

**AGENDA PACKET**

**DECEMBER 21, 2021 MEETING**

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<b><u>INTERVIEW PROCESS FOR THE COMPREHENSIVE PLAN REQUEST FOR PROPOSAL RESPONSES.</u></b>	-	
No materials.		-



**TOWN OF LEWISBORO**  
**Westchester County, New York**



**Planning Board**  
**79 Bouton Road**  
**South Salem, New York 10590**

**Tel: (914) 763-5592**  
**Fax: (914) 875-9148**  
**Email: [planning@lewisborogov.com](mailto:planning@lewisborogov.com)**

**AGENDA**

**Tuesday, December 21, 2021**

Via Zoom videoconferencing and live streaming  
to Lewisboro TV YouTube channel

Meeting will start at 7:30 p.m. and end at or before 11:00 p.m.

Join Zoom Meeting

<https://zoom.us/j/95502292637?pwd=Y282VTRsd1h5Vm9LOW1SNEZUZURPd09>

Meeting ID: 955 0229 2637 Passcode: 275112

<https://www.youtube.com/channel/UCNUNE5gXs5rnHcyR4l6dikA>

**I. PUBLIC HEARINGS**

**Cal #30-20WP, Cal #05-20SW**

**Stein Residence, 51 Pine Hill Drive, South Salem, NY 10590 Sheet 29B, Block 10540 Lot 75 (William Stein, owner of record) - Application for the construction of a single-family house.**

**Cal #08-21PB**

**Oakridge Common, 920 Oakridge Common, South Salem, NY 10590, Sheet 49D, Block 9829, Lot 10 (Smith Ridge Housing, LLC, owner of record) – Application for a change of use from restaurant to residential.**

**II. EXTENSION OF TIME REQUEST**

**Cal #10-17PB**

**Mercedes Benz of Goldens Bridge, 321 Main Street, Goldens Bridge, NY 10526, Sheet 4E, Block 11135, Lots 1, 2, 3, 4, 6 & 7 (Charisma Holding Corp., owner of record); Sheet 4E, Block 11135, Lot 5 (Spencemorg, LLC., owner of record), Sheet 4E, Block 11135, Lot 9 (Charles Monaco, owner of record) and Sheet 4E, Block 11137, Lot 42 (Robert Castelli, owner of record) – Application for Site Development Plan for additions to existing auto showroom and service buildings, additional parking spaces and construction of a parking garage.**

**III. WETLAND PERMIT REVIEWS**

**Cal #29-21WP, #03-20WV**

**Schilke Residence, 3 Beaver Pond, South Salem, NY 10590, Sheet 46, Block 9827, Lot 184 (Sophia Chenevert-Schilke and D. Chenevert, owners of record) - Application for the remediation of wetlands.**

**Cal #53-21WP**

**Nitta Residence, 10 Lambert Ridge, Cross River, NY 10518, Sheet 17, Block 10533 Lot 443 (Rubina and Satyanarayana Nitta, owners of record) - Application for the installation of a pool.**

**Cal #70-21WP, #26-21SW**

**Gardner Residence, 23 Waccabuc Road, Goldens Bridge, NY 10526, Sheet 12, Block 11360, Lot 12 (Laura and Todd Gardner, owners of record) - Application for an addition, pool and patio.**

**Cal #72-21WP, Cal #21-21SW**

**Dayton Pool/Patio, 62 Mead Street, Waccabuc, NY 10597, Sheet 22, Block 10802, Lot 70 (Duncan and Rena Dayton, owners of record) - Application for a courtyard including new pool, fire pit and pavers.**

**IV. DISCUSSION**

**Interview process for the Comprehensive Plan Request for Proposal responses.**

**V. MINUTES OF November 16, 2021.**

**VI. NEXT MEETING DATE: January 11, 2022.**



# **TOWN OF LEWISBORO**

## **NOTICE OF PUBLIC HEARING**

**NOTICE IS HEREBY GIVEN** that the Planning Board of the Town of Lewisboro, Westchester County, New York will convene a Public Hearing on December 21, 2021 at 7:30 p.m., or soon thereafter, using the videoconferencing app Zoom, regarding the following:

**Cal #30-20WP, Cal #05-20SW**

**Application for Wetland Activity Permit Approval and Stormwater Permit Approval for the Stein Residence, 51 Pine Hill Drive, South Salem, NY 10590, Sheet 29B, Block 10540 Lot 75 (William Stein, owner of record) for the construction of a single-family home, driveway, well, septic system and stormwater management facilities. The subject property consists of approximately 4.69 acres and is located within a Two Acre One-Family Residential District.**

**Due to public health and safety concerns related to the COVID-19 virus, the Planning Board will not be meeting in person. In accordance with 2021 N.Y. Sess. Law S.50001, §3 (Effective September 2, 2021), this meeting will be held via Zoom and a transcript will be available at a later date. The public will have the opportunity to review digital copies of materials and proposed site documents at**

**<https://www.lewisborogov.com/planningboard>**

**Interested members of the public are encouraged to provide written comments prior to and during the virtual public hearing by emailing Ciorsdan Conran, Planning Board Administrator, at [planning@lewisborogov.com](mailto:planning@lewisborogov.com) Please check the meeting agenda posted on the Board's web page for additional instructions and updates.**

**The public may view or participate through the Zoom app at**

**<https://zoom.us/j/95502292637?pwd=Y282VTRsd1h5Vm9LOW1SNEZUZURPdz09>**

**by clicking "Join a Meeting," and entering Meeting ID: 955 0229 2637 Passcode: 275112**

**You may call in to the Zoom meeting at 1-929-205-6099 when prompted, enter Meeting ID: 955 0229 2637 Passcode: 275112**

**A copy of materials and proposed site documents may be inspected at the office of the Planning Board Administrator, 79 Bouton Road, South Salem, New York during regular Planning Board hours. Persons wishing to object to the application should file a notice of objection with the Planning Board together with a statement of the grounds of objection prior to the closing of the Public Hearing. All interested parties are encouraged to attend the Public Hearing and all will be provided an opportunity to be heard.**

**PLANNING BOARD  
TOWN OF LEWISBORO  
By: Janet Andersen  
Chair**

**Dated: November 18, 2021**

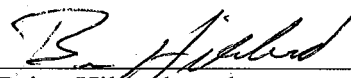
**The Town of Lewisboro is committed to equal access for all citizens. Anyone needing accommodations to attend or participate in this meeting is encouraged to notify the Administrator to the Planning Board in advance.**



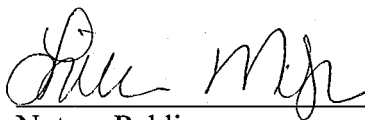
**AFFIDAVIT OF SERVICE**

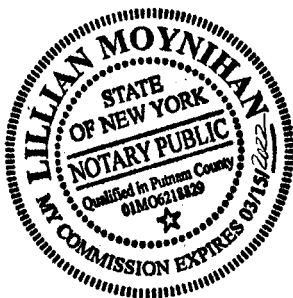
STATE OF NEW YORK     )  
COUNTY OF DUTCHESS   ) SS.:

1. Brian Hildenbrand, being duly sworn, deposes and says:
2. I am over 18 years of age; and reside at 208 Creamery Road, Hopewell Junction, NY 12533.
3. On the 6<sup>th</sup> day of December, 2021, I served the attached Notices upon all of the property owners, as set forth on the list annexed hereto, by mailing, certified mail, return receipt requested, a copy of the same to each such person or entity in a properly addressed postage pre-paid wrapper, in a post office under the exclusive care and custody of the United States Postal Service.

  
\_\_\_\_\_  
Brian Hildenbrand

Sworn to before me on this  
6<sup>th</sup> day of December, 2021

  
\_\_\_\_\_  
Notary Public





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City, State, ZIP+4® South Salem NY 10590

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Street and Apt. No., or PO Box No. 37 Pine Hill Dr.  
City, State, ZIP+4® South Salem NY 10590

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 0950 0001 9716 8994

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Extra Services & Fees (check box, add fee as appropriate)		
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$0.58	
Total Postage and Fees	\$7.38	

Postmark Here 0540 33

12/06/2021

Sent To Truesdale Woods Inc.  
Street and Apt. No., or PO Box No. 10 Truesdale Woods Rd.  
City, State, ZIP+4® South Salem NY 10590

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Extra Services & Fees (check box, add fee as appropriate)		
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<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$0.58	
Total Postage and Fees	\$7.38	

Postmark Here 0540 33

12/06/2021

Sent To Youn, Nicholas  
Street and Apt. No., or PO Box No. 30 Sabbathday Hill  
City, State, ZIP+4® South Salem NY 10590

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Extra Services & Fees (check box, add fee as appropriate)		
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$0.58	
Total Postage and Fees	\$7.38	

Postmark Here 0540 33

12/06/2021

Sent To Ogren, Jeffrey  
Street and Apt. No., or PO Box No. 60 Pine Hill Dr.  
City, State, ZIP+4® South Salem NY 10590

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Extra Services & Fees (check box, add fee as appropriate)		
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$0.58	
Total Postage and Fees	\$7.38	

Postmark Here 0540 33

12/06/2021

Sent To Birro, Anthony + Donna  
Street and Apt. No., or PO Box No. 45 Sabbathday Hill  
City, State, ZIP+4® South Salem NY 10590

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7021 0950 0001 9716 7959

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☐ Return Receipt (hardcopy) \$3.05

☐ Return Receipt (electronic) \$0.00

☐ Certified Mail Restricted Delivery \$0.00

☐ Adult Signature Required \$0.00

☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.58

Total Postage and Fees \$7.38

0540  
33Postmark  
Here

12/06/2021

Sent To Fischetti Thomas + Tamara

Street and Apt. No., or PO Box No. 62 Pine Hill Dr

City, State, ZIP+4® South Salem, NY 10590

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See Reverse for Instructions

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Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$3.05

☐ Return Receipt (electronic) \$0.00

☐ Certified Mail Restricted Delivery \$0.00

☐ Adult Signature Required \$0.00

☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.58

Total Postage and Fees \$7.38

0540  
33Postmark  
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12/06/2021

Sent To Ciacci Peter + Jones Kathryn

Street and Apt. No., or PO Box No. 49 Sabbathday Hill

City, State, ZIP+4® South Salem, NY 10590

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

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South Salem, NY 10590

Certified Mail Fee \$3.75

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$3.05

☐ Return Receipt (electronic) \$0.00

☐ Certified Mail Restricted Delivery \$0.00

☐ Adult Signature Required \$0.00

☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.58

Total Postage and Fees \$7.38

0540  
33Postmark  
Here

12/06/2021

Sent To Feigenbaum Joseph + Susan

Street and Apt. No., or PO Box No. 44 Pine Hill Dr

City, State, ZIP+4® South Salem, NY 10590

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7021 0950 0001 9716 9076

# U.S. Postal Service™ CERTIFIED MAIL® RECEIPT

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Greenwich, CT 06830

Certified Mail Fee \$3.75

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$3.05

☐ Return Receipt (electronic) \$0.00

☐ Certified Mail Restricted Delivery \$0.00

☐ Adult Signature Required \$0.00

☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.58

Total Postage and Fees \$7.38

0540  
33Postmark  
Here

12/06/2021

Sent To South Salem Associates

Street and Apt. No., or PO Box No. 175 Greenwich Ave

City, State, ZIP+4® Greenwich, CT 06830

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7021 0950 0001 9716 7980

# U.S. Postal Service™ CERTIFIED MAIL® RECEIPT

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South Salem, NY 10590

Certified Mail Fee \$3.75

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$3.05

☐ Return Receipt (electronic) \$0.00

☐ Certified Mail Restricted Delivery \$0.00

☐ Adult Signature Required \$0.00

☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.58

Total Postage and Fees \$7.38

0540  
33Postmark  
Here

12/06/2021

Sent To Woodrow Matthew + Chretien, Florence

Street and Apt. No., or PO Box No. 49 Pine Hill Dr

City, State, ZIP+4® South Salem, NY 10590

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions





# UNITED STATES POSTAL SERVICE.

LAGRANGEVILLE  
1085 ROUTE 55  
LAGRANGEVILLE, NY 12540-9998  
(800)275-8777

12/06/2021

09:48 AM

Product	Qty	Unit Price	Price
---------	-----	---------------	-------

First-Class Mail® Letter	1		\$0.58
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South Salem, NY 10590

Weight: 0 lb 0.40 oz

Estimated Delivery Date

Fri 12/10/2021

Certified Mail®			\$3.75
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Tracking #:

70210950000197167980

Return Receipt			\$3.05
----------------	--	--	--------

Tracking #:

9590 9402 6771 1074 9731 16

Total			\$7.38
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First-Class Mail® Letter	1		\$0.58
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Greenwich, CT 06830

Weight: 0 lb 0.40 oz



Tracking #: 70210950000197169045

Return Receipt

Tracking #:

9590 9402 6135 0209 5254 15

\$3.05

Total

\$7.38

-----  
Grand Total:

\$169.74

-----  
Credit Card Remitted

\$169.74

Card Name: VISA

Account #: XXXXXXXXXXXXX6160

Approval #: 014809

Transaction #: 368

AID: A00000000980840

Chip

AL: US DEBIT

PIN: Not Required

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\*\*\*\*\*

USPS is experiencing unprecedented volume  
increases and limited employee  
availability due to the impacts of  
COVID-19. We appreciate your patience.

\*\*\*\*\*

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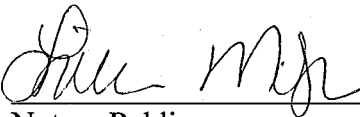
**AFFIDAVIT OF SERVICE**

STATE OF NEW YORK     )  
COUNTY OF DUTCHESS   ) SS.:

1. Brian Hildenbrand, being duly sworn, deposes and says:
2. I am over 18 years of age; and reside at 208 Creamery Road, Hopewell Junction, NY 12533.
3. On the 6<sup>th</sup> day of December, 2021, I served the attached Notices upon all of the property owners, as set forth on the list annexed hereto, by mailing, certified mail, return receipt requested, a copy of the same to each such person or entity in a properly addressed postage pre-paid wrapper, in a post office under the exclusive care and custody of the United States Postal Service.

  
\_\_\_\_\_  
Brian Hildenbrand

Sworn to before me on this  
6<sup>th</sup> day of December, 2021

  
\_\_\_\_\_  
Notary Public









## **NOTICE**

This property is the subject of an application before the Lewisboro Planning Board. A public hearing has been scheduled at which time all interested parties will be afforded an opportunity to be heard.

Please contact the Planning Board Secretary at  
**914-763-5592**

or visit  
**[www.lewisborogov.com](http://www.lewisborogov.com)**  
for additional information





NOTICE  
The property is the subject of an application for a  
change of ownership. If you are the owner, please  
contact the County Clerk's Office at  
916-343-6992  
www.kauai.gov for additional information.





