Keeping (During Construction)**

The construction inspector shall maintain documentation of all inspections as well as maintenance or corrective actions that were taken in response to the inspection. This documentation shall be maintained for at least three years after the site is permanently stabilized. The scope of construction inspections shall include, but not be limited to, the inspection of the sediment and erosion control measures as well as material storage areas and all points at which vehicles access the site.

**Record Keeping (Post Construction)**

Routine maintenance and inspections will be accomplished by the owner or a third party contracted by the owner. The inspector shall have knowledge of erosion and stormwater control, including the standards and conditions of the permit.

All inspections accomplished in accordance with this program shall be documented on the attached Inspection & Maintenance Log. Copies of the Log shall be kept by the property owner or owner's representative, and be made available to the Department (Maine Department of Environmental Protection) or Town of York, upon request.

All post-construction documentation, such as inspection and cleaning logs shall be maintained for at least five years.

Additional responsibilities to include, on or by July 1 of each year, providing a completed and signed certification to the Code Enforcement Officer in a form provided by the Town, if requested, certifying that the person has inspected the stormwater management facilities and that they are adequately maintained and functioning as intended by the stormwater management plan, or that they require maintenance or repair, describing any required maintenance and any deficiencies found during inspection of the stormwater management facilities and, if the stormwater management facilities require maintenance or repair of deficiencies in order to function as intended by the approved stormwater management plan, the person must provide a record of the required maintenance or deficiency and corrective action(s) taken.

**Re-certification (as noted in Appendix B. of Chapter 500 Stormwater Management)**

Submit a certification of the following to the Department within three months of the expiration of each five-year interval from the date of issuance of the permit noting the following;

- (a) **Identification and repair of erosion problems.** All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
- (b) **Inspection and repair of stormwater control system.** All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system.
- (c) **Maintenance.** The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the Department, and the maintenance log is being maintained.

Municipalities with separate storm sewer systems regulated under the Maine Pollutant Discharge Elimination System (MPDES) Program may report on all regulated systems under their control as part of their required annual reporting in lieu of separate certification of each system. Municipalities not regulated by the MPDES Program, but that are responsible for maintenance of permitted stormwater systems, may report on multiple stormwater systems in one report.

## INSPECTION & MAINTENANCE LOG CARRIAGE LANDING – BRISTOL POINTE #2

[illegible]

1. "BMP" refers to which site feature is being maintained. For example; Catch Basin, Culvert, Swale, Underdrained Soil Filter (USF) etc.
2. "Purpose" is the reason for the inspection. For example; "quarterly" or "after a significant rain event."
3. "Maintenance Done" means any maintenance required as a result of the inspection, such as trash removal or re-seeding of areas.





## Jellyfish Filter Design Calculation

Contech Engineered Solutions, LLC Engineer:  
Date Prepared:

DRA  
11/5/2025

### Site Information

Project Name	294 York Street
Project City	York
Project State	ME
Site Designation	JF
Total Drainage Area, Ad	0.30 ac
Post Development Impervious Area, Ai	0.24 ac
Pervious Area, Ap	0.06 ac
% Impervious	81%
Runoff Coefficient, Rc	0.78
Upstream pretreatment credit	50%

### Mass Loading Calculations

Mean Annual Rainfall, P	49 in
Agency Required % Removal	80%
Percent Runoff Capture	90%
Mean Annual Runoff, Vt	37,459 ft <sup>3</sup>
Event Mean Concentration of Pollutant, EMC	70 mg/l
Annual Mass Load, M total	164 lbs

### Filter System

Filtration Brand	Jellyfish
Cartridge Length	40 in

### Jellyfish Sizing

Mass removed by pretreatment system	82 lbs
Mass load to filters after pretreatment	82 lbs
Mass to be Captured by System	65 lbs

### Method to Use

FLOW BASED

Summary		
Mass	Treatment Mass	139 lbs
	Required Size	JF4-1-1
	WQ Flow provided	0.20 cfs

**Jellyfish<sup>®</sup> Filter  
Owner's Manual**



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## THANK YOU FOR PURCHASING THE JELLYFISH® FILTER!

Contech Engineered Solutions would like to thank you for selecting the Jellyfish Filter to meet your project's stormwater treatment needs. With proper inspection and maintenance, the Jellyfish Filter is designed to deliver ongoing, high levels of stormwater pollutant removal.

If you have any questions, please feel free to call us or e-mail us:

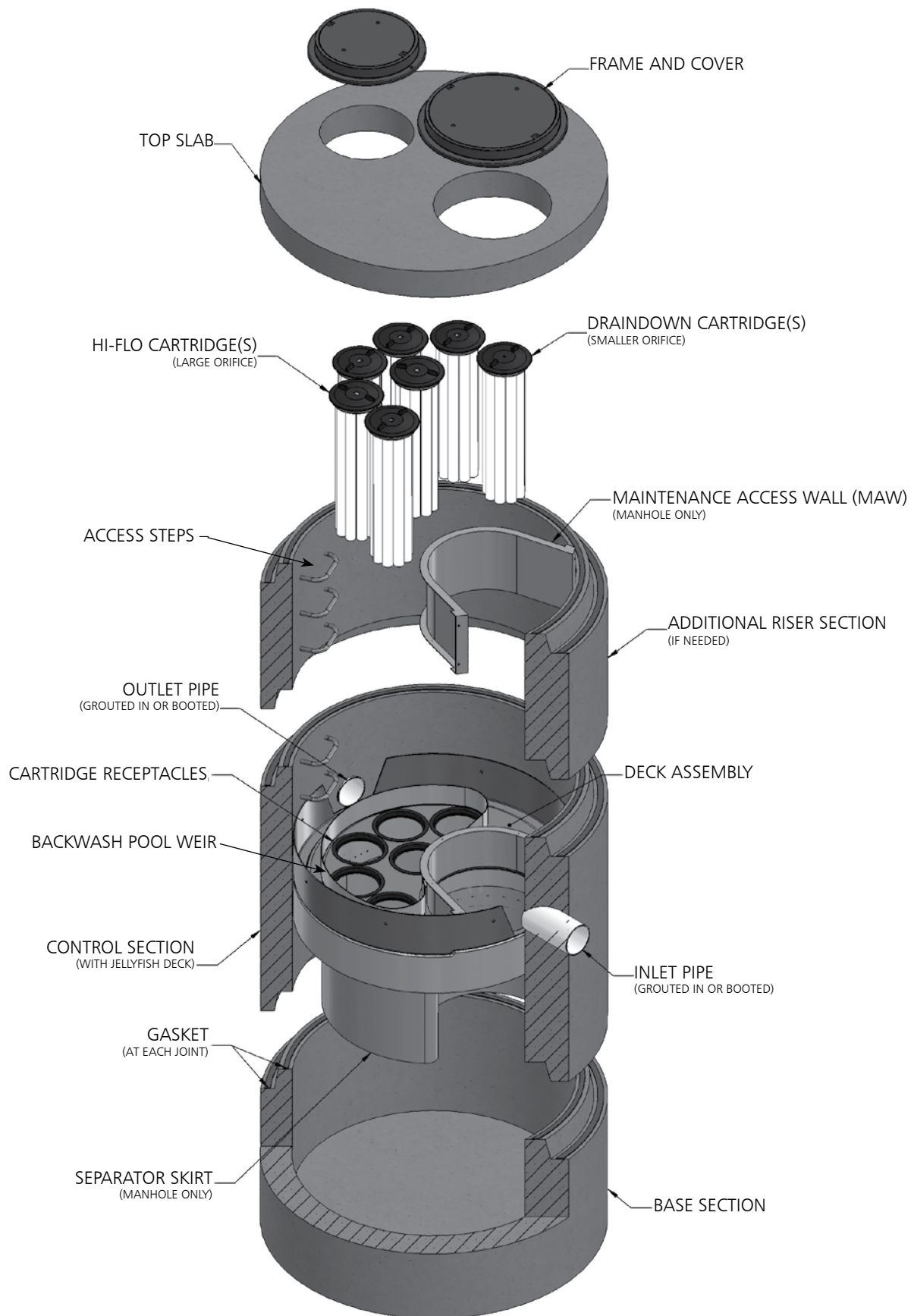
### Contech Engineered Solutions

9025 Centre Pointe Drive, Suite 400 | West Chester, OH 45069

513-645-7000 | 800-338-1122

[www.ContechES.com](http://www.ContechES.com)

[info@conteches.com](mailto:info@conteches.com)



## WARNINGS / CAUTION

1. FALL PROTECTION may be required.
2. WATCH YOUR STEP if standing on the Jellyfish Filter Deck at any time; Great care and safety must be taken while walking or maneuvering on the Jellyfish Filter Deck. Attentive care must be taken while standing on the Jellyfish Filter Deck at all times to prevent stepping onto a lid, into or through a cartridge hole or slipping on the deck.
3. The Jellyfish Filter Deck can be SLIPPERY WHEN WET.
4. If the Top Slab, Covers or Hatches have not yet been installed, or are removed for any reason, great care must be taken to NOT DROP ANYTHING ONTO THE JELLYFISH FILTER DECK. The Jellyfish Filter Deck and Cartridge Receptacle Rings can be damaged under high impact loads. This type of activity voids all warranties. All damaged items to be replaced at owner's expense.
5. Maximum deck load 2 persons, total weight 450 lbs.

## Safety Notice

Jobsite safety is a topic and practice addressed comprehensively by others. The inclusions here are intended to be reminders to whole areas of Safety Practice that are the responsibility of the Owner(s), Manager(s) and Contractor(s). OSHA and Canadian OSH, and Federal, State/Provincial, and Local Jurisdiction Safety Standards apply on any given site or project. The knowledge and applicability of those responsibilities is the Contractor's responsibility and outside the scope of Contech Engineered Solutions.

## Confined Space Entry

Secure all equipment and perform all training to meet applicable local and OSHA regulations regarding confined space entry. It is the Contractor's or entry personnel's responsibility to proceed safely at all times.

## Personal Safety Equipment

Contractor is responsible to provide and wear appropriate personal protection equipment as needed including, but not limited to safety boots, hard hat, reflective vest, protective eyewear, gloves and fall protection equipment as necessary. Make sure all equipment is staffed with trained and/or certified personnel, and all equipment is checked for proper operation and safety features prior to use.

- Fall protection equipment
- Eye protection
- Safety boots
- Ear protection
- Gloves
- Ventilation and respiratory protection
- Hard hat
- Maintenance and protection of traffic plan

## Chapter 1

### 1.0 – Owner Specific Jellyfish Filter Product Information

Below you will find a reference page that can be filled out according to your Jellyfish Filter specification to help you easily inspect, maintain and order parts for your system.

Owner Name:	
Phone Number:	
Site Address:	
Site GPS Coordinates/unit location:	
Unit Location Description:	
Jellyfish Filter Model No.:	
Contech Project & Sequence Number	
No. of Hi-Flo Cartridges	
No. of Cartridges:	
Length of Draindown Cartridges:	
No. of Blank Cartridge Lids:	
Bypass Configuration (Online/Offline):	

Notes:

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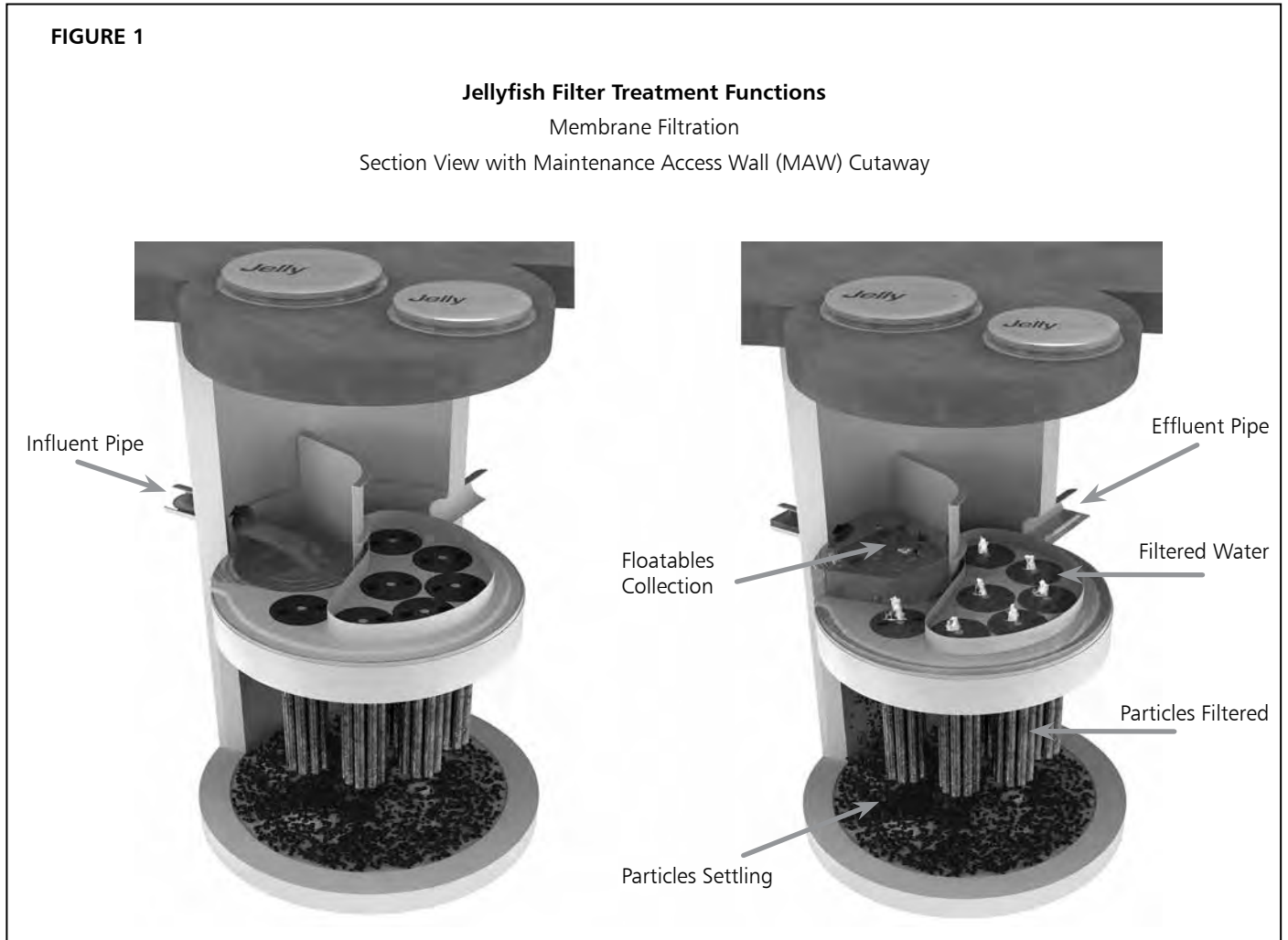
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## Chapter 2