**TOWN OF LEWISBORO**  
**NOTICE OF PUBLIC HEARING**

**NOTICE IS HEREBY GIVEN** that the Planning Board of the Town of Lewisboro, Westchester County, New York will convene a Public Hearing on December 21, 2021 at 7:30 p.m., or soon thereafter, using the videoconferencing app Zoom, regarding the following:

**Cal #63-21PB**

Application for Amended Site Development Plan Approval for Oakridge Commons Shopping Center, 920 Oakridge Commons, South Salem, NY 10590, Sheet 49D, Block 9829, Lot 10 (Smith Ridge Associates, owner of record) for a change of use from restaurant (space formerly occupied by The Heights at Brother Vic's) to four residential apartment units (in Building 9B). The subject property is located on the westerly side of Smith Ridge Road on NYS Route 123, consists of approximately 10.3 acres and is located within a Retail Business (RB) Zoning District.

Due to public health and safety concerns related to the COVID-19 virus, the Planning Board will not be meeting in person. In accordance with 2021 N.Y. Sess. Law S.50001, §3 (Effective September 2, 2021), this meeting will be held via Zoom and a transcript will be available at a later date. The public will have the opportunity to review digital copies of materials and proposed site documents at

<https://www.lewisborogov.com/planningboard>

Interested members of the public are encouraged to provide written comments prior to and during the virtual public hearing by emailing Ciorsdan Conran, Planning Board Administrator, at [planning@lewisborogov.com](mailto:planning@lewisborogov.com) Please check the meeting agenda posted on the Board's web page for additional instructions and updates.

The public may view or participate through the Zoom app at

<https://zoom.us/j/95502292637?pwd=Y282VTRsd1h5Vm9LOW1SNEZUZURPdz09>

by clicking "Join a Meeting," and entering Meeting ID: 955 0229 2637 Passcode: 275112

You may call in to the Zoom meeting at 1-929-205-6099 when prompted, enter Meeting ID: 955 0229 2637 Passcode: 275112

A copy of materials and proposed site documents may be inspected at the office of the Planning Board Administrator, 79 Bouton Road, South Salem, New York during regular Planning Board hours. Persons wishing to object to the application should file a notice of objection with the Planning Board together with a statement of the grounds of objection prior to the closing of the Public Hearing. All interested parties are encouraged to attend the Public Hearing and all will be provided an opportunity to be heard.

**PLANNING BOARD**  
**TOWN OF LEWISBORO**  
By: Janet Andersen  
Chair

**Dated: November 18, 2021**

The Town of Lewisboro is committed to equal access for all citizens. Anyone needing accommodations to attend or participate in this meeting is encouraged to notify the Administrator to the Planning Board in advance.



**TOWN OF LEWISBORO**  
**Westchester County, New York**



**Building Department**  
**79 Bouton Road**  
**South Salem, New York 10590**

**Tel: (914) 763-3060**  
**Fax: (914) 875-9148**  
**Email: [jangiello@lewisborogov.com](mailto:jangiello@lewisborogov.com)**

December 15, 2021

Ms. Janet Andersen, Chair  
Town of Lewisboro Planning Board

Re: Cal#08-21PB  
Oakridge Apartments, 920 Oakridge Commons, sheet 049D, block 09829, lot 010

Dear Ms. Andersen and Members of the Board,

I have reviewed the plans from Robert J. Eberts, Architect latest revision dated 11/16/2021 as well as the memo from Jan K. Johannessen, AICPI and Joseph M. Cermele, P.E. dated 11/12/21.

I have the following comments:

1. The multi-family dwelling is a permitted use for this RB zone and is zoning compliant.
2. A recreation fee of \$7,500 per multi-family density unit is required for this project per the Planning Board Application Fee & Escrow Schedule.

Please do not hesitate to contact me with any questions.

Sincerely,

Joseph Angiello  
Building Inspector



CROSS  
RIVER  
ARCHITECTS,  
LLC

ROBERT J. EBERTS, R.A.  
PRINCIPAL ARCHITECT

DATE: 9 Sept 2021

TO: Janet Andersen Chairwoman  
Lewisboro Planning Board

FROM: Bob Eberts  
CROSS RIVER ARCHITECTS, LLC

RE: Oakridge Commons Building 9B  
450 Oakridge Commons, South Salem, NY 10590  
Convert Heights Cabaret to Residential Apartments

Board Members,

The Heights Cabaret / Restaurant has been struggling for many years. After the Covid Pandemic, the space remains vacant. The Owner of the Shopping Center is requesting a Change of Use amendment to the Site Plan Approval in order to make this change. The Site is in an RB zone which permits multifamily use. The proposal meets all other requirements of the Lewisboro Zoning Ordinance.

The Heights sits on the second floor of Building 9B on the westerly side of the property overlooking the pond. It has on grade access on both the North and South sides of the building. It is 6,000 sf, not including two decks on the west side of the building. The building sits adjacent to the Laurel Ridge Townhomes to the south and east and across the pond from the Oakridge Townhomes, so the multifamily residential use is adjacent to the site.

It is our proposal to add a corridor running along the easterly side of the space accessed from the existing exterior doors and divide the remaining space into four 3-bedroom apartments of approximately 1250 sf each.

We are proposing to change some of the exterior windows to operable windows for required emergency egress from sleeping rooms. No other exterior work is proposed. There are no changes proposed to the site. All other work will be interior to the existing structure.

There are sufficient parking spaces on site to meet the requirements of the Zoning Ordinance for the site per the Parking Calculation table on drawing S1.

Also, according to the NYSDEC publication "Design Standards for Intermediate sized Wastewater Treatment Systems" dated March 4, 2014, there is also a very large reduction in the water supply requirements when changing from a Cabaret / Restaurant use, which requires 8750 gpd for 250 seats, to four 3-Bedroom Apartments which require 1320 gpd (110 gpd x 12 bedrooms), a substantial saving of 7,430 gpd.

The apartments are expected to be more marketable as well.

Please review and let me know if you have any comments.  
Thanks, as always, for your help.

CC : Phil Pine, Managing Partner of SMITH RIDGE ASSOCIATES, LLC

PO Box 384  
19 NO. SALEM RD. 2<sup>nd</sup> FL.  
CROSS RIVER, NY 10518  
914.763.5887  
Email RJE@CRARCH.com



CROSS  
RIVER  
ARCHITECTS,  
LLC

ROBERT J. EBERTS, R.A.  
PRINCIPAL ARCHITECT

DATE: 29 Nov 2021

TO: Janet Andersen Chairwoman  
Lewisboro Planning Board

FROM: Bob Eberts  
CROSS RIVER ARCHITECTS, LLC

RE: Oakridge Commons Building 9B  
450 Oakridge Commons, South Salem, NY 10590  
Convert Heights Cabaret to Residential Apartments

Board Members,

We are in receipt of the review memo from Kellard Sessions dated Nov 12, 2021.  
We are responding to those comments as follows:

1. The board requested that we delay the submission to the Building Inspector until floor plans are ready.
2. No response required.
3. Oakridge Condominium is being contacted to see if they are amenable to the four proposed apartments sharing their recreation facility. If they are not amenable, the required fee will be paid.
4. The floor plan is currently being designed, but should be available for the public hearing.
- 5A. This matter was discussed at the Lewisboro Town Board meeting on Nov 22, 2021. They requested a letter from WCHD. It is on the Dec 9 agenda.
- 5B. The applicant is proposing that any residential expansion on site will include a minimum of three electric vehicle charging stations, but that they not be added at this time. A note indicating same is now located on drawing SP1.
- 5C. The applicant has requested a letter from Westchester County Health Dept indicating whether their approval is required. We have been verbally told that it is not required and that they have no objection. We will continue to pursue their response in writing.
- 5D. The water readings for the townhouses on Boulder Ridge are attached. We have included a summary page which we believe makes it easier to read.

The analysis shows 3,027 Gallons Per Day used by the 31 units.  
The 2 Bdrm units use on average 102 GPD or 51 GPD per Bdrm.  
The 3 Bdrm units use on average 81 GPD or 27 GPD per Bdrm.  
Somewhat surprising but our 3 Bdrm units are mostly Empty Nesters.

The projections per DEC use 110 GPD per Bdrm 2-3+ times actual.

- 5E. Notes have been added to Drawing SP1 indicating any future residential expansion of non-residential space will include the reconfiguration of the parking lot to eliminate unnecessary and non-required parking and improvements to on-site landscaping and lighting. A note was also added indicating that any future residential expansion will include the currently proposed residential units when calculating required affordable housing units, if any.

We request that a resolution be prepared to be voted on at the next planning board meeting. Please review and let me know if you have any comments.  
Thanks, as always, for your help.

CC: Phil Pine, Managing Partner of SMITH RIDGE ASSOCIATES, LLC

Attachments: Drawing SP1 revision dated Nov 16, 2021  
Boulder Ridge Water Use Readings

PO Box 384  
19 NO. SALEM RD. 2<sup>nd</sup> FL.  
CROSS RIVER, NY 10518  
914.763.5887  
Email RJE@CRARCH.com



Calculations per NYSDEC "Design Standards for Intermediate sized Wastewater Treatment Systems" dated March 4, 2014

CABARET / RESTAURANT WITH 250 SEATS  
250 SEATS X 35 GAL / DAY = 8750 GPD

4 – THREE BEDROOM APARTMENTS  
12 BEDROOMS X 110 GAL / DAY = 1,320 GPD

TOTAL WATER SAVINGS = 7,430 GPD

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Journal compilation © 2006 Blackwell Publishing Ltd

EXISTING USE- CABARET / RESTAURANT  
PROPOSED USE - MULTI FAMILY RESIDENTIAL (SUBJECT TO REQUIREMENTS OF 220-26 OF  
LEWISBORO ZONING ORDINANCE

REQUIREMENTS	REQUIRED	EXISTING	PROPOSED
MIN. LOT SIZE –	1/2 AC	10.059 AC	NO CHANGE
MIN FRONTAGE YARDS	100'	816.78'	NO CHANGE
MIN. FRONT FROM CL ST	45'	84.7'	NO CHANGE
MIN. FRONT FROM PROP LINE	20'	58.7'	NO CHANGE
MIN. SIDE	15' / 40' at MF	128.1' / 47.8'	NO CHANGE
MIN. REAR	50'	117.8' +/-	NO CHANGE
MAX BLDG HEIGHT STORIES / FT	30'	29'	NO CHANGE
MAX. BLDG COVERAGE	20% / 87,534 SF	14.7% / 64,804 SF	NO CHANGE
MAX SITE COVERAGE	60% / 262,902 SF	58.9% / 258,097 SF	NO CHANGE
MAX FLOOR AREA RATIO	30% / 131,451 SF	16.5% / 72,135 SF	NO CHANGE

--	--

MIN LOT SIZE	15,000 SF (WHEN SERVED BY PUBLIC WATER AND SEWER 2 UNITS PER ACRE (NOT INCL. WETLANDS LOT WITH OF ADJ. 1 FAM RESIDENTIAL DISTRICT.	438,170 SF (INCL 10,000 SF WETLAND)	438,170 SF
DEVELOPMENT DENSITY		428170/43560 X 2= 19 UNITS	4 UNITS
DENSITY TRANSITION AREA		NOT ADJ. TO 1 FAM RESIDENTIAL DISTRICT	NO CHANGE
WATER AND SEWER CONNECTION REQMTS	PB MAY REQUIRE CONNECTION	EXISTING CONNECTION	NO CHANGE
OPEN SPACE	30% = 131,451 SF 300 SF / UNIT OR PAY \$ PER UNIT	41.1% = 180073 SF 300 SF / UNIT (OR REQUIRED FEE) = 1200 SF	NO CHANGE FREE MEMBERSHIP TO LAKESIDE FITNESS -1600 SF
RECREATION	RECREATION FEE 2 SPACES/UNIT + 1 SPACE FOR EACH UNIT WITH TWO OR MORE BEDROOMS	4 UNITS X 3 SPACES = 12 SPACES	SEE PARKING TABLE DWG SP1

### PARKING SPACE CALCULATION

Name of Tennant	S/F	Seats	Zoning	Parking Spaces	Building #
Bank	2600		1/150 GFA	18	1
Vista Beverage Inc.	2900		1/200 GFA	14	1
JNR Pharmacy	4000		1/200 GFA	20	1
US Post Office	4400		1/200 GFA	22	1
Oakridge Farmers Market	6000		1/125 GFA	48	1
Vista Wine	1700		1/200 GFA	9	2
Panda Gardens	1100		1/200 GFA	6	2
Joan 21 Cleaners Corp	1630		1/200 GFA	9	2
Zhen Lan Xu	1350		1/200 GFA	7	2
LaFamilia	2500	45	1/2 Seats	23	2
LaFamilia's Outdoor Seating	450	24		12	2
LRD Sales	1900		1/250 GRD	8	4
Anderson Pet Grooming	1250		1/200 GFA	7	4
Loffredo DDS	1500		1 practitioner	5	4
450 - SR Manufacturer LLC	950		1/250 GFA	4	4
460 - LR Dev LLC	950		1/250 GFA	4	4
470 - Office (Vacant)	550		1/250 GFA	3	4
480 - Office (Vacant)	550		1/250 GFA	3	4
490 - Office (Vacant)	1400		1/250 GFA	6	4
Bldg 4 Enclosed (Previously Approved, Not Constructed)	1600		1/200 GFA	8	4
Lakeside Fitness	1600		1/250 GFA	7	6
Smithridge Veterinarian	4900		5 practitioners	25	6
Office (Vacant)	1100		1/250 GFA	5	7
Day Care Facility	6600		1/200 GFA	33	8
Fitness/Karate Facility	11450		1/200 GFA	58	9A & B
Heights Catering Facility	6000	250		125	9B
Heights Outdoor Seating	1178	48		0 *	9B
Gas Station	1286		1 per employee	1	10
Car Wash Bay at Gas Station	480		1 per employee	1	10

\_\_\_\_\_

Eliminate Heights Catering Facility	-125	9B
Add (4) 3 Bedroom Residential Apartments	12	9B













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Total Parking Spaces Existing and Proposed	428 **
--	--------

\*\* The hours of operation among the tenants varies. No additional parking is required.

SYMBOL LEGEND

Description
-------------

Symbol	Description
	PROPERTY LINE
	SETBACK LINE
	AREA OF DISTURBANCE LINE
	WETLAND BUFFER LINE
	EXISTING FENCE
	EXISTING BUILDING
	PROPOSED APARTMENTS IN EXISTING BUILDING
	EXISTING SIDEWALK
	EXISTING MACADAM PAVING (NO PARKING IN STRIPED AREAS)
	EXISTING POLE LIGHT
	EXISTING POST MOUNTED SIGN
	FUTURE MACADAM PARKING LOT, IF REQUIRED

## 4. NEW RESIDENTIAL TENANTS CI

1. NEW RESIDENTIAL TENANTS SHALL HAVE MEMBERSHIP TO THE EXISTING 1600 SF LAKESIDE FITNESS CENTER LOCATED ON SITE WHICH WILL SATISFY THE REQUIREMENT FOR THE RECREATION AREA.
2. ANY FUTURE RESIDENTIAL EXPANSION OF EXISTING NON-RESIDENTIAL SPACE ON THIS SITE WILL INCLUDE THE RECONFIGURATION OF THE PARKING LOT TO ELIMINATE UNNECESSARY AND NON-REQUIRED PARKING AND IMPROVEMENTS TO ON-SITE LANDSCAPING AND LIGHTING.
3. ANY RESIDENTIAL EXPANSION ON SITE WILL INCORPORATE THE CURRENTLY PROPOSED RESIDENTIAL UNITS IN THE CALCULATION OF REQUIRED AFFORDABLE HOUSING UNITS.
4. ANY RESIDENTIAL EXPANSION ON SITE WILL INCLUDE A MINIMUM OF THREE ELECTRIC VEHICLE CHARGING STATIONS.