### 2.0 – Jellyfish Filter System Operations and Functions

The Jellyfish Filter is an engineered stormwater quality treatment technology that removes a high level and wide variety of stormwater pollutants. Each Jellyfish Filter cartridge consists of eleven membrane - encased filter elements (“filtration tentacles”) attached to a cartridge head plate. The filtration tentacles provide a large filtration surface area, resulting in high flow and high pollutant removal capacity.

The Jellyfish Filter functions are depicted in Figure 1 below.

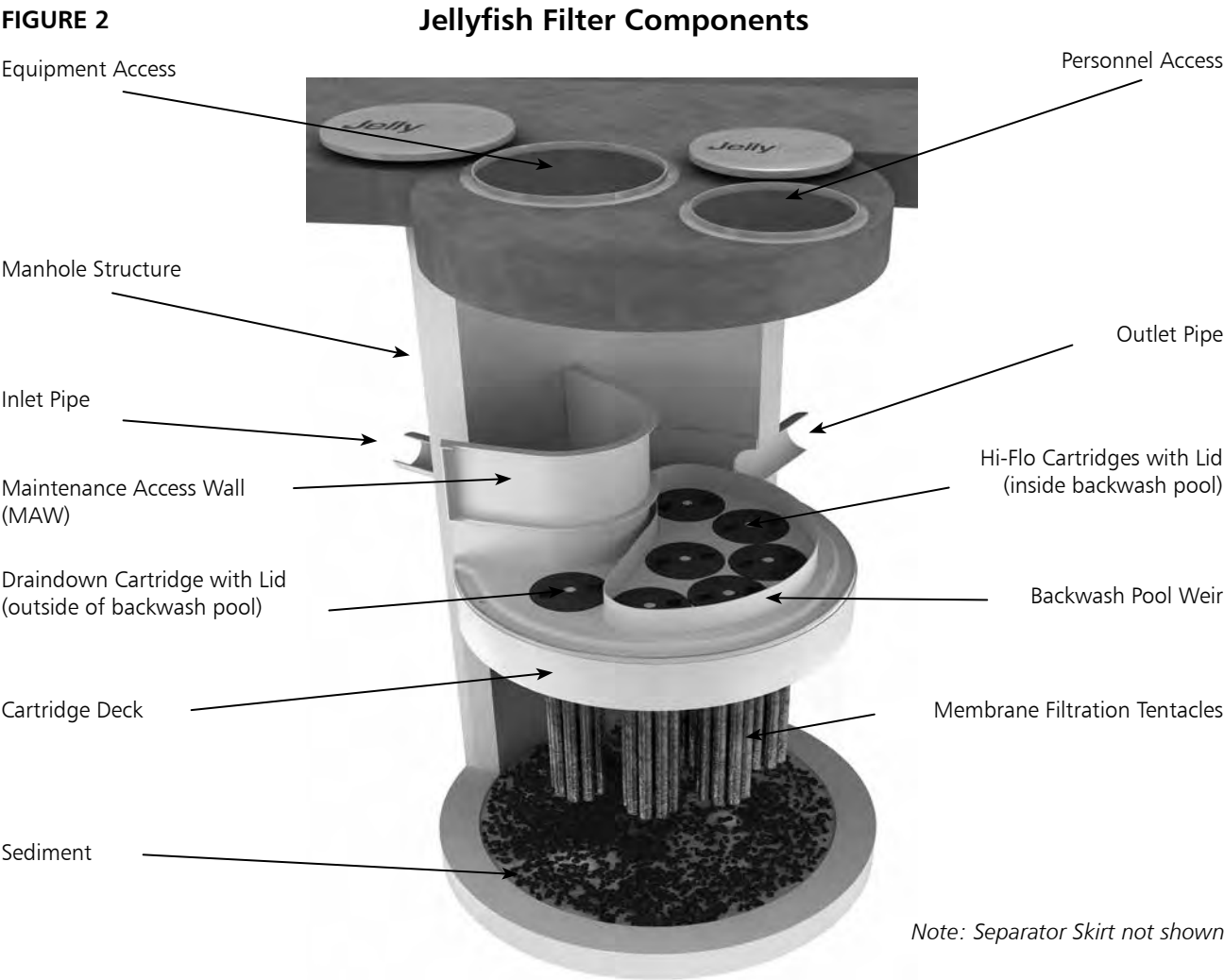


Jellyfish Filter cartridges are backwashed after each peak storm event, which removes accumulated sediment from the membranes. This backwash process extends the service life of the cartridges and increases the time between maintenance events.

For additional details on the operation and pollutant capabilities of the Jellyfish Filter please refer to additional details on our website at [www.ContechES.com](http://www.ContechES.com).

2.1 – Components and Cartridges

The Jellyfish Filter and components are depicted in Figure 2 below.



Tentacles are available in various lengths as depicted in Table 1 below.