APPROVED BY RESOLUTION OF THE BOARD OF DIRECTORS: \_\_\_\_\_

Reviewed for compliance with the Planning Board Association: \_\_\_\_\_

[illegible]

CLARIFICACION: CONCEPTOS Y DEFINICIONES

---

ANALYTICAL	
------------	--



7470

**CROSS RIVER ARCHITECTS, LLC**  
ROBERT J. EBERTS R.A., PRINCIPAL

19 NO. SALEM RD., 2nd FL.,  
CROSS RIVER, N.Y. 10518  
914.763.3887  
FAX 914.763.8409

OAKRIDGE COMMONS SHOPPING CENTER  
BUILDING 9B APARTMENTS  
450 OAKRIDGE COMMONS

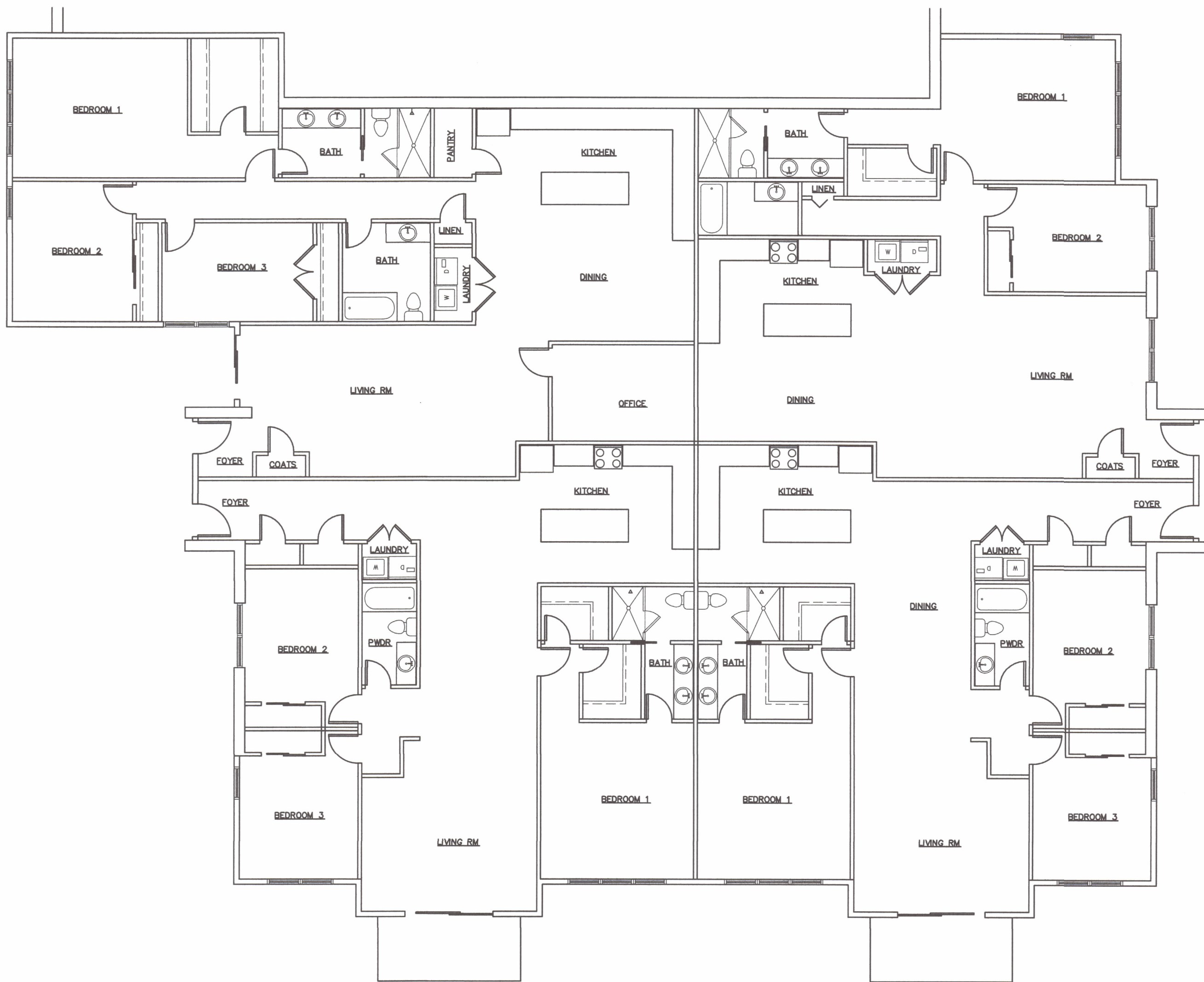
DATE	SCALE	PROJ. #
SEPT. 13, 2021	1"=40'	

SP/1





No.	Desc.	Date







3 NORTH ELEVATION  
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"



1 WEST ELEVATION  
SCALE: 1/8" = 1'-0"

REVISIONS			
No.	Desc.	No.	Date



CROSS RIVER ARCHITECTS, LLC  
ROBERT J. EBERTS R.A., PRINCIPAL  
P.O. BOX 384  
19 NO. SALEM RD., 2nd FL.  
CROSS RIVER, N.Y. 10518  
914.763.5887  
FAX 914.763.8409

PROJECT  
OAKRIDGE COMMON – BLDG. #9  
260 ROUTE 123  
SOUTH SALEM, NEW YORK 10590  
TITLE  
EXTERIOR ELEVATIONS  
DATE  
OCTOBER 15, 2021  
SCALE  
1/8" = 1'-0"  
PROJ. #



**Smith Ridge Associates LLC**  
**450 Oakridge Common**  
**South Salem, New York 10590**

November 8, 2021

Supervisor Peter Parsons

Town of Lewisboro

11 Main Street

South Salem, New York 10590

RE: Change of Use from restaurant to residential

Dear Supervisor Parsons:

The Planning Board at their October 19, 2021 meeting reviewed a change of use request from restaurant to 4 residential apartments at Oakridge Common (see narrative attached). The Planning Board was generally in favor of our proposed creation of 4 new rental units provided there will be no adverse impacts on the sewage plant. Smith Ridge Associates LLC has been asked to get confirmation that there is capacity for the new residential use.

The proposed use requires 1,320 gallons per day as per NYS DEC design standards. This would be a huge savings from the existing approved use (see calculations attached).

We would also like to submit the Water usage figures based on billed water usage and Well water usage.

We are attaching the Water Usage billed for 2019, 2020, and 2021 which was between 33-37000 GPD.

We are also attaching Water usage from the wells for:

August 2021 - 67,000 GPD; September 2021 - 57,000 GPD; October 2021 – 58,000 GPD

Daily backwashing is estimated to be 10,000 GPD and the quarterly flushing could explain a few thousand GPD increase in August's well usage.

The plant is approved for 80,000 GPD so based on these #'s the 1,320 GPD would be well within the Water Plants capacity.

Respectfully submitted,

Philip G. Pine

Smith Ridge Associates LLC

Managing Member

CC: Planning Board, Town of Lewisboro



## OAKRIDGE 9B APARTMENTS WATER USE CALCULATIONS

Calculations per NYSDEC "Design Standards for Intermediate sized Wastewater Treatment Systems" dated March 4, 2014

### **EXISTING APPROVED USE -**

CABARET / RESTAURANT WITH 250 SEATS

250 SEATS X 35 GAL / DAY = **8750 GPD**

### **PROPOSED USE –**

4 – THREE BEDROOM APARTMENTS

12 BEDROOMS X 110 GAL / DAY = **1,320 GPD**

**TOTAL WATER SAVINGS = 7,430 GPD**



## Boulder Ridge Water Use

Unit #	Beds	Q 4, 2019	Q 1, 2020	Q 2, 2020	Q31, 2020	Q41, 2020	Q 1, 2021	Q2, 2021	Q3, 2021	Totals 2 years	Annual Usage
N/A	2	0	124	197	2863	1531	1415	1317	5434	N/A	
1	2	5785	5727	5430	5397	5635	6010	4402	4392	42,778	21,389
2	2	9881	9045	10594	10325	10896	7568	10031	10244	78,584	39,292
3	2	14672	0	10835	9939	8861	7408	9260	8867	69,842	34,921
4	2	51	7081	10978	11672	13283	10374	11135	11472	76,046	38,023
5	2	10427	9442	10571	9407	10176	10624	10210	10625	81,482	40,741
6	2	8756	10993	11225	10931	10361	10949	8475	9377	81,067	40,534
7	2	11718	15013	15713	16230	15840	15545	15326	15080	120,465	60,233
8	2	4562	20	3232	8241	5041	173	3310	8075	32,654	16,327
9	2	13560	17630	10630	10303	13594	11795	9948	9912	97,372	48,686
10	2	5730	5480	3640	4390	4520	4507	4264	7569	40,100	20,050
11	2	5750	7820	5170	5550	6030	6142	5723	5965	48,150	24,075
12	2	8170	12670	6750	7360	8840	8905	7963	8522	69,180	34,590
13	2	12640	15290	9210	10610	13470	12145	11358	13687	98,410	49,205
14	2	5400	6980	5120	5810	6210	6030	5792	7188	48,530	24,265
15	2	4610	7770	5340	5390	6430	6223	5848	6345	47,956	23,978
16	2	12290	15840	10540	11960	12950	12822	12068	13750	102,220	51,110
17	2	12430	14370	4980	60	1810	1712	895	15713	51,970	25,985
18	2	7780	11770	7230	7856	7160	8504	7687	11823	69,810	34,905
19	2	16210	19290	10430	14360	15420	14875	13771	18034	122,390	61,195
20	2	15480	19940	13960	16830	11740	15617	14536	12936	121,039	60,520
21	2	12096	13333	11746	4841	13605	12712	11503	9758	89,594	44,797
22	2	5850	12080	5120	3340	10880	7855	6798	10328	62,251	31,126
23	2	7580	14890	14220	6430	5940	10370	9240	10410	79,080	39,540
24	2	10650	11490	7400	10860	14370	11030	10915	10377	87,092	43,546
25	2	1900	30	4770	6950	6000	4437	5539	7664	37,290	18,645
Total 2 Bdrms										927,676	
	Beds	Q 4, 2019	Q 1, 2020	Q 2, 2020	Q31, 2020	Q41, 2020	Q 1, 2021	Q2, 2021	Q3, 2021		
26	3	5406	5032	6449	6283	5665	4976	6384	6427	46,622	23,311
27	3	6828	5529	6677	6020	6582	5993	5905	5967	49,501	24,751
28	3	6486	8068	9507	8893	9636	16378	4792	16033	79,793	39,897
29	3	4203	3622	3461	3849	6214	5434	4794	3625	35,202	17,601
30	3	11121	6962	9596	11841	14882	8507	10417	12180	85,506	42,753
31	3	462	5694	13795	10882	7924	5955	6702	6038	57,452	28,726
Total 3 Bdrms										177,038	
Total 2/3 Bdrms											



**Boulder Ridge Water Use**

Summary - GPD

Unit #

Annual  
UsageGallons  
Per Day# of  
UnitsAverage  
GPD  
Per UnitAverage  
GPD  
Per Bdrm

1	Water Usage	21,389	58.60			
2	Water Usage	39,292	107.65			
3	Water Usage	34,921	95.67			
4	Water Usage	38,023	104.17			
5	Water Usage	40,741	111.62			
6	Water Usage	40,534	111.05			
7	Water Usage	60,233	165.02			
8	Water Usage	16,327	44.73			
9	Water Usage	48,686	133.39			
10	Water Usage	20,050	54.93			
11	Water Usage	24,075	65.96			
12	Water Usage	34,590	94.77			
13	Water Usage	49,205	134.81			
14	Water Usage	24,265	66.48			
15	Water Usage	23,978	65.69			
16	Water Usage	51,110	140.03			
17	Water Usage	25,985	71.19			
18	Water Usage	34,905	95.63			
19	Water Usage	61,195	167.66			
20	Water Usage	60,520	165.81			
21	Water Usage	44,797	122.73			
22	Water Usage	31,126	85.28			
23	Water Usage	39,540	108.33			
24	Water Usage	43,546	119.30			
25	Water Usage	18,645	51.08			
	Total Usage 2 Bdrms	927,676	2,541.58	25	101.66	50.83
26	Water Usage	23,311	63.87			
27	Water Usage	24,751	67.81			
28	Water Usage	39,897	109.31			
29	Water Usage	17,601	48.22			
30	Water Usage	42,753	117.13			
31	Water Usage	28,726	78.70			
	Total Usage 3 Bdrms	177,038	485.04	6	80.84	26.95
	Totals 2/3 Bdrms	1,104,714	3,027	31	97.63	44.51



## Ciorsdan Conran

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**From:** Pj Jacke <pjjacke@yahoo.com>  
**Sent:** Wednesday, November 17, 2021 8:05 PM  
**To:** planning@lewisborogov.com; Councilman Tony Goncalves; Michael Lombardo; Erica Agro  
**Subject:** Public Forums November 16 and December 21

Dear Ms. Anderson and Members of The Planning Board,

I had received the Notice of Public Hearing and searched through all the Links provided in the Certified Letter. To be honest, the legal narratives were not clear to me. Looked like the Public Forum was about a NEW development labeled Oakridge Gardens.

The site map looked like it was the restaurant, not the existing Laurel Ridge Townhomes. It wasn't until the opening of the meeting Nov. 16 that a statement noted that the Oakridge Gardens was actually the already built Laurel Ridge development! I did not see that in the links provided in the Certified Letter. Apparently I was not the only one confused as there was a statement that there were calls of inquiry from the public, but not any objections.

As an Oakridge neighbor stated during the Public Forum, it has been requested many times to the now Town Supervisor, Tony Goncalves, who was the only person on the Town Board who gave any seriousness to the dysfunction OWD plant, at one of our OWD meetings that there be a Moratorium on building until the OWD situation is rectified, which can take many years, awaiting funds from the Federal Gov't, Grants, etc.

You recommended that if the Public had any objections to the Release of Funds or future development that we need to send emails to the Planning Board and the Town Board, so this is what I am doing.

I have no objection to the release of funds for the already developed properites. I do have objection to the continued NEW developments putting even more stress on an already malfunctioning OWD. I had asked Tony Goncalves at one of the OWD meetings how the Town Board could have ever approved the construction of the Children's Corner, new Offices, a Gas Station so close to an already existing Gas Station and a Car Wash. Mr. Goncalves stated he was not on the Board at that time. Well he's not only on the Board but is now our Town Supervisor, therefore, this being sent to him as well.

I commend you and other Planning Board members for not accepting the Absence of Architectural Plans for the proposed 4 3Bedroom or perhaps some 2 or 1 Bedroom units, depending upon "what the market bears" at the time of construction and requesting specific plans and planning for a Public Forum for this discussion on December 21st.

At the OWD meeting that Mr. Goncalves ran, all parties involved with OWD were there. I believe it was VRI Engineering representative that stated in the original plans there was projection for more development at Oakridge and that the OWD could handle it. CAPACITY is only part of Oakridge residents' and Laurel Ridge residents' concerns (see Vistans for Safe Water correspondences with Mr. Goncalves). The QUALITY and SAFETY of our water is our MAJOR CONCERN..

I've lived at Oakridge for 12 years. The first 6 I was here I had NO PROBLEMS with my water, Neighbors complained about Grey, Brown, Pink, etc. water. Well a few months after the initiation of construction of Laurel Ridge Townhomes I started to get Grey, Brown, Pink, etc. water. I invested in a Water Filtration System as have many Oakridge and Laure Ridge Townhome owners (not aware of Conant Valley), which was necessary, as until Mr. Goncalves joined the Town Board, no one really listened to us. Fortunately he is now the Supervisor and is well aware of our situation. I am trusting that the Planning Board and the Town Board will work together regarding FUTURE construction.

To be clear, I support Affordable Housing and might even qualify myself; however, it isn't WHAT is being built, it is THAT any new construction is being approved.

Thank you for listening.

Patti Jean Jacke  
102 Fox Run



## Ciorsdan Conran

---

**From:** Sirignano Law Office <lawoffice@sirignano.us>  
**Sent:** Tuesday, December 7, 2021 11:18 AM  
**To:** Ciorsdan Conran  
**Subject:** Mercedes Benz of Goldens Bridge/Cal.#10-17 P.B.

Ciorsdan,

Tom Maoli (Celebrity Motor Cars, LLC) respectfully requests that the Planning Board grant a further extension of the Amended Site Plan Approval and Town Stormwater Permit adopted 3/17/2020.

Our Project Team has made a recent submission to the Board and its consultants which demonstrates considerable progress in completing most, but not all, conditions of the Board's Resolution.

We are happy to answer any questions at the Board's next meeting.

Thank you,

Michael

**Michael Fuller Sirignano**

Attorney and Counselor at Law

Old Post Road Professional Building

892 Route 35, PO Box 784

Cross River, NY 10518

Telephone: (914) 763-5500

Fax: (914) 763-9589


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**MEMORANDUM**

TO: Chairperson Janet Andersen and  
Members of Lewisboro Planning Board

CC: Ciorsdan Conran  
Judson Siebert, Esq.  
Joseph Angiello

FROM: Jan K. Johannessen, AICP   
Joseph M. Cermele, P.E., CFM  
Town Consulting Professionals

DATE: December 16, 2021

RE: Sophia Chenevert Schilke & Garrett Schilke and Debra L. Chenevert  
3 Beaver Pond Lane  
Section 46, Block 9827, Lot 184

---

This office has reviewed the submitted plans and we offer the below comments for the Board's consideration:

1. The planting schedule on planting plan shall identify the proposed trees to be 2-inch caliper (min.) as discussed and as noted in the applicant's cover letter; remove references to proposed tree height.
2. As previously requested, revise the planting plan to identify the seed specifications for the two (2) different proposed seed types (provide list of specie types included within the mix).
3. Provide a north arrow, scale and scale bar on the existing conditions and planting plan; proposed no mow zones shall be delineated in the field by use of monuments or other permanent demarcation.



Chairperson Janet Andersen  
December 16, 2021  
Page 2 of 2

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

**PLANS REVIEWED, PREPARED BY STEVE MARINO, PWS, DATED NOVEMBER 29, 2021:**

- Buffer Restoration Plan – Existing Conditions Plan
- Buffer Restoration Plan – Planting Plan

**DOCUMENT REVIEWED:**

- Letter, prepared by Tim Miller Associates, Inc., dated November 29, 2021

JKJ/dc

[https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16\\_LWPB\\_Schilke - 3 Beaver Pond Ln\\_Review Memo.docx](https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16_LWPB_Schilke - 3 Beaver Pond Ln_Review Memo.docx)



TO: The Town of Lewisboro Planning Board  
FROM: Lewisboro Conservation Advisory Council  
SUBJECT: Schilke Residence, 3 Beaver Pond, South Salem, NY 10590  
DATE: December 9, 2021

---

The Conservation Advisory Council (CAC) has reviewed the updated materials submitted by the applicant for the correction of a violation and remediation of wetlands. The applicant has updated the mitigation planting plan to a total of 16 new trees and 70 shrubs.

As this is a violation, we are repeating our request for a minimum of a 2:1 tree replacement. The applicant has not acknowledged where the original trees were removed, nor provided a detailed description of the size or species of trees removed. In reviewing aerial images from 2021, it is evident that mature shade trees were clear cut from alongside the pond, fragmenting the forest.

The CAC would like to see:

- A 2:1 tree replacement, for a total of 24 trees. New trees can be spaced out to be inside the area formerly dominated by knotweed along the pond edge and buffer region.



**TIM  
MILLER  
ASSOCIATES, INC.**

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*10 North Street, Cold Spring, NY 10516      (845) 265-4400      265-4418 fax      www.timmillerassociates.com*

November 29, 2021

Mr. Jan Johannessen  
Wetland Inspector  
Town of Lewisboro  
11 Main Street  
South Salem, NY 10590

Re:    Alleged Violation of Wetland and Watercourse Law  
      File #03-20WV, Section 46, Block 9827, Lot 184  
      Sophie Chenevert Schilke & Garrett Schilke and Debra Chenevert  
      3 Beaver Pond Road, South Salem

Dear Mr. Johannessen:

Regarding the referenced wetland application, we received your comment letter dated October 14, 2021 as well as comments from the CAC dated October 13, 2021. We offer the following responses to these memos.

1. The Existing Conditions plan has been revised to remove the proposed trees and shrubs legend.
2. The wetland delineation shown on the plans was taken from the original wetland application for construction of the house and septic system by the previous owner in 2000. No information was provided to us as to who conducted that delineation. Based on my experience, it is my opinion that the line as shown provides for a larger wetland than actually exists in the field, but rather than take the time and expense of re-delineating the wetland and going back to the DEC for confirmation, we will live with the line as shown. The plan has been revised to show that this is a DEC wetland and now shows both the 100 and 150 foot buffer areas.
3. We acknowledge that a small amount of fill was brought into the site to level off the area in question. The topography from the 2001 survey shows that this area had a gentle slope for the first 50 feet from the retaining wall down to the wetland line, then sloped more steeply down to the wetland. The current condition is not significantly different than that although it is flatter. It is the applicant's preference to not bring large machinery on to the site to remove that small amount of fill, but rather to continue to restore it as a wildflower meadow as shown on the plans. Northeast wildflower mix from Site One Landscape Supply has already been purchased for this area. This will be mixed with a K31 fescue to stabilize and complete cover of the area while the wildflowers become established. The



area will be mowed once a year to maintain the herbaceous character and prevent any new woody plants (or knotweed) from becoming established.

Additional shrubs have are now shown on the slope at the eastern edge of this wildflower meadow to better protect it from potential erosion.

4. The proposed trees will have a minimum two inch caliper. The wildflower seed mix includes Baby's breath, black-eyed susan, catchfly, coneflower, primrose, gayfeather, indian blanket, coreopsis, aster, coneflower, daisy, snapdragon and pinks. It has been purchased from Site One Landscape Supply.
5. 12,800 sf of area will be seeded with the wildflower mix (approximately five pounds). 8,400 sf will be seeded with perennial native grass mix.
6. The notes on the Sheet 2 have been updated as recommended.
7. The plan has been updated to include additional information about annual mowing.
8. To date the property owner has removed a significant part of the knotweed infestation closest to the home. It is not proposed to clear additional areas at this time. If this ever becomes part of the plan, the property owners will notify the town in advance. We would expect that any additional removal of knotweed would be considered beneficial to the overall wetland system.

Regarding the CAC comments, we have added three more trees and a number of additional shrubs. We feel it is important not to overcrowd the trees, and while they will not form a closed canopy at first they will eventually grow and it is better to not have them too close together. Several of the trees that were removed were dead green ash, as are two standing dead trees that remain on site. No new ash will be planted.

As described in our initial submission, the dry, non-degraded wood chips on the surface will be removed and set aside for use as mulch for the new trees. Below this initial 4 – 6 inches the existing chips have broken down into an excellent planting medium for the new trees and grasses and will be kept on site.

As noted above, the property owner has no plans at this time to expand the area of knotweed removal, but may do so in increments in the future. They will occasionally cut through the standing monoculture to create paths for exploration by their children, but would prefer not to be committed to a defined maintenance program at this time. A significant area of knotweed removal has already taken place with the removal of the old trees and spreading of the wood chips. These areas will continue to be maintained to keep the knotweed under some control.

The area of pond clearing that we referred to in our initial submission was off the property on the east side of the pond, where the property owner there maintains lawn area directly up to the edge of the pond. The Schilke's do not maintain lawn at the pond edge, nor do they fertilize or otherwise treat the area except as noted. No additional treatment or planting of the pond edge is proposed at this time.



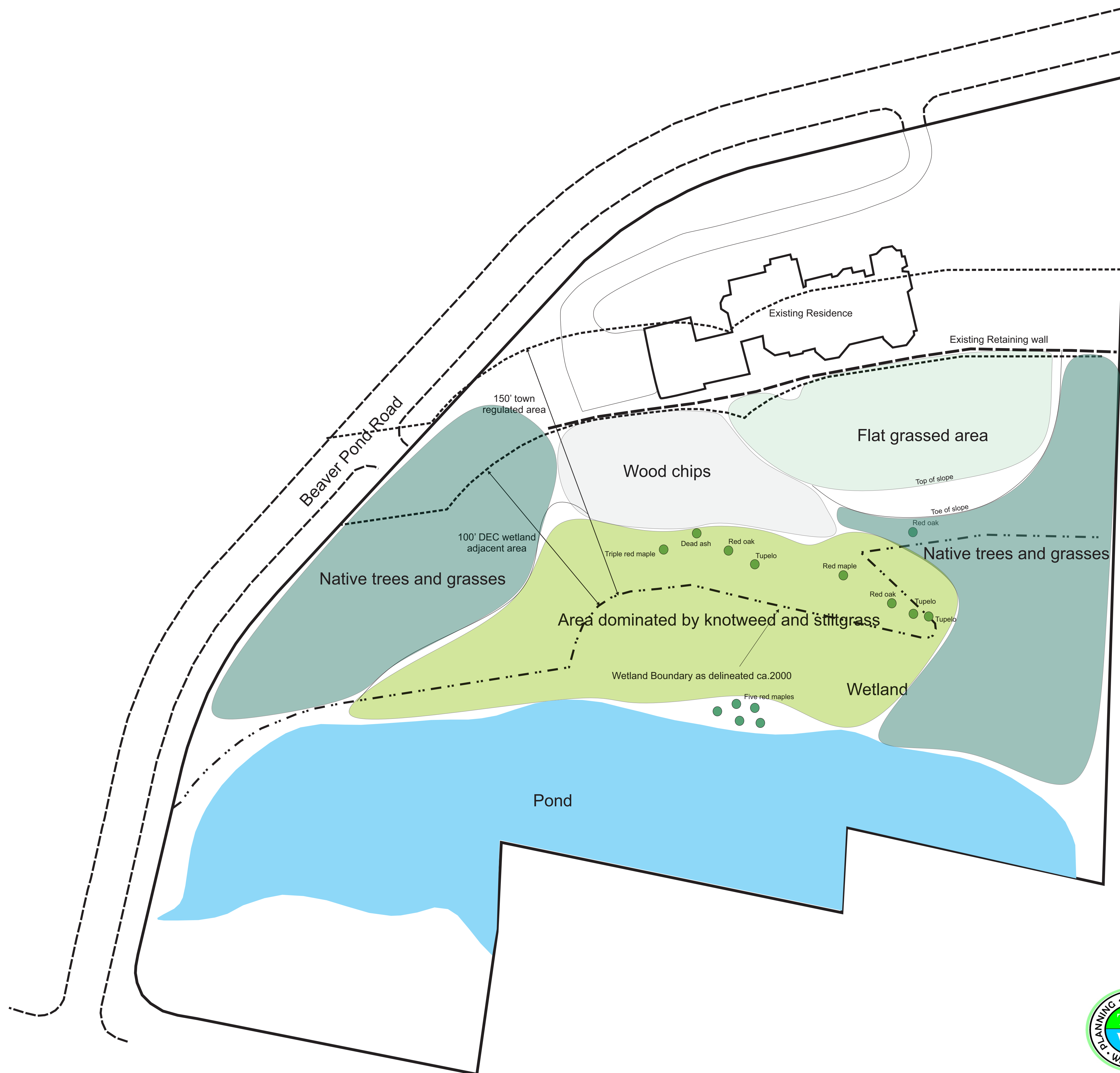
We look forward to discussing this matter with you and the Board at the meeting on December 21, 2021.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Marino", followed by a period.

Steve Marino, PWS  
Principal/Senior Wetland Scientist  
Tim Miller Associates, Inc.





● Existing tree



Mitigation plan prepared by Steve Marino, PWS  
Tim Miller Associates, Inc.  
Cold Spring, NY

Buffer Restoration Plan - Existing Conditions Plan  
3 Beaver Pond Road  
Town of Lewisboro, Westchester County  
Basemap Source: Bibbo Associates  
November 29, 2021



Plant Species Choices for Wetland Buffer Enhancement/Restoration				
Map Symbol	Quantity*	Scientific Name	Common Name	Size
<b>Trees</b>				
Aru	8	Acer rubrum	Red Maple	5' - 6'
Ns	3	Nyssa sylvatica	Black gum	5' - 6'
Qp	5	Quercus palustris	Pin oak	5' - 6'
<b>Shrubs</b>				
CSe	15	Cornus sericea	Redosier dogwood	3' - 4'
IV	15	Ilex verticillata	Winterberry holly	3' - 4'
VP	5	Viburnum prunifolium	Nannyberry viburnum	4' - 5'
VD	15	Viburnum dentatum	Arrowwood	4' - 5'
Cam	20	Cornus amomum	Silky dogwood	3' - 4'
<b>Seed Mix</b>				
		LESCO Northeastern Wildflower		
PPM	6 pounds	Meadow Mix or equivalent		
		Pinelands Warm Season Grass		
PWS	6 pounds	Mix or equivalent		
* Plant quantities will be held, but final locations will be determined in the field following removal of invasive and dead plant materials.				

Wetland Buffer Restoration Areas

The intent of this plan is to restore areas of the wetland controlled area that were cleared of trees and undergrowth and mulched with wood chips to suppress weed growth.

The wood chips, thatch, vegetation and other woody debris that have not decomposed will be raked off by hand and stockpiled to be used as mulch around the new trees and shrubs. The underlying compost and native soil will be used as a base for the plantings and seeding of the area as shown on the plan. This compost will be raked and/or scarified, and a thin layer of topsoil applied if necessary. After germination of the seed and establishment of the woody plantings, the area will be mowed once per year to prevent reinfestation with knotweed and stiltgrass.

All planting will proceed by hand. Materials will be brought to the site in good condition (see below) and then placed in central drop locations. The materials will then be hand-carried to their planting locations and in turn, planted by hand. Only rounded, shallow planting shovels will be used in this effort.