Table 1 – Cartridge Lengths / Weights and Cartridge Lid Orifice Diameters

Cartridge Lengths	Dry Weight	Hi-Flo Orifice Diameter	Draindown Orifice Diameter
15 inches (381 mm)	10 lbs (4.5 kg)	35 mm	20 mm
27 inches (686 mm)	14.5 lbs (6.6 kg)	45 mm	25 mm
40 inches (1,016 mm)	19.5 lbs (8.9 kg)	55 mm	30 mm
54 inches (1,372 mm)	25 lbs (11.4 kg)	70 mm	35 mm

## 2.2 – Jellyfish Membrane Filtration Cartridge Assembly

The Jellyfish Filter utilizes multiple membrane filtration cartridges. Each cartridge consists of removable cylindrical filtration “tentacles” attached to a cartridge head plate. Each filtration tentacle has a threaded pipe nipple and o-ring. To attach, insert the top pipe nipples with the o-ring through the head plate holes and secure with locking nuts. Hex nuts to be hand tightened and checked with a wrench as shown below.

## 2.3 – Jellyfish Membrane Filtration Cartridge Installation

- Cartridge installation will be performed by trained individuals and coordinated with the installing site Contractor. Flow diversion devices are required to be in place until the site is stabilized (final paving and landscaping in place). Failure to address this step completely will reduce the time between required maintenance.
- Descend to the cartridge deck (see Safety Notice and page 3).
- Refer to Contech's submittal drawings to determine proper quantity and placement of Hi-Flo, Draindown and Blank cartridges with appropriate lids. Lower the Jellyfish membrane filtration cartridges into the cartridge receptacles within the cartridge deck. It is possible that not all cartridge receptacles will be filled with a filter cartridge. In that case, a blank headplate and blank cartridge lid (no orifice) would be installed.



**Cartridge Assembly**

Do not force the tentacles down into the cartridge receptacle, as this may damage the membranes. Apply downward pressure on the cartridge head plate to seat the lubricated rim gasket (thick circular gasket surrounding the circumference of the head plate) into the cartridge receptacle. (See Figure 3 for details on approved lubricants for use with rim gasket.)

- Examine the cartridge lids to differentiate lids with a small orifice, a large orifice, and no orifice.
  - Lids with a small orifice are to be inserted into the Draindown cartridge receptacles, outside of the backwash pool weir.
  - Lids with a large orifice are to be inserted into the Hi-Flo cartridge receptacles within the backwash pool weir.
  - Lids with no orifice (blank cartridge lids) and a blank headplate are to be inserted into unoccupied cartridge receptacles.
- To install a cartridge lid, align both cartridge lid male threads with the cartridge receptacle female threads before rotating approximately 1/3 of a full rotation until firmly seated. Use of an approved rim gasket lubricant may facilitate installation.



### 3.0 Inspection and Maintenance Overview

The primary purpose of the Jellyfish® Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, these pollutants must be removed to maintain the filter's maximum treatment performance. Regular inspection and maintenance are required to insure proper functioning of the system.

Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Additional maintenance activities may be required in the event of non-storm event runoff, such as base-flow or seasonal flow, an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events.

Inspection activities are typically conducted from surface observations and include:

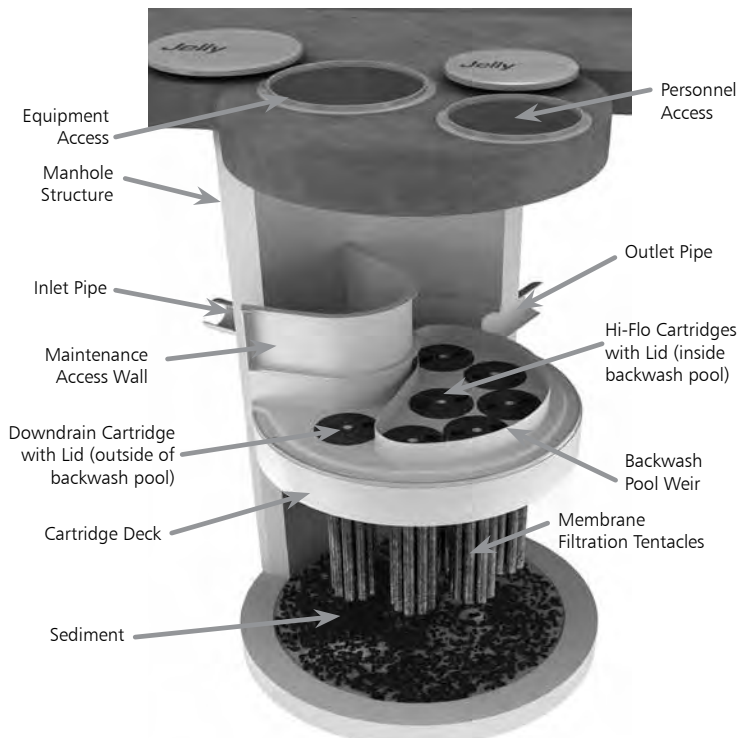
- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance Access Wall (MAW) or inlet bay for vault systems

Maintenance activities include:

- Removal of oil, floatable trash and debris
- Removal of collected sediments
- Rinsing and re-installing the filter cartridges
- Replace filter cartridge tentacles, as needed

### 4.0 Inspection Timing

Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of, the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; *or per the approved project stormwater quality documents (if applicable), whichever is more frequent.*



Note: Separator Skirt not shown

1. A minimum of quarterly inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
2. Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
3. Inspection is recommended after each major storm event.
4. Inspection is required immediately after an upstream oil, fuel or other chemical spill.

### 5.0 Inspection Procedure

The following procedure is recommended when performing inspections:

1. Provide traffic control measures as necessary.
2. Inspect the MAW or inlet bay for floatable pollutants such as trash, debris, and oil sheen.
3. Measure oil and sediment depth in several locations, by lowering a sediment probe until contact is made with the floor of the structure. Record sediment depth, and presences of any oil layers.
4. Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
5. Inspect the MAW (where appropriate), cartridge deck and receptacles, and backwash pool weir, for damaged or broken components.

#### 5.1 Dry weather inspections

- Inspect the cartridge deck for standing water, and/or sediment on the deck.
- No standing water under normal operating conditions.
- Standing water inside the backwash pool, but not outside the backwash pool indicates, that the filter cartridges need to be rinsed.



Inspection Utilizing Sediment Probe

- Standing water outside the backwash pool is not anticipated and may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- Any appreciable sediment ( $\geq 1/16"$ ) accumulated on the deck surface should be removed.

## 5.2 Wet weather inspections

- Observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW or inlet bay.
- Less than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e. cartridges located outside the backwash pool).
- Greater than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
- 18 inches or greater and relatively little flow is exiting the cartridge lids and outlet pipe, this condition indicates that the filter cartridges need to be rinsed.