Planting will be done in spring or early summer (between April 1 and July 1). Shrubs may also be planted in the late summer to early fall (September 1 to October 30). In all cases, a hole will be dug twice as deep as the root ball. The only shovels allowed are rounded, shallow spades. The hole will then be backfilled with a thin layer (two to four inches) of rich, organic topsoil, the plant placed inside, the hole backfilled to the top and then gently tamped down. Routine inspections will occur for evidence of deer browsing and deer repellent applied every three months as specified on the Landscaping Plan. If necessary deer fencing will be considered in areas where browsing is most intense.

Seeding within and adjacent to wetland areas should not be completed when there is more than two inches of standing water, or in areas that are likely to be flooded. Seeds should be broadcast by hand or knapsack seeder using the proper seeding rate (15 pounds per acre), and carefully proportioning seed for the entire area. If area has been recently cleared and raked, cover with a light layer of straw mulch following seeding.

At least one pre-construction meeting will occur between the chosen planting contractor/subcontractor and the site environmental systems planner prior to beginning construction on site. The construction monitor will have experience in wetland construction and a Bachelor of Science degree in Natural and/or Physical Resources.

Monitoring and maintenance efforts for the buffer enhancement plantings will take place over a three year period following construction. This will include site visits twice a year, with additional inspections as required depending on conditions. The applicant's environmental monitor will conduct a survey of the site and site conditions will be noted and adjusted as necessary. Plantings will meet or exceed an 85 percent survival rate by the end of the third growing season. If this goal is not met, the site will be re-evaluated, and replanting will be completed as necessary. Invasive species (i.e., Lythrum salicaria and Phragmites australis) will not constitute more than 10 percent of the vegetative community. If this goal is exceeded, measures will be taken to eradicate the invasive species.



Existing tree

Proposed shrub mass

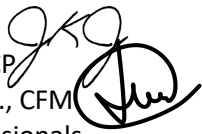
Proposed tree (2" cal.)



## MEMORANDUM

TO: Chairperson Janet Andersen and  
Members of Lewisboro Planning Board

CC: Ciorsdan Conran  
Judson Siebert, Esq.  
Joseph Angiello

FROM: Jan K. Johannessen, AICP   
Joseph M. Cermele, P.E., CFM  
Town Consulting Professionals

DATE: December 16, 2021

RE: Wetland Permit Approval  
Rubina & Satya Nitta  
10 Lambert Ridge  
Sheet 17, Block 10533, Lot 443

### PROJECT DESCRIPTION

The subject property consists of ±.985 acre of land and is located at 10 Lambert Ridge within the R-1A Zoning District. The subject property is developed with a single-family residence and driveway and is connected to a central water and sewage system. The applicant is proposing to install a 38' x 17' inground pool and associated stone patio. An off-site wetland is located at the southwest corner of the subject property and the pool and patio is proposed entirely within the buffer area.

### SEQRA

The proposed action has been preliminarily identified as a Type II Action and is therefore categorically exempt from the State Environmental Quality Review Act (SEQRA).

### REQUIRED APPROVALS/REFERRALS

1. A Wetland Activity Permit and a Town Stormwater Permit is required from the Planning Board; a public hearing is required to be held on the Wetland Permit.



Chairperson Janet Andersen

December 16, 2021

Page 2 of 3

2. The subject property is located within the NYC East of Hudson Watershed and proposed land disturbance exceeds 5,000 s.f. Coverage under New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) will be required.

#### **COMMENTS**

1. Several of the mitigation areas are thinly planted. For instance, Mitigation Area C is 1,381 s.f. in area, but consists of only 15 shrubs. Similar conditions exist for Areas A and B and there are no plants shown in Area G. The location of the no-mow zone is not identified on the plan; please clarify. The no-mow zone can be counted toward mitigation, but shall be delineated in the field with monuments or other permanent markers and notes must be added to the plan regarding the frequency of cutting (not more than twice per year).
2. The proposed pool has increased in size. Please update the Stormwater Pollution Prevention Plan (SWPPP) and demonstrate that the six (6) inch drawdown will be mitigated through the proposed stormwater units.
3. As previously requested, please correct the Wetland Permit Application to indicate the proposed disturbance is between 5,000 s.f. and one (1) acre. Please submit the Town of Lewisboro Stormwater Permit Application.
4. On Sheet L-3 of the Landscape Plan, the north arrow is facing the wrong direction. Please refer to the survey.

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

#### **PLANS REVIEWED, PREPARED BY HILDENBRAND ENGINEERING, DATED NOVEMBER 30, 2021:**

- Existing Conditions (EX.1)
- Stormwater Management Plan (C.100)
- Details (C.200)

#### **PLANS REVIEWED, PREPARED BY CARRIAGE HOUSE GARDENS & ASSOCIATES, INC., DATED NOVEMBER 29, 2021:**

- Proposed Pool Site Plan (L-1)
- Mitigation Plan (L-3)



Chairperson Janet Andersen

December 16, 2021

Page 3 of 3

**DOCUMENTS REVIEWED:**

- Letter, prepared by Carriage House Gardens, dated November 29, 2021
- Letter, prepared by Stephen W. Coleman, dated September 29, 2021
- Survey, prepared by Ronald Persaud, L.S.
- Stormwater Pollution Prevention Plan Report, prepared by Hildenbrand Engineering, dated October 20, 2021
- Draft Notice of Intent, dated November 30, 2021

JKJ/dc

[https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16\\_LWPB\\_Nitta - 10 Lambert Ridge\\_Review Memo.docx](https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16_LWPB_Nitta - 10 Lambert Ridge_Review Memo.docx)





**November 29, 2021**

Jan K. Johannessen  
Chairperson Janet Anderson  
and Members of the Lewisboro Planning Board

RE: Response to 09/16/21 MEMORANDIUM for Nitta Wetland Permit Approval

Dear Jan,

For your consideration please see the responses below as they pertain to items on the September 16, 2021 Memorandum for the Nitta Wetland Permit Approval.

PROJECT DESCRIPTION

Please note the size of the pool has been amended from 35'x16' to 38'x17'

COMMENTS

1. Zoning compliance as per Building Inspector – noted.
2. Stephen Coleman has updated his review letter to communicate that the location of the wetland boundary on the plans is comparable to the wetland boundary he identified in the field. *Letter included in the re-submission.*
3. Mitigation Plan has been updated and included in the re-submission drawing set.
4. Completed - Hildenbrand Engineering.
5. Scale – Noted.
6. Tree species, location, sizes and additional protection notes have been updated on the plans.
7. Completed - Hildenbrand Engineering.
8. Completed - Hildenbrand Engineering.
9. Completed - Hildenbrand Engineering.
10. Completed - Hildenbrand Engineering.
11. Completed - Hildenbrand Engineering.
12. Completed - Hildenbrand Engineering.



13. The low garden wall is included in the updated area of disturbance. Elevations and grading notes are also updated on the site plan.
14. Need to check on this one – can update with Ciorsdan.
15. Updated Topographic Survey completed and included.
16. Utilities are noted on L-1.
17. Fence detail included on L-1.
18. Completed - Hildenbrand Engineering.
19. Zoning Setback is on the site plan L-1.
20. Homeowner has submitted the current property deed.
21. Names of adjacent home owners are noted on the plans.

Thank you for the detailed review. We've worked on the plans and significantly addressed the comments from the September 16<sup>th</sup>, 2021 memorandum. This updated application should be more complete and productive. Please advise with any questions or concerns.

Respectfully,

A handwritten signature in black ink, appearing to read 'Greg Mercurio', with a stylized, cursive script.

Greg Mercurio RLA  
Carriage House Gardens and Associates Inc.





**November 29, 2021**

The Town of Lewsiboro Conservation Advisory Council

RE: Response to 11/08/21 Review for Nitta Planning Board / Wetland Review

Dear The Conservation Advisory Council –

For your consideration please see the responses below to the CAC review letter dated 11/08/21.

- The updated drawings now show the 100' and 150' wetland setbacks and the drawing set includes an updated mitigation plan L-3.
- There is no real alternate location for the pool. As currently designed it is relatively close to the rear foundation of the house and meets all other zoning setback requirements. Alternate configurations would then require variance requests. In addition the design location does not intend to have any trees removed for the construction of the pool.
- One to one wetland mitigation plan L-3 has been included in the updated drawing set. It meets and exceeds the 1:1 required ratio.
- We understand the water treatment type to be chlorine.
- The engineering drainage plans can act as the plan to show the prevention of any escape or overflow from the pool going into the wetland. These plans demonstrate that the wetland area is higher in elevation than the proposed area of disturbance and finished pool construction. Since water travels to lower elevations will be directed away from the pool area to a lower elevation as indicated on drainage plans and then conveyed into infiltrators.

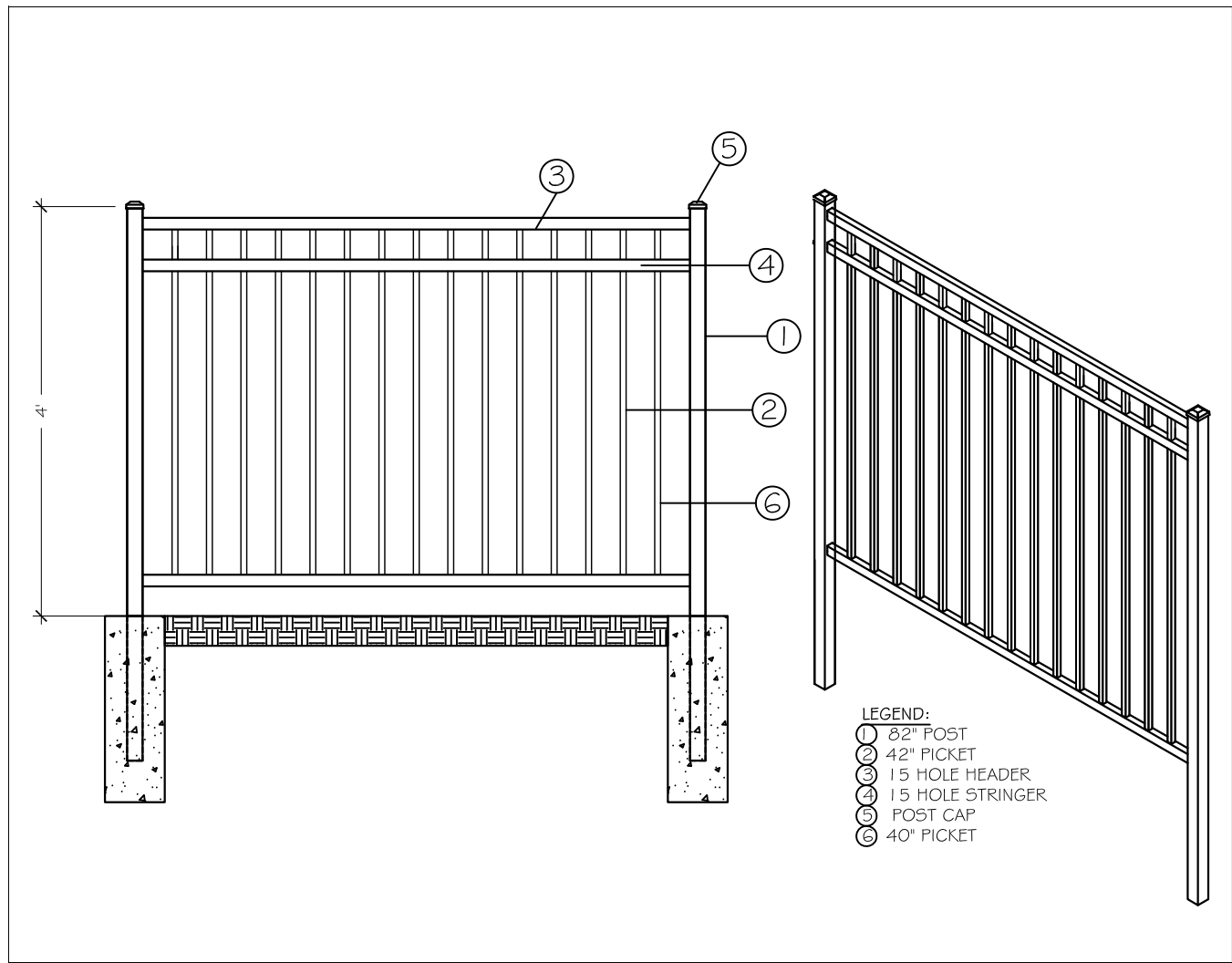
Thank you for the detailed review. Please advise with any additional questions or concerns.