## 6.0 Maintenance Requirements

Required maintenance for the Jellyfish Filter is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

1. Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.
2. Floatable trash, debris, and oil removal.
3. Deck cleaned and free from sediment.
4. Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs sooner.
5. Replace tentacles if rinsing does not restore adequate hydraulic capacity, remove accumulated sediment, or if damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
6. Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
7. The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill. Filter cartridge tentacles should be replaced if damaged or compromised by the spill.

## 7.0 Maintenance Procedure

The following procedures are recommended when maintaining the Jellyfish Filter:

1. Provide traffic control measures as necessary.
2. Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures.  
*Caution: Dropping objects onto the cartridge deck may cause damage.*
3. Perform Inspection Procedure prior to maintenance activity.

4. To access the cartridge deck for filter cartridge service, descend into the structure and step directly onto the deck. *Caution: Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.*
5. Maximum weight of maintenance crew and equipment on the cartridge deck not to exceed 450 lbs.

### 7.1 Filter Cartridge Removal

1. Remove a cartridge lid.
2. Remove cartridges from the deck using the lifting loops in the cartridge head plate. Rope or a lifting device (available from Contech) should be used. *Caution: Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Wet cartridges typically weigh between 100 and 125 lbs.*
3. Replace and secure the cartridge lid on the exposed empty receptacle as a safety precaution. Contech does not recommend exposing more than one empty cartridge receptacle at a time.

### 7.2 Filter Cartridge Rinsing

1. Remove all 11 tentacles from the cartridge head plate. Take care not to lose or damage the O-ring seal as well as the plastic threaded nut and connector.
2. Position tentacles in a container (or over the MAW), with the



Cartridge Removal & Lifting Device

threaded connector (open end) facing down, so rinse water is flushed through the membrane and captured in the container.

3. Using the Jellyfish rinse tool (available from Contech) or a low-pressure garden hose sprayer, direct water spray onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. *Caution: Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane.*
4. Collected rinse water is typically removed by vacuum hose.

5. Reassemble cartridges as detailed later in this document. Reuse O-rings and nuts, ensuring proper placement on each tentacle.

### 7.3 Sediment and Floatables Extraction

1. Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning only through the maintenance access wall (MAW) opening. Be careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck on manhole systems. Do not lower the vacuum wand through a cartridge receptacle, as damage to the receptacle will result.
2. Vacuum floatable trash, debris, and oil, from the MAW opening or inlet bay. Alternatively, floatable solids may be removed by a net or skimmer.
3. Pressure wash cartridge deck and receptacles to remove all



*Rinsing Cartridge with Contech Rinse Tool*

sediment and debris. Sediment should be rinsed into the sump area. Take care not to flush rinse water into the outlet pipe.

4. Remove water from the sump area. Vacuum or pump equipment should only be introduced through the MAW or inlet bay.
5. Remove the sediment from the bottom of the unit through the MAW or inlet bay opening.
6. For larger diameter Jellyfish Filter manholes ( $\geq 8$ -ft) and some



*Vacuuming Sump Through MAW*

vaults complete sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.

### 7.4 Filter Cartridge Reinstallation and Replacement

1. Cartridges should be installed after the deck has been cleaned. It is important that the receptacle surfaces be free from grit and debris.
2. Remove cartridge lid from deck and carefully lower the filter cartridge into the receptacle until head plate gasket is seated squarely in receptacle. *Caution: Do not force the cartridge downward; damage may occur.*
3. Replace the cartridge lid and check to see that both male threads are properly seated before rotating approximately 1/3 of a full rotation until firmly seated. Use of an approved rim gasket lubricant may facilitate installation. See next page for additional details.
4. If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.

### 7.5 Chemical Spills

*Caution: If a chemical spill has been captured, do not attempt maintenance. Immediately contact the local hazard response agency and contact Contech.*

### 7.6 Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads. Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

# Jellyfish Filter Components & Filter Cartridge Assembly and Installation

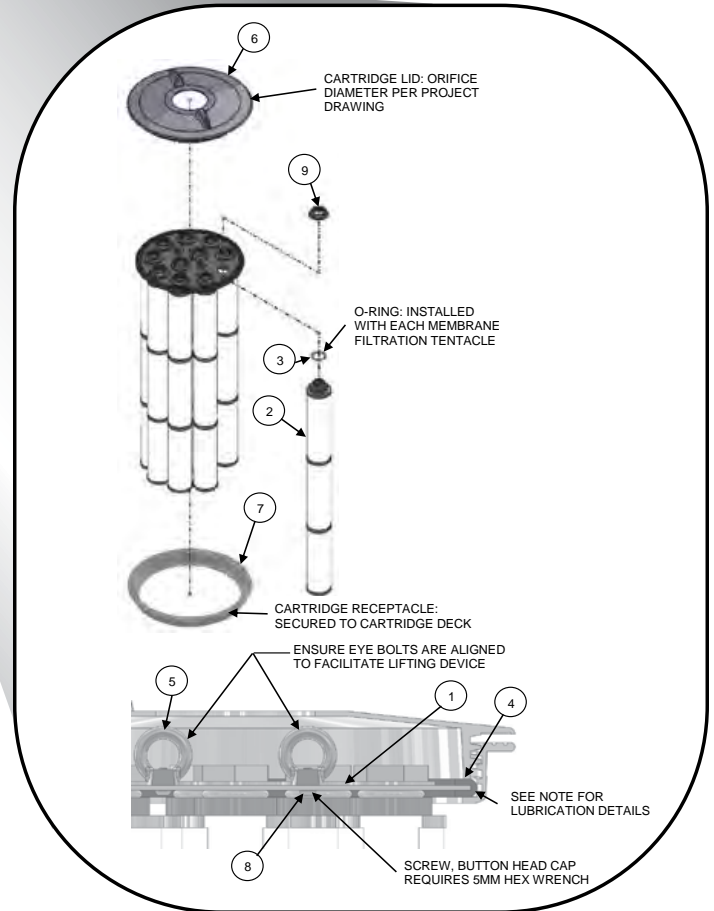
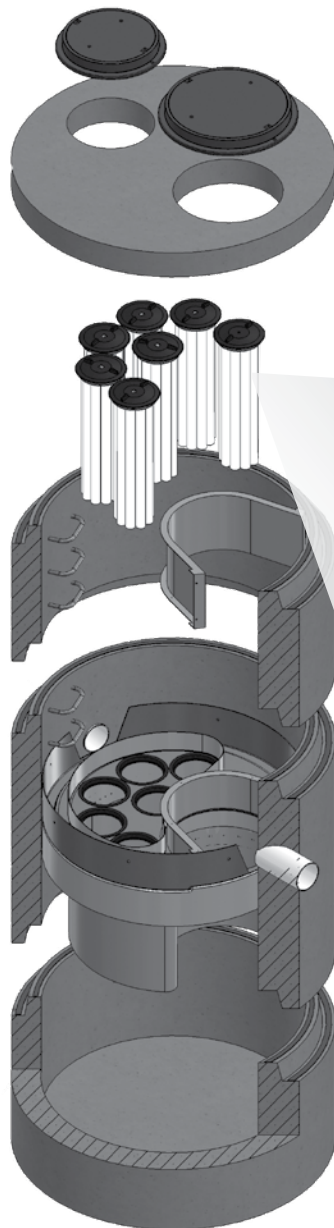


TABLE 1: BOM

ITEM NO.	DESCRIPTION
1	JF HEAD PLATE
2	JF TENTACLE
3	JF O-RING
4	JF HEAD PLATE GASKET
5	JF CARTRIDGE EYELET
6	JF 14IN COVER
7	JF RECEPTACLE
8	BUTTON HEAD CAP SCREW M6X14MM SS
9	JF CARTRIDGE NUT

TABLE 2: APPROVED GASKET LUBRICANTS

PART NO.	MFR	DESCRIPTION
78713	LA-CO	LUBRI-JOINT
40501	HERCULES	DUCK BUTTER
30600	OATEY	PIPE LUBRICANT
PSLUBXL1Q	PROSELECT	PIPE JOINT LUBRICANT

## NOTES:

### Head Plate Gasket Installation:

Install Head Plate Gasket (Item 4) onto the Head Plate (Item 1) and liberally apply a lubricant from Table 2: Approved Gasket Lubricants onto the gasket where it contacts the Receptacle (Item 7) and Cartridge Lid (Item 6). Follow Lubricant manufacturer's instructions.

### Lid Assembly:

Rotate Cartridge Lid counter-clockwise until both male threads drop down and properly seat. Then rotate Cartridge Lid clock-wise approximately one-third of a full rotation until Cartridge Lid is firmly secured, creating a watertight seal.

# Jellyfish Filter Inspection and Maintenance Log

Owner: \_\_\_\_\_ Jellyfish Model No.: \_\_\_\_\_

Location: \_\_\_\_\_ GPS Coordinates: \_\_\_\_\_

Land Use: Commercial: \_\_\_\_\_ Industrial: \_\_\_\_\_ Service Station: \_\_\_\_\_

Road/Highway: \_\_\_\_\_ Airport: \_\_\_\_\_ Residential: \_\_\_\_\_ Parking Lot: \_\_\_\_\_

Date/Time:					
Inspector:					
Maintenance Contractor:					
Visible Oil Present: (Y/N)					
Oil Quantity Removed					
Floatable Debris Present: (Y/N)					
Floatable Debris removed: (Y/N)					
Water Depth in Backwash Pool					
Cartridges externally rinsed/re-commissioned: (Y/N)					
New tentacles put on Cartridges: (Y/N)					
Sediment Depth Measured: (Y/N)					
Sediment Depth (inches or mm):					
Sediment Removed: (Y/N)					
Cartridge Lids intact: (Y/N)					
Observed Damage:					
Comments:					





# ATTAR

ENGINEERING, INC

CIVIL • STRUCTURAL • MARINE

Mr. Dylan Smith, Planning Director  
Mr. Brendan Summerville, Town Planner  
Town of York, Maine  
186 York Street  
York, ME 03909

January 12<sup>th</sup>, 2026  
Project No. 24008

**RE: Site Plan & Subdivision Amendment – Previously Approved Waiver Requests  
Carriage Landing – Bristol Pointe #2 (Tax Map 50, Lot 122)  
294 York Street, York, Maine**

Dear Mr. Smith & Mr. Summerville:

On behalf of Graystone Builders, Inc. and York Building & Design Center, Inc. (c/o Walter Woods), the following is a narrative which accompanied the Site Plan & Subdivision Application which received Planning Board approvals in May of 2025. The proposed amendment does not change the substance of any of the requested waivers, nor are any additional waivers requested as part of this Amendment.

#### **§6.3.3.A.4 – Existing Large Trees > 24” D.B.H.**

Rationale:

- The scale of existing development on-site, combined with the relatively small stock of upland on the parcel, had suggested that no large trees of such dimension existed on the property.
- Field survey observations confirmed this suggestion, but observations were limited to the site upland. Any such large trees that may or may not exist within the on-site wetlands are undocumented.
- No wetland impacts are proposed with this development, so any existing large trees within this complex would remain unaffected.

#### **§6.3.32 – High Intensity Soil Survey**

Rationale:

- This Application is a Site Plan & Subdivision Amendment for a development encompassing the same uses which was approved by the York Planning Board in June of 2023.
- The prior Application which received its approvals as noted above also received a waiver from the requested section (§6.3.32) at the March 2022 Planning Board meeting as indicated on the attached recorded plan of record.
- A Medium-Intensity Soil Survey prepared from York County resources is included in the application package.
- The proposed development shall be serviced by municipal sewer (York Sewer District). Additionally, stormwater management for the proposed development shall not include any infiltration practices.

#### **§6.4.20 – NGVD 1929 Contours (2' Interval)**

Rationale:

- The Applicant is requesting that the current and common datum of reverence – NAVD 1988 – be the standard reference from which topographic contours are depicted. This request was discussed during the November 21, 2024 Planning Board Meeting, where Town Staff made the Applicant aware that this is a regular waiver request.

#### **§6.4.25 – Performance Guarantee**

Rationale:

- During the original Site Plan & Subdivision approvals for this development in 2023, a delay on the satisfaction of this provision was entertained to allow the matter to be addressed post-approval at the Pre-Construction Meeting stage. The Applicant requests that the Planning Board grant a similar allowance for this amendment.

#### **§8.2 – Site Plan Driveway Design Standards**

Rationale:

- This Development requests a modification to the driveway width from 24 feet to 22 feet for a select portion of the interior travelway. This span is between the proposed building and the northwestern property line, roughly a span of 45'.
- Outside of this span of travelway, no modifications are requested, with the remainder of the development providing between 24' and 26' to allow for proper routing of vehicles to the residential garages and rear parking lot.
- The existing entrance, sited in the same location as the proposed, measures roughly 15' in width in this span, though adjacent to York Street the impervious apron opens up considerably due to the presence of nonconforming frontyard parking and a nonconforming structure set beyond the maximum frontyard setback.
- The narrow width of the parcel along its frontage, combined with existing nearby features that shall be preserved and protected (nearby hydrant and bollards, stone and mortar retaining wall, expanded footing of adjacent foundation), prevent the full compliant width from being satisfied for the entirety of the driveway without compromising the sideyard setback requirements or creating additional concerns with the abutting Bristol Pointe #1 structure.
- The York Fire Chief has reviewed the proposed Plan Set and found the proposed modifications satisfactory to the needs of his department for emergency response vehicles.