Respectfully,

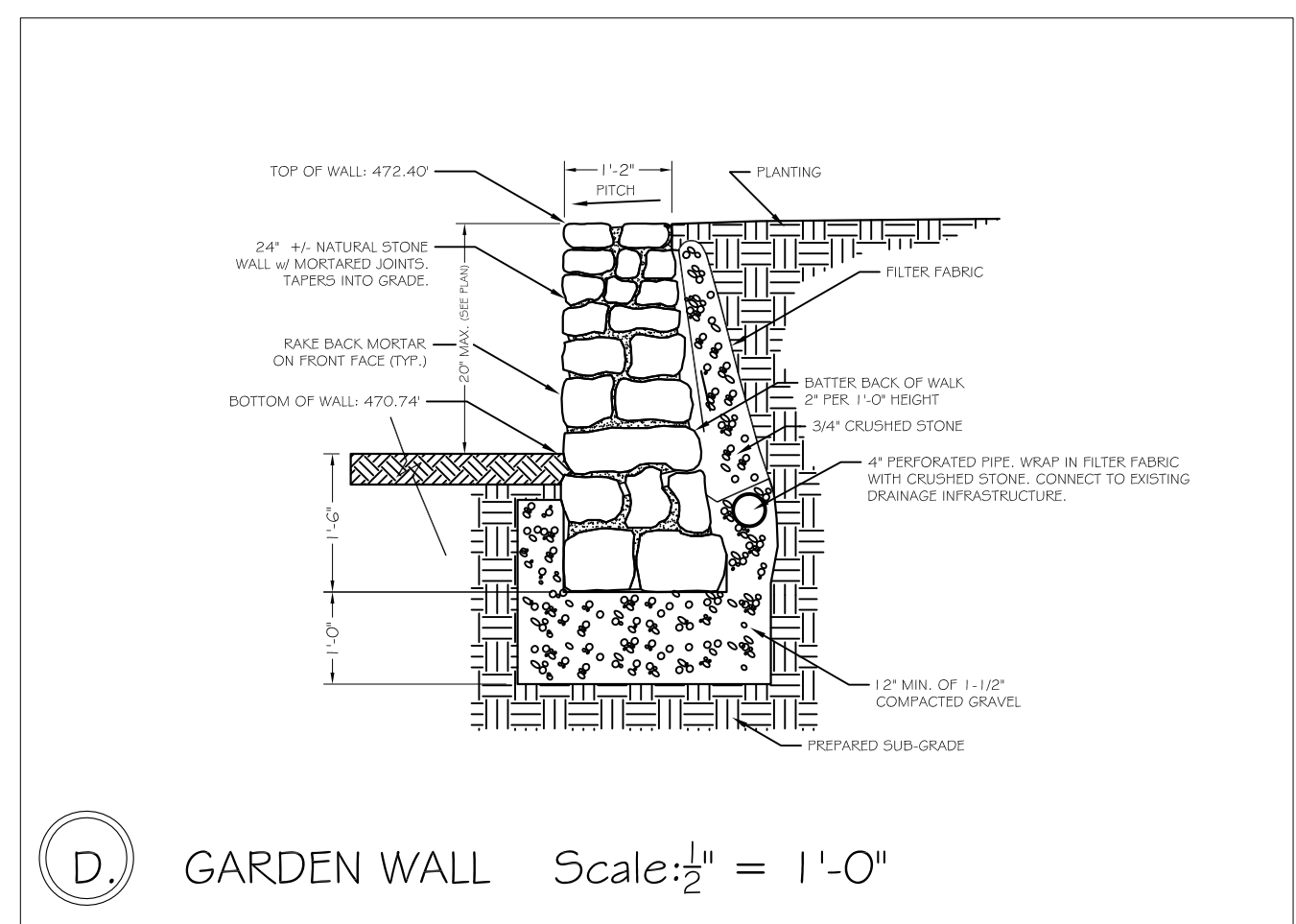
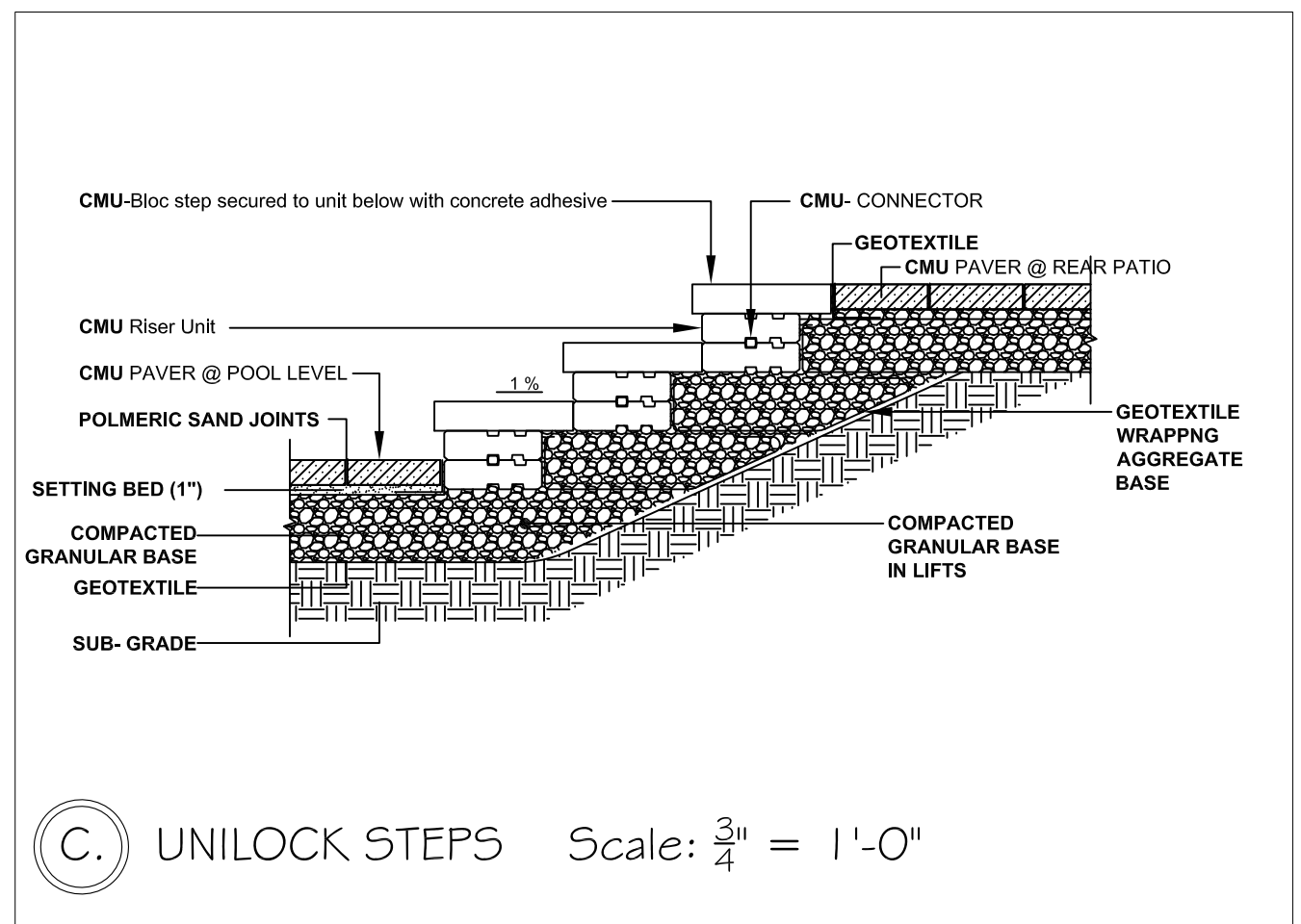
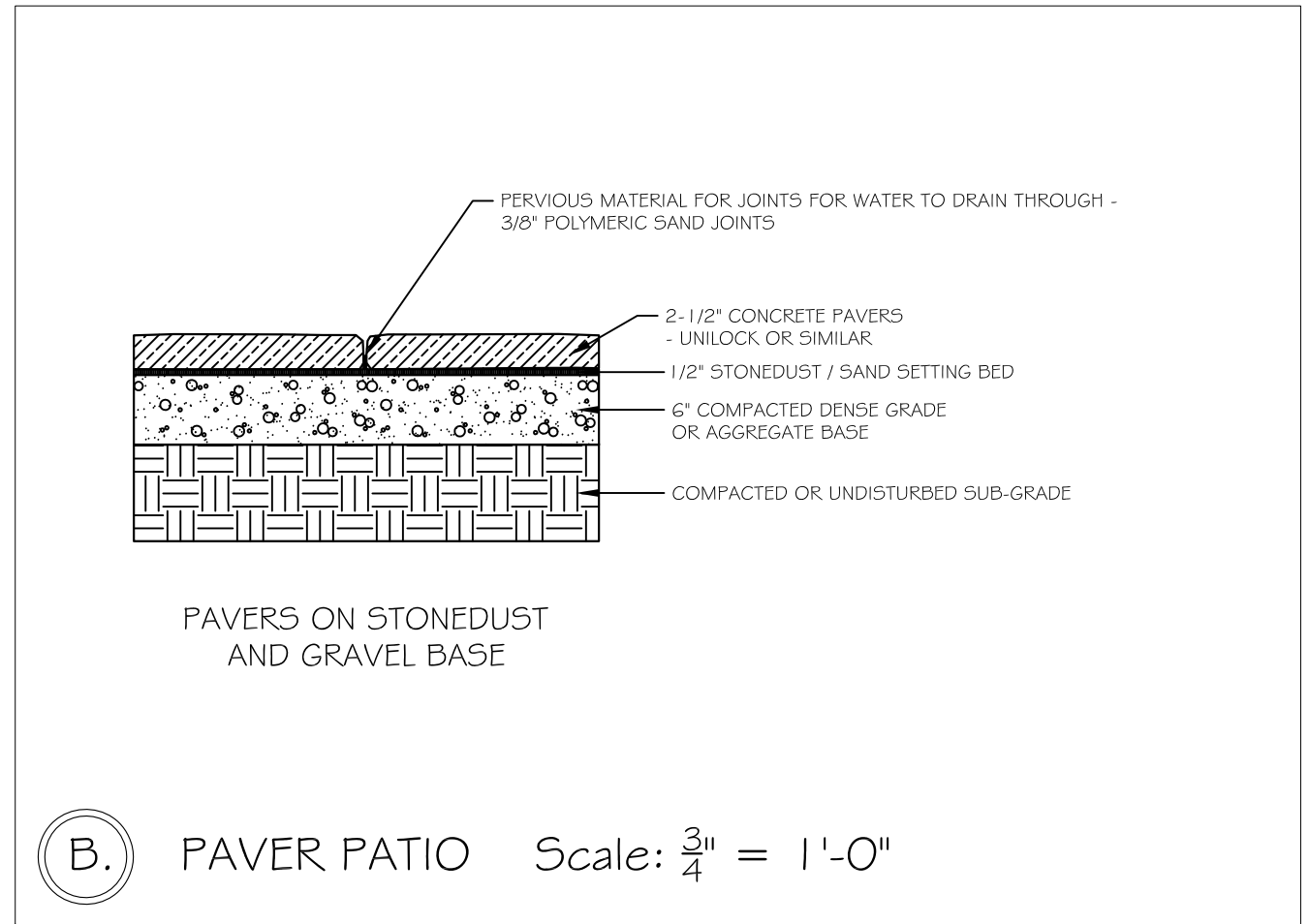
A handwritten signature in black ink, appearing to read "Greg Mercurio", written in a cursive style.

Greg Mercurio RLA  
Carriage House Gardens and Associates Inc.

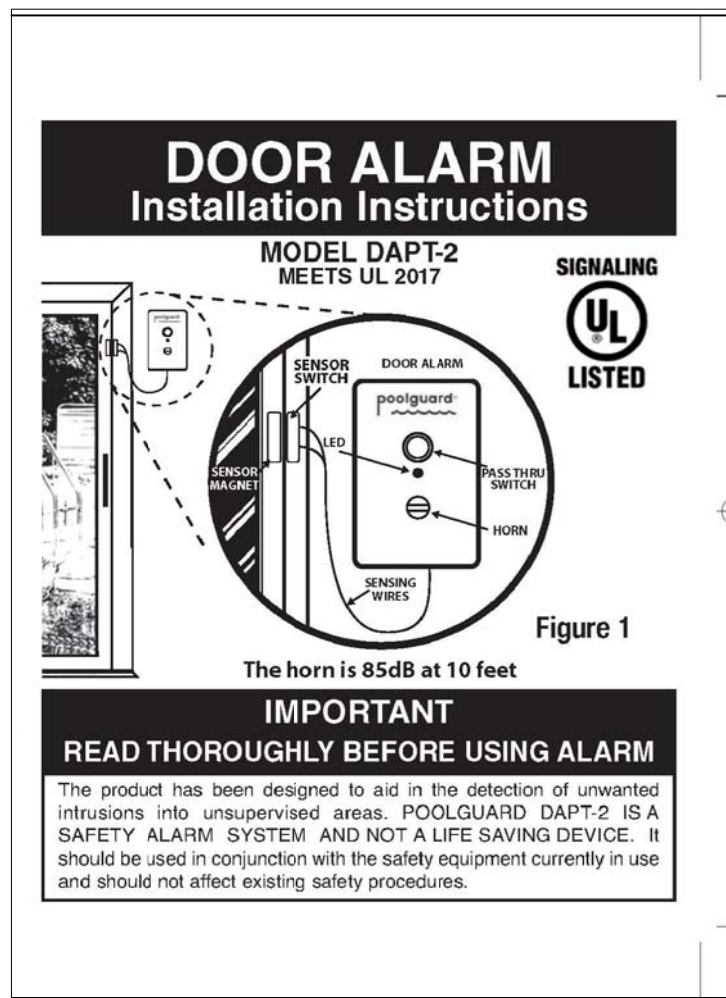




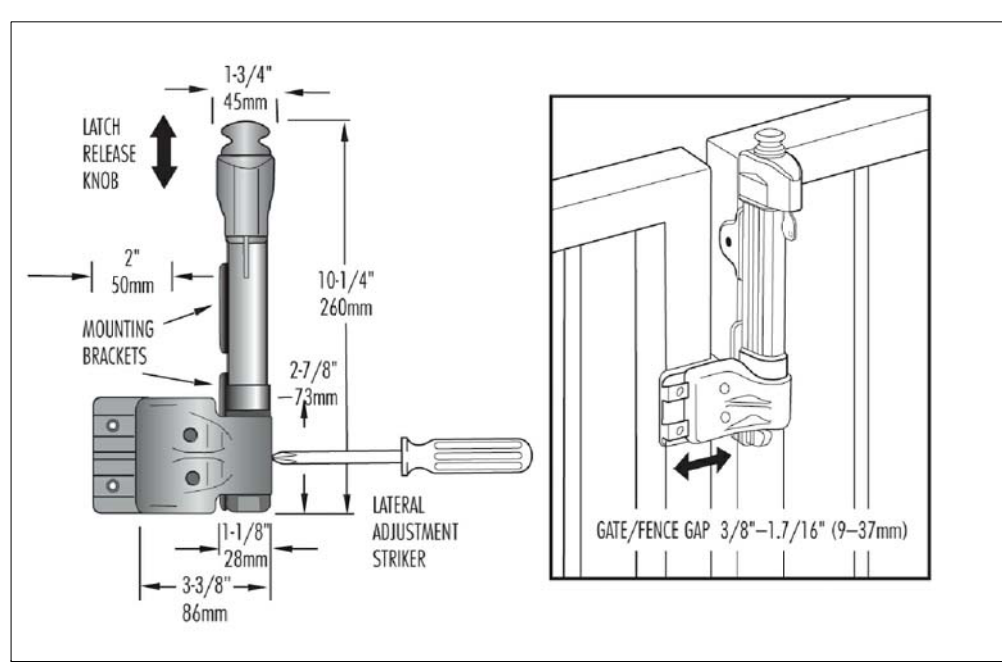
A. POOL ENCLOSURE SAMPLE PHOTO:  
POOL CODE JERITH ALUMINUM WINDSOR FENCE  
AS PER NYS CODE R326.4.2.3 PERMANENT BARRIERS Section: Closely spaced horiz. members.