We look forward to discussing this project with Town Staff and Planning Board members at their next available meeting. If any additional information is required, please contact me. Thank you for your assistance.

Sincerely,



Michael J. Sudak, E.I.  
Staff Engineer

**Findings of Fact, Conclusions of Law, & Decisions**  
**Planning Board, Town of York, Maine**  
**January \_\_, 2026**

**Regarding an application by:**  
**Graystone Builders, Inc. (c/o Walter Woods)**  
**764 U.S. Route 1, Suite #11, York Maine 03909**

**For property located at:**  
**294 York Street**  
**Project: Carriage Landing (Bristol Pointe #2)**

**FINDINGS OF FACT:**

1. Street address of the property: 294 York Street, York, Maine. Map/Lot of Property: 50/122
2. Property owner as recorded at the York County Registry of Deeds: Graystone Builders, Inc. YCRD Book 19354, Page 483.
3. Other parties to the application: Owner's Agent and Civil Engineers are Kenneth A. Wood, P.E. and Michael J. Sudak, E.I. of Attar Engineering, Inc., 1284 State Road, Eliot, Maine 03903
4. The existing uses of the property is a 4,450 sq. ft. three-story mixed-use building comprised of five (5) residential townhouse units (multifamily) and two (2) commercial units (business/professional office).
5. The proposed amendment proposes additional rearyard parking and associated stormwater improvements. No changes to the approved uses nor the building footprint, layout, or utility servicing are proposed.
6. The project is located wholly in the York Village Center (YVC-1) Base Zoning District.
7. The parcel is not located within a Shoreland Overlay District.
8. The project is not located in a Special Flood Hazard Area (Flood Zone).
9. The following is a listing of materials submitted for review as part of the application:

<b><u>Item</u></b>	<b><u>Date Submitted for Review</u></b>
<b><u>Project Drawings (Final Revision Date):</u></b>	
1 – Overall Site Plan Amendment	(01/09/2026)
3 – Amended Developed Conditions Plan	(01/09/2026)
4 – Erosion & Sedimentation Control Details	(01/09/2026)
5 – Site Details	(01/09/2026)
6 – Site Details	(01/09/2026)
7 – Stormwater: Existing Conditions	(01/09/2026)
8 – Stormwater: Developed Conditions	(01/09/2026)
9 – Landscaping Plan	(01/09/2026)
Boundary and Existing Conditions Survey	(Rev. 4 – 04/11/2023)



<u>Item</u>	<u>Date Submitted for Review</u>
Site Plan & Subdivision Amendment	01/12/2026
- Cover Letter	
- Application Form	
- Agent Authorization	
- Parcel Deed	
- Easements and Rights-of-Way of Record	
- USGS Map	
- Abutters List	
- Stormwater Management Narrative	
- Amended Stormwater Analysis (HydroCAD)	
- Stormwater Operation & Maintenance Program	
- Amended Waiver Request Letter	
- Amended Draft Findings of Fact	
- Statement of Financial Capacity	
- Existing Boundary Survey	
- Recorded Plan of prior Approval	
- Plan Set Sheets	

CONCLUSIONS OF LAW (excerpts from prior Approval):

1. The project as submitted requires review under the Town of York Site Plan and Subdivision Regulations and the Town of York Zoning Ordinance. In cases of conflicting requirements, the more restrictive regulation shall govern.

2. In its review of the application, the Planning Board determined the proposal was in conformance with the Town's Comprehensive Plan, Site Plan & Subdivision Regulations, and Zoning Ordinance.

Regarding Site Plan and Subdivision Regulations, the Planning Board found the application is in compliance with §1.2, Criteria Of Approval, as follows:

1.2.1 Pollution. The development will not result in undue water or air pollution. In making this determination, the Board shall at least consider the elevation of the land above sea level and its relation to the floodplains, the nature of soils and sub-soils and their ability to adequately support waste disposal, the slope of the land and its effects on effluents, the availability of streams for disposal of effluents, and applicable state and local health and water resource rules and regulations.

*Finding: The Stormwater Management plan was reviewed by the Town's Third Party Review Engineer, who found that it met the Town of York stormwater ordinances.*

1.2.2 Sufficient Water. The development has sufficient water available for the reasonably foreseeable needs of the development.

*Finding: The proposed development shall be served by an extension of the municipal water main beneath York Street. The York Water District has reviewed the proposed design and has found it to meet their specifications. Flow testing of the existing main shall be performed to determine the*

*appropriate size (4" or 6") of the service line for this development. Based on these findings, the Board finds that the requirements of § 1.2.2 are met.*

1.2.3 Municipal Water Supply. The development will not cause an unreasonable burden of an existing water supply, if one is to be utilized.

*Finding: The five dwelling units and two commercial units will be connected by a municipal water supply; a letter of capacity from the York Water District has been submitted. Based on these findings, the Board finds that the requirements of § 1.2.3 are met.*

1.2.4 Erosion. The development will not cause unreasonable soil erosion or a reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition results.

*Finding: The project plans include an erosion & sedimentation control plan that will be implemented during and after construction of the mixed-use building and its amenities. The potential for erosion & sedimentation will be greatly reduced by the completion of the project, and the nearby wetland complex shall not be impacted. Based on these findings, the Board finds that the requirements of § 1.2.4 are met.*

1.2.5 Traffic. The development will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highways or public roads existing or proposed, and if the proposed development requires driveways or entrances onto a state or state-aid highway located outside the urban compact area of an urban compact municipality as defined by Title 23 §754, the Maine Department of Transportation has provided documentation indicating that the driveways or entrances conform to Title 23 §704 and any rules adopted under that section.

*Finding: The number of vehicle trips expected is less than the MDOT threshold for a Traffic Movement Permit (approximately 10 trips/day and 6 PM peak hourly trips). The project was reviewed and approved by the York Department of Public Works. The location of the proposed entrance for the development remains the same as the existing condition, and existing sight distances in both directions have been documented in excess of the minimum required. The access entrance is surfaced with asphalt and abutting sidewalks and crosswalks shall be extended across the frontage of this parcel to promote safe use. Based on these findings, the Board finds that the requirements of § 1.2.5 are met.*

1.2.6 Sewage Disposal. The development will provide for adequate sewage waste disposal and will not cause an unreasonable burden on municipal services if they are utilized.

*Finding: Municipal sewage disposal services will be utilized for this project. Based on these findings, the Board finds that the requirements of § 1.2.6 are met.*

1.2.7 Municipal Solid Waste Disposal. The development will not cause an unreasonable burden on the Town's ability to dispose of solid waste if municipal services are to be utilized.