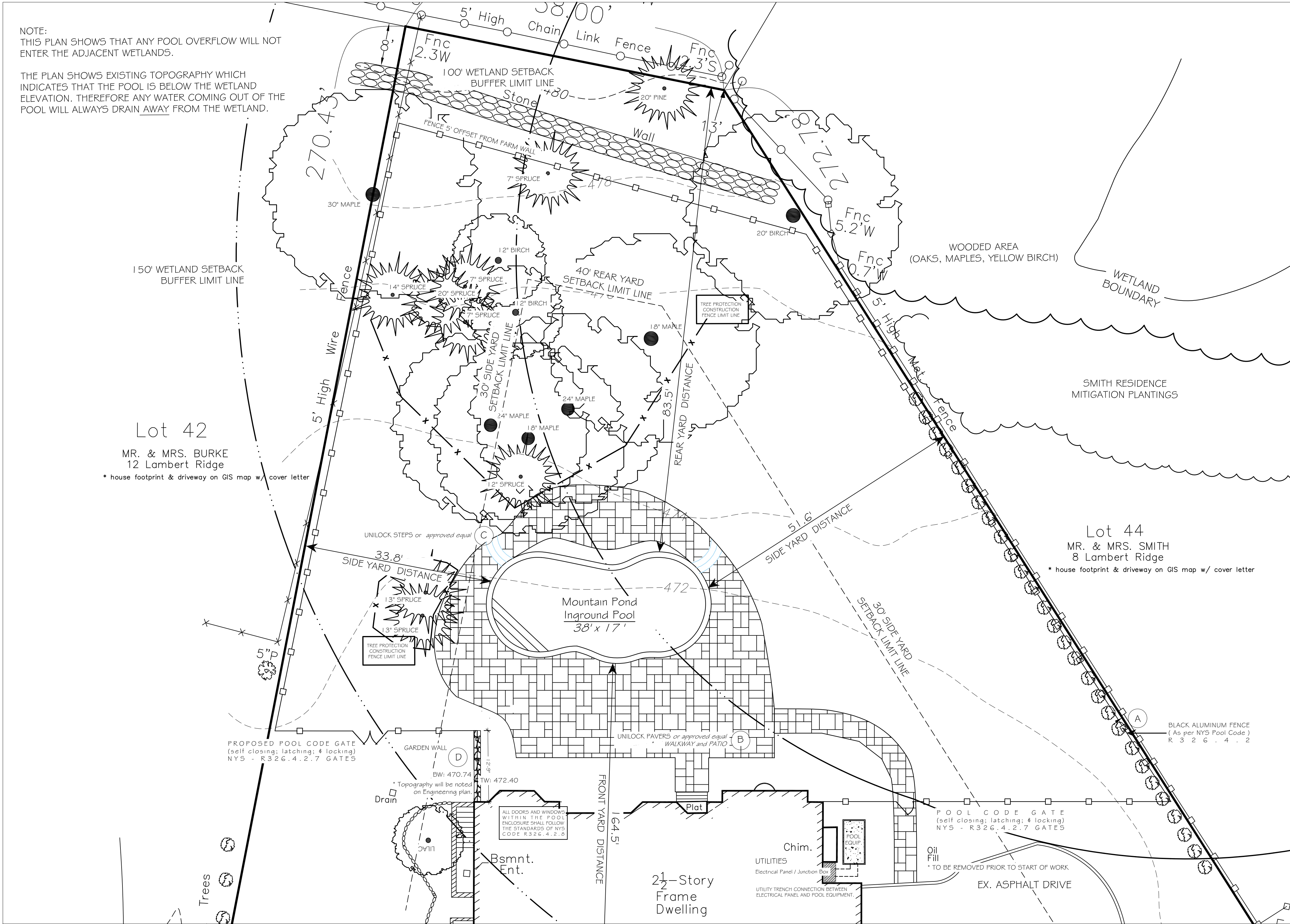
- COMPLIANCE NOTES:
- ALL CONSTRUCTION SHALL FOLLOW THE CURRENT RESIDENTIAL CODE OF NEW YORK STATE THROUGHOUT THE DURATION OF THE PROJECT.
  - POOL IS DESIGNED IN ACCORDANCE WITH ANSI / APSP / IIC5.
  - R326.4.1 TEMPORARY FENCING SHALL BE INSTALLED UPON CONSTRUCTION UNTIL PREEMINENT FENCING IS PROVIDED.
  - R326.4.2PERMANENT BARRIER SHALL BE 48" FROM THE GRADE AND THE BOTTOM HORIZONTAL NO GREATER THAN 2" FROM THE GRADE. ON THE SIDE OF THE BARRIER AWAY FROM THE POOL. TO BE INSTALLED WITHIN 90 DAYS OF THE COMMENCEMENT OF WORK..
  - SWIMMING POOL SHALL BE ALARMED AS PER NYS CODE - R326.7 AND ASTM F2208
  - POOL SHALL BE IN COMPLIANCE WITH R403.1.0 (2020 ECC) for energy consumption.
  - DOOR AND WINDOW ALARM TO COMPLY WITH: NYS CODE R326.4.2.8
  - R326.4.7 GATES SHALL COMPLY WITH SECTIONS R326.4.2.7.1 - 3 GATES TO OPEN OUT. GATES TO BE SELF CLOSING AND SELF LATCHING. ALL GATES TO BE SECURELY LOCKED WITH A KEY. COMBINATION OR OTHER CHILD-PROOF LOCK.



MAGNA LATCH "Vertical Pull" Model - GATE SAFETY LATCH SYSTEM



ZONING DATA:		
ZONE: R-1A		
TAX MAP: 42.3 - 1 - 109		
FIRE DISTRICT: LEWISBORO		
SCHOOL DISTRICT: LEWISBORO		
GROSS LOT AREA = (0.985 Ac)		
	PERMITTED	EXISTING
MAX. F.A.R.	N/A	N/A
MIN. LOT AREA	1 ACRE	0.985 ACRE
DEPTH	N.A	N/A
WIDTH	N/A	N/A
MIN. YARD SETBACKS	FRONT	street
	REAR	40 FT.
	SIDE 1	40 FT.
	SIDE 2	30 FT.



PLAN - POOL SITE PLAN  
SCALE : 1" = 10'-0"

ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS PLAN OR ANY PORTION, THEREOF IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.

ALTERATION OF THIS DRAWING, EXCEPT IF DONE BY OR UNDER THE DIRECTION OF THE LICENSED L.A. THAT PREPARED THEM, IS A VIOLATION OF NYS EDUCATION LAW.

BASE SURVEY PROVIDED BY OWNER. Dated 3/26/99. Conducted by Donald J. Donnelly LSPC Yorktown Heights, NY Lic No. 49922

TOPOGRAPHIC INFORMATION RETRIEVED FROM THE WESTCHESTER COUNTY GIS AND OVERLAIN ON SURVEY.

PROPERTY NOTES:

- THERE IS **NO WELL** ON THIS PROPERTY.
- THERE IS **NO SEPTIC** ON THIS PROPERTY
- NO TREES ARE TO BE REMOVED DURING CONSTRUCTION.

REVISION	DATE
RELOCATE POOL EQUIP and ASSOC. TRENCHING and LOD	5/26/21
ADJUSTED LAYOUT and INCORPORATED the UPDATED SURVEY	11/16/21
FINAL NOTES	11/29/21

NITTA RESIDENCE  
10 LAMBERT RIDGE ROAD  
CROSS RIVER, NEW YORK

PROPOSED  
POOL SITE PLAN

CARRIAGE HOUSE GARDENS  
& ASSOCIATES INC.  
4 BROADWAY - SUITE 10  
VALHALLA, NEW YORK 10595  
PHONE: (845) 216 - 8587  
CELL: (203) 922-1004  
gregg@carnagehousegardens.net  
www.carnagehousegardens.net

DATE:	SCALE:
May 5th, 2021	AS NOTED
DRAWN BY:	DRAWING #
GM	L - 1





L-1



MITIGATION PLANTING  
AREA QUANTIFICATION:

A - 3952 SF (PERIMETER )  
B - 574 SF (SM. ISLAND)  
C - 1381 SF (LG. ISLAND)  
D - 200 SF (SM. POCKET)  
E - 510 SF (REAR FOUNDATION - Left)  
F - 269 SF (REAR FOUNDATION - Right)  
G - 117 SF (SIDE OF WALK)  
H - 61 SF (POOL BED)

TOTAL = 7,064 SQUARE FEET  
PROJECT DISTURBANCE AREA = 6,500 +/-

PLANT LIST - NEW YORK NATIVE PLANT MATERIALS

Trees			
Scientific Name	Common Name	Size	Qty.
<i>Amelanchier canadensis</i>	Serviceberry	8-10' HT.	1
<i>Chamaecyparis thyroides</i>	Atlantic White Cedar	5 GAL.	3
<i>Ilex opaca</i>	American Holly	4' HT.	9
<i>Nyssa sylvatica</i>	Black Gum	15 GAL.	1
Shrubs			
Scientific Name	Common Name	Size	Qty.
<i>Aeculus parviflora</i>	Bottlebrush Buckeye	3 GAL.	1
<i>Azalea viscosum</i>	Swamp White Azalea	3 GAL.	1
<i>Chionanthus virginica</i>	American Fringe Tree	10 GAL.	1
<i>Clethra alnifolia</i>	Summersweet	3 GAL.	9
<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea	3 GAL.	1
<i>Ilex glabra</i>	Inkberry	3 GAL.	24
<i>Ilex glabra</i> 'Gem Box'	Gem Box Inkberry	3 GAL.	12
<i>Ilex glabra</i> 'Gem Box'	Gem Box Inkberry	10 GAL.	4
<i>Itea virginica</i>	Virginia Sweetspire	3 GAL.	5
<i>Rhus aromatica</i>	Gro*Low Sumac	3 GAL.	13
<i>Viburnum dentatum</i>	Arrowwood Viburnum	3 GAL.	4
Pollinator Perennials			
Scientific Name	Common Name	Size	Qty.
<i>Allium cernuum</i>	Nodding Onion	eco*plug	50
<i>Aster 'Snow Flurry'</i>	Snow Flurry Aster	eco*plug	150
<i>Dalea candida</i>	White Prairie Clover	eco*plug	50
<i>Echinacea purpurea</i>	Purple Cone Flower	eco*plug	64
<i>Eupatorium fistulatum</i>	Joe-Pye Weed	eco*plug	32
<i>Rudbeckia hirta</i>	Black-eyed Susan	eco*plug	100
<i>Schizachyrium scoparium</i>	Little Bluestem	eco*plug	50
<i>Solidago spp.</i>	Solar Cascade Goldenrod	eco*plug	100
SEEDING NOTES:			
ERNX-153 showy NE Native Wildflower and Grass Mix.			
Apply @ 20 lbs. per acre or 0.5 pounds per 1,000 SF.			
PRARIE NURSERY No*Mow Lawn			
Apply @ 64 lbs. per acre or 1.5 pounds per 1,000 SF.			

PLANTING SPECIFICATIONS:

GENERAL: All plants, trees, and shrubs shall meet the specifications for "plant material" as per the American Standard for Nursery Stock. The landscape architect reserves the right to inspect all plants prior to shipping and installation. There are to be no substitutions of the plants without the consent of the landscape architect.

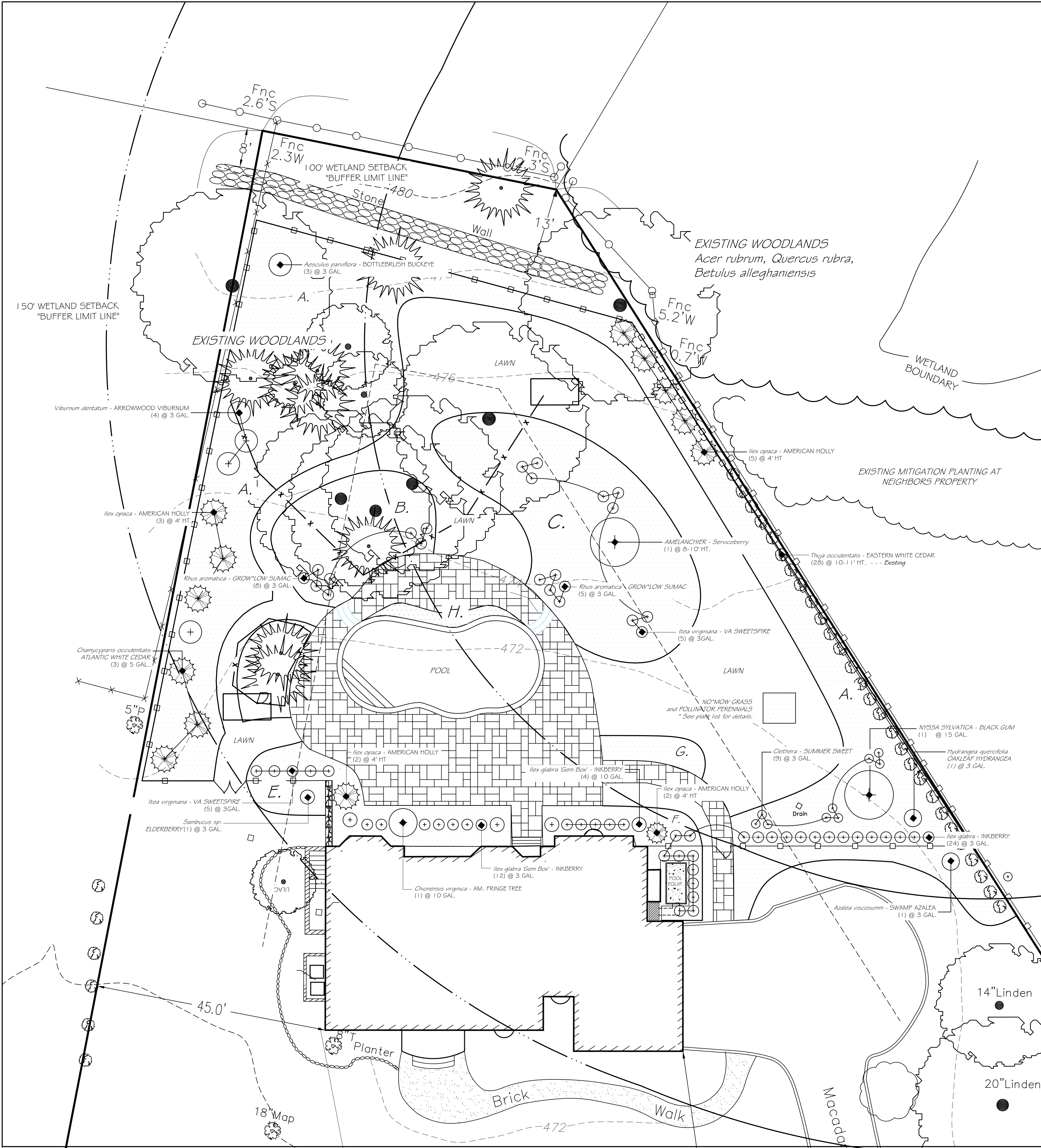
PLANTING: All plants shall be planted in pits two times the diameter of the root ball or container. Plant height should be placed at or slightly above previous grade. Pull back burlap from top of ball and cut wire on tree basket. Ensure that the burlap is not exposed above grade because of water loss. Staking and guying shall be used only when necessary. When the method is used, care should be taken to protect the tree bark and wires should be removed as soon as possible.

MULCHING: All planting beds (EXCEPT GROUNDCOVER) shall be mulched with three inches of shredded bark to conserve water and keep roots covered during initial growth stage. Do not place mulch heavily around crown of plants.

WINTER CARE: All trees and shrubs shall be sprayed with an anti-desiccant the first November after planting.

WATERING: All plants shall be watered by the contractor during the initial growth stage. Trees shall be heavily watered several times during the first month after planting and then regularly for the next two summers.

PLANT GUARANTEE: Contractor shall guarantee all newly installed plants for one-year provided that they are given proper watering/care and contractor is notified of unhealthy stressed plants immediately.



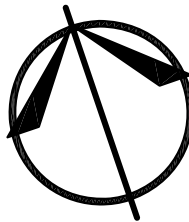
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ALTERATION OF THIS DRAWING, EXCEPT IF DONE BY OR UNDER THE DIRECTION OF THE LICENSED L.A. THAT PREPARED THEM, IS A VIOLATION OF NYS EDUCATION LAW.

BASE SURVEY PROVIDED BY OWNER, Dated 3/26/99.  
Conducted by Donald J. Donnelly LSPC Yorktown Heights, NY  
Lic No. 49922

TOPOGRAPHIC INFORMATION RETRIEVED FROM THE WESTCHESTER COUNTY GIS AND OVERLAYED ON SURVEY.