*Finding: The five dwelling units and two commercial units will be connected by a municipal solid waste disposal service; a letter of capacity from the York Sewer District has been submitted. Based on these findings, the Board finds that the requirements of §1.2.7 are met.*

1.2.8 Aesthetic, Cultural and Natural Values. The development will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife

habitat identified by the Department of Inland Fisheries and Wildlife or the municipality, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline.

*Finding: The development will not have an undue adverse impact on any aesthetic, cultural or natural values. The site will remain in its existing condition, as the proposed development shall utilize the same vehicular entrance and the proposed structure shall occupy the footprint of the existing building to be removed. The aesthetics of the site will be improved by the removal of existing frontyard parking and replacement with a maintained greenspace of lawn and landscape plantings. No significant wildlife habitats occur on the site as supported by the Beginning with Habitat maps submitted with the application. The project is not adjacent to the shoreline; therefore, no impediment to shoreline access will be created by the project. Based on these findings, the Board finds that the requirements of §1.2.8 are met.*

1.2.9 Conformity with Local Ordinances and Plans. The development is in conformance with these Regulations, Zoning and other Town land use codes, and the Comprehensive Plan. In making this determination, the Planning Board is authorized to interpret these Ordinances and Plans.

*Finding: Through its review of this application, the Board finds that the requirements of §1.2.9 are met.*

1.2.10 Technical and Financial Capacity. The developer has adequate financial and technical capacity to meet the required standards.

*Finding: The applicant has the technical and financial capacity to complete the project as designed. Based on these findings, the Board finds that the requirements of §1.2.10 are met.*

1.2.11 Surface Waters. Whenever situated entirely or partially within the watershed of any pond or lake or within 250 feet of wetland, great pond or river as defined in Title 38, Chapter 3, Subchapter 1, Article 2-B, the proposed development will not adversely affect the quality of that body of water or unreasonably affect the shoreline of that body of water.

*Finding: The site is not located in the watershed of a pond, lake, great pond or river. The site includes wetlands which will not be impacted by the development. With the implementation of the project Stormwater Management Plan and Erosion & Sedimentation Control Plan, it is not expected that this wetland will be adversely impacted. Based on these findings, the Board finds that the requirements of §1.2.12 are met.*

1.2.12 Ground Water. The development will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater.

*Finding: The project will not adversely affect the quality or quantity of groundwater. The project will be supported by a municipal water service, and therefore will not extract groundwater in a drilled well for the proposed uses. The implementation of the project Stormwater Management Plan and Erosion & Sedimentation Control Plan will maintain or improve the quality of surface runoff and reduce the likelihood of adverse effects on groundwater. Based on these findings, the Board finds that the requirements of §1.2.12 are met.*

1.2.13 Flood Areas. Based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps, and information presented by the applicant, the Planning Board will determine whether the development, or any part of it, is in a flood prone

area. If the development, or any part of it, is in such an area, the developer shall determine the 100-year flood elevation and flood hazard boundaries within the development. The proposed plan must include a condition of approval requiring that principal structures in the development will be constructed with their lowest floor, including the basement, at least two feet above the 100-year flood elevation.

*Finding: The project site is not in a flood hazard area. Based on these findings, the Board finds that the requirements of §1.2.13 are met.*

1.2.14 Freshwater Wetlands. All freshwater wetlands within the proposed development have been identified on any maps submitted as part of the application, regardless of the size of these wetlands.

*Finding: A wetland scientist determined that wetlands exist on the site. The wetlands are depicted on the project plans. Based on these findings, the Board finds that the requirements of §1.2.15 are met.*

1.2.15 River, Stream or Brook. Any river, stream or brook within or abutting the proposed development has been identified on any maps submitted as part of the application. For purposes of this section, "river, stream or brook" has the same meaning as in Title 38 §480-B.9.

*Finding: No rivers, streams or brooks exist on or immediately adjacent to the project site. Based on these findings, the Board finds that the requirements of §1.2.15 are met.*

1.2.16 Stormwater. The proposed development will provide for adequate stormwater management.

*Finding: The Stormwater Management Plan was reviewed by the Town of York's engineering consultant, Gorrill Palmer. Based on these findings, the Board finds that the requirements of §1.2.16 are met.*

1.2.17 Spaghetti Lots Prohibited. If any lots in a proposed subdivision have shore frontage on a river, stream, brook, great pond or coastal wetland as these features are defined in Title 38 §480-B, none of the lots created within the subdivision have a lot-to-shore frontage ratio greater than 5 to 1.

*Finding: The project does not create any lots, and the existing lot is not considered a spaghetti lot. Based on these findings, the Board finds that the requirements of §1.2.17 are met.*

1.2.18 Lake Phosphorous Concentration. The long-term cumulative effects of the proposed development will not unreasonably increase a great pond's phosphorous concentration during the construction phase and life of the proposed development.

*Finding: The project is not in the watershed of a great pond. Based on these findings, the Board finds that the requirements of §1.2.18 are met.*

1.2.19 Impact on Adjoining Municipality. For any proposed development that crosses municipal boundaries, the proposed development will not cause unreasonable traffic congestion or unsafe conditions with respect to the use of existing public ways in an adjoining municipality in which part of the development is located.

*Finding: The project site lies entirely in York and does not cross municipal boundaries; the project will not cause unreasonable traffic congestion or unsafe conditions in an adjoining community. Based on these findings, the Board finds that the requirements of §1.2.19 are met.*

Regarding the Zoning Ordinance, the Planning Board found the application in compliance with §6.3, Performance Standards Applicable to the York Village Center (YVC-1) Zoning District.

Letters of project approval were issued by the York Department of Public Works, the York Schools Superintendent, the York Village Fire Department, the York Police Department, the York Historic District and the Maine Historic Preservation Commission.

DECISIONS:

1. The amendment application was reviewed and found by a vote of the Board to be substantively complete and accepted for review on \_\_\_\_\_. Site and Subdivision Amendment approved on \_\_\_\_\_.
2. Waivers Granted:

SIGNATURE:

\_\_\_\_\_  
CHAIRMAN, Town of York Planning Board

\_\_\_\_\_  
DATE



October 3, 2024

Graystone Builders Inc.  
764 US Route 1 Suite 11  
York, ME 03909

RE: Carriage Landing at 294 York St

To Whom It May Concern:

Graystone Builders is an established and valued customer of Gorham Savings Bank. The company has a proven track record with strong cash flows and reliable management from Walter Woods. We are excited about their plans at Carriage Landing and look forward to working with them in further support of the project.

Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "David N. Moravick", with a stylized, cursive script.

David N. Moravick  
*Vice President*  
Gorham Savings Bank