PROPERTY NOTES:

- THERE IS NO WELL ON THIS PROPERTY.
- THERE IS NO SEPTIC ON THIS PROPERTY



REVISION DATE

NITTA RESIDENCE  
10 LAMBERT RIDGE ROAD  
CROSS RIVER, NEW YORK

MITIGATION PLAN

CARRIAGE HOUSE GARDENS  
& ASSOCIATES INC.

4 BROADWAY - SUITE 10  
VALHALLA, NEW YORK 10595

PHONE: (845) 216 - 8587  
CELL: (203) 922-1004

greg@carriagehousegardens.net  
www.carriagehousegardens.net



DATE:

NOV. 29, 2021

SCALE:

1" = 10'-0"

DRAWN BY:

GM

DRAWING #

L - 3



The Office of the Westchester County Clerk: This page is part of the instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.



\*503403485DED001W\*

## Westchester County Recording & Endorsement Page

### Submitter Information

Name: River City Abstract, LLC Phone: 845-463-4797  
Address 1: 2645 South Road, Suite 4 Fax: 845-463-4765  
Address 2: Email: Linda@rivercityabstract.com  
City/State/Zip: Poughkeepsie NY 12601 Reference for Submitter: ST-46088

### Document Details

Control Number: **503403485** Document Type: **Deed (DED)**  
Package ID: 2010120600215001001 Document Page Count: **3** Total Page Count: **4**

### Parties

☐ Additional Parties on Continuation page

#### 1st PARTY

1: ROMAN LUCY C - Individual  
2: DERUITER TJERK - Individual

#### 2nd PARTY

1: NITTA SATYANARAYANA V - Individual  
2: NITTA RUBINA - Individual

### Property

☐ Additional Properties on Continuation page

Street Address: 10 LAMBERT RIDGE Tax Designation: 17-10533-443  
City/Town: LEWISBORO Village:

### Cross- References

☐ Additional Cross-Refs on Continuation page

1: 2: 3: 4:

### Supporting Documents

1: RP-5217 2: TP-584

### Recording Fees

Statutory Recording Fee: \$40.00  
Page Fee: \$20.00  
Cross-Reference Fee: \$0.00  
Mortgage Affidavit Filing Fee: \$0.00  
RP-5217 Filing Fee: \$125.00  
TP-584 Filing Fee: \$5.00  
Total Recording Fees Paid: **\$190.00**

### Transfer Taxes

Consideration: \$950,000.00  
Transfer Tax: \$3,800.00  
Mansion Tax: \$0.00  
Transfer Tax Number: 23630

### Mortgage Taxes

Document Date:  
Mortgage Amount:  
  
Basic: \$0.00  
Westchester: \$0.00  
Additional: \$0.00  
MTA: \$0.00  
Special: \$0.00  
Yonkers: \$0.00  
Total Mortgage Tax: **\$0.00**

Dwelling Type: Exempt: ☐  
Serial #:

RECORDED IN THE OFFICE OF THE WESTCHESTER COUNTY CLERK



Recorded: 12/22/2010 at 04:27 PM  
Control Number: **503403485**  
Witness my hand and official seal

Timothy C. Idoni  
Westchester County Clerk

### Record and Return To

☐ Pick-up at County Clerk's office

Vincent J. Catalano, Jr., Esq.  
4 Liberty Stret

Poughkeepsie, NY 12601



CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

THIS INDENTURE, made the 7 day of December, in the year 2010

BETWEEN

**TJERK DeRUITER and LUCY CAROLINA ROMAN, residing at: 10 Lambert Ridge, Cross River, New York 10518**

party of the first part, and

**SATYANARAYANA NITTA and RUBINA NITTA, husband and wife, residing at: 118 Roosevelt Drive, Poughquag, New York 12570**

party of the second part,

**WITNESSETH**, that the party of the first part, in consideration of Ten Dollars and other valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

**ALL** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Town of Lewisboro, County of Westchester and State of New York as more particularly described on Schedule A attached hereto.

**TOGETHER** with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; **TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises; **TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

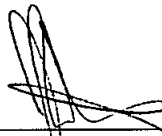

**AND** the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

**AND** the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

**IN WITNESS WHEREOF**, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

  
\_\_\_\_\_  
**TJERK DeRUITER**  
  
\_\_\_\_\_  
**LUCY CAROLINA ROMAN**



ACKNOWLEDGEMENT TAKEN IN NEW YORK STATE

State of New York, County of Westchester, ss:  
  
On the 7 day of December in the year 2010, before me, the undersigned, personally appeared

Tjerk DeRuiter and Lucy Carolina Roman  
personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

  
(signature and office of individual taking acknowledgment)

ROSARIA BARONE  
Notary Public of New York State  
Residing in Dutchess County  
# 01BA6093416  
Commission Expires June 2, 2011

ACKNOWLEDGEMENT BY SUBSCRIBING WITNESS  
TAKEN IN NEW YORK STATE

State of New York, County of , ss:  
  
On the day of in the year ,  
before me, the undersigned, a Notary Public in and for said State,  
personally appeared

the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he/she/they reside(s) in

(if the place of residence is in a city, include the street and street number if any, thereof); that he/she/they know(s)

to be the individual described in and who executed the foregoing instrument; that said subscribing witness was present and saw said execute the same; and that said witness at the same time subscribed his/her/their name(s) as a witness thereto

*Bargain and Sale Deed*  
WITH COVENANT AGAINST GRANTORS ACTS

Title No. RCA-ST-46088 River City Abstract, LLC

DeRuiter and Roman  
to  
Nitta

ACKNOWLEDGEMENT TAKEN IN NEW YORK STATE

State of New York, County of , ss:  
  
On the day of in the year ,  
before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(signature and office of individual taking acknowledgment)

ACKNOWLEDGEMENT TAKEN OUTSIDE NEW YORK  
STATE

\*State of , County of , ss:  
  
On the day of in the year ,  
before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual make such appearance before the undersigned in the

(add the city or political subdivision and the state or country or other place the acknowledgment was taken).

Notary  
My commission expires:

SECTION 17  
BLOCK 10533  
LOT 443  
COUNTY OR TOWN Westchester/Lewisboro

RETURN BY MAIL TO:

Vincent J. Catalano, Jr., Esq.  
4 Liberty Street  
Poughkeepsie, New York 12601



SCHEDULE A

**ALL** that certain plot, piece, or parcel of land situate, lying and being in the Town of Lewisboro, County of Westchester and State of New York, known and designated as Lot 43 on a certain map entitled "Michelle Estates at Cross River Subdivision Survey prepared for Bayswater Realty and Capital Corp. situated in the Town of Lewisboro, Westchester County, New York" dated September 1983, last revised November 27, 1989, made by Henricis', and filed in the Westchester County Clerk's Office, Division of Land Records on January 3, 1990 as Map No. 24046, said lot being more particularly bounded and described as follows:

**SAID** premises being more particularly bounded and described as follows:

**BEGINNING** at a point on the southerly side of Lambert Ridge, said point being where the boundary line between Lot 42 and Lot 43 as shown on said map intersects the southerly line of said Lambert Ridge;

**RUNNING THENCE** along the last mentioned boundary line, South 02 degrees 09' 20" West, 270.43 feet to lands now or formerly of Four Winds Inc.;

**RUNNING THENCE** along lands now or formerly of Four Winds Inc., North 87 degrees 28' 00" West, 58.00 feet to the boundary line between Lot 44 and Lot 43 as shown on said map;

**RUNNING THENCE** along the last mentioned boundary line, North 41 degrees 10' 40" West, 272.78 feet to the southerly side of Lambert Ridge;

**RUNNING THENCE** along the southerly side of Lambert Ridge on a curve to the left having a radius of 360.00 feet a distance of 261.13 feet to the point or place of **BEGINNING**.

For conveyancing only,  
to be conveyed

Together with all right, title if intended and interest of, in and to any streets and road abutting the above described premises, to the center line thereof.





**STEPHEN W. COLEMAN**  
ENVIRONMENTAL CONSULTING.

Environmental Planning & Site Analysis  
Wetland Mitigation & Restoration Plans  
Wetland Delineation & Assessment  
Natural Resource Management  
Pond & Lake Management  
Wildlife & Plant Surveys  
Breeding Bird Surveys  
Landscape Design

September 29, 2021

Ms. Rubina Nitta  
10 Lambert Ridge Road  
Cross River, New York 10518

Via email: [Rubinanitta@gmail.com](mailto:Rubinanitta@gmail.com)

**Re: 8 Lambert Ridge Road, Cross River, NY – Wetlands Investigation and Delineation**

Dear Ms. Nitta:

As per the request of Greg Mercurio, I have completed a wetland investigation and delineation of the above referenced parcel that is adjacent to your property. As noted, the wetland is located on the adjacent parcel (8 Lambert Ridge) and the 150 ft. wetland buffer extends onto your property.

This assessment of the existing wetlands and watercourses present on the subject parcel was completed on 07-22-21. Greg Mercurio was present for the wetland investigation. The respective wetland area was flagged in accordance with Chapter 217 "Freshwater Wetlands" of the Town of Lewisboro. As noted in the Town Code, vegetation, soils, and hydrological parameters were used to determine the outer wetland boundary limits. The wetland/upland boundary was field determined and pink surveyors flagging labeled "Wetland Boundary" were hung along the respective boundary.

The property consists of a secondary mixed deciduous forest that is dominated by red oak, black birch, American elm, and red maple trees. The wetland area consists of a depressional sloping wetland that meanders throughout the rear of the property. A prominent stone wall runs parallel and near the shared western side yard.

The outermost wetland boundary closest to the subject property line was flagged with wetland flag numbers A-01-A-07. Based upon review of the prior wetland survey, the newly established wetland boundary appears to be consistent with the historical surveyed wetland boundary. No significant field changes are readily observable that would have altered the wetland boundary to be substantially different than the prior established wetland boundary.

Dominant tree species along the boundary of the wetland consisted of red maple and American elm with several upland species including red oak, shagbark hickory and black birch. The shrub layer within the outer edges of the wetland was dominated by spicebush, maple-leaved viburnum, and invasive shrub species – multi-flora rose and



Japanese barberry. The herbaceous layer along the edge of the wetland included common wetland indicator plants including jewelweed, skunk cabbage, common rush, tussock sedge and cinnamon ferns.

The hydric soils present within the wetland are classified as ridgebury soils with a prominent sandy layer present at approximately 14-16 inches within the soil profile. Soil profile samples exhibited a uniform mineral soil with evidence of reduction and mottling within the subsurface layer.

Several primary and secondary hydrological indicators were also present including soil saturation within the test hole, buttressed tree roots, and positive drainage patterns.

A prominent stone wall is present that runs parallel to the western side yard that separates the two properties. The wetland is located on the western side of the stonewall and provides protection of the wetland from typical residential activities. The buffer that extends to the side yard consists of native vegetation and has been supplemented with additional native and ornamental shrubs, likely part of a prior wetland buffer mitigation plan,

Based upon my review of the proposed application, a proposed pool located within the rear yard will encroach within the 150 ft. wetland buffer. The applicant has proposed an extensive buffer mitigation planting plan which will enhance the existing maintained natural buffer on the parcel. The proposed pool will not result in a significant adverse impact to the functioning of the wetland buffer area present on the parcel. The additional mitigation plantings will enhance the remaining buffer area and provide adequate protection of the functions provided by the adjacent wetland.

This completes my initial wetlands investigation to determine the respective outer wetlands boundary of the parcel. Please let me know if you have questions or require additional information.

Sincerely,

*Stephen Coleman*

Stephen W. Coleman

cc: G.Mercurio



# Stormwater Pollution Prevention Plan

## Nitta Pool Project

10 Lambert Ridge Road  
Town of Lewisboro

October 20, 2021



208 Creamery Road  
Hopewell Junction, NY 12533

[Brian@HildenEng.com](mailto:Brian@HildenEng.com)





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A	Pre-Development HydroCAD Analysis
B	Post-Development HydroCAD Analysis
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# 1 Executive Summary

This Stormwater Pollution Prevention Plan (SWPPP) and accompanying project plans have been prepared for the construction activities associated with 10 Lambert Ridge Road located in the Town of Lewisboro, New York. The stormwater management, pollution prevention, and erosion and sediment control measures identified and detailed in this SWPPP and on the accompanying project plans have been designed in accordance with the requirements of the Town of Lewisboro and the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Phase II technical standards.

The proposed project:

1. Maintains the existing drainage patterns, as much as possible.
2. Controls increases in the rate of stormwater runoff resulting from the proposed development without adversely affecting adjacent or downstream properties or receiving watercourses or bodies.
3. Reducing potential stormwater quality impacts and soil erosion resulting from stormwater runoff generated both during and after construction.

The pre- and post-development stormwater runoff conditions have been reviewed and evaluated. The proposed stormwater management facilities have been designed to provide 25-year storm quantity controls. Stormwater runoff will be detained, treated, and released at a rate equal to or less than that which existed prior to development of the project site.

## 2 Project Description

The Nitta family owns 10 Lambert Ridge Road. The subject lot is 1.99 acres and located on the south side of Lambert Ridge Road. The property is located in the R-1A Zoning District.

### 2.1 Pre-Development Conditions

The site is currently developed as a typical single-family residential lot, with a driveway, house, septic system, and lawn areas. The lot primarily drains towards the street. Based on GIS mapping, it appears the runoff wraps around the lot, leading to an off-site wetland. The proposed project location is directly behind the existing house, in a lawn area,

### 2.2 Post-Development Conditions

The proposal includes the construction of an inground pool, patio, landscaping and drainage system.

Runoff from the new impervious area will be collected in a system of French drain and NDS drain inlets. The water will be piped to two (2) underground infiltration systems. The system will be sized to mitigate the 25-year storm, and overflow larger events to the surface, which will enter the existing yard drainage system, or overland flow to the street.





### 3 Construction Sequencing

The total disturbance of the proposed project is 0.2 acres. The proposed project will be completed in a single phase. The construction sequencing is outlined on the accompanying plans and is provided below. The construction sequencing is as follows:

1. The Contractor shall flag the limits of disturbance prior to the commencement of construction. Bright orange construction fencing shall be used to demarcate the limits of disturbance to ensure over clearing does not occur.
2. All temporary erosion and sediment control measures (e.g., stabilized construction entrances, silt fencing, storm drain inlet protection, etc.) shall be installed as shown on the project plans. Temporary erosion and sediment control measures shall be constructed, stabilized, and functional before site disturbance begins within their tributary areas.
3. Stake out the locations of the limits of disturbance, proposed stormwater management facilities, and improvements (e.g., roadways, etc.).
4. Remove trees, stumps, and vegetation within the disturbance limits in accordance with the project plans. All stumps shall be stockpiled for either grinding in-place or removal from site. The stump pile shall be protected in accordance with the stockpile detail on the project plans as appropriate. Stump burial is prohibited.
5. Rough grade the site. Place surplus material in the temporary soil stockpile locations shown on the project plans.
6. Construct all site utilities and utility service connections as shown on the project plans.
7. Finish grading and stabilize all disturbed areas. All erosion and sediment control measures must be left in place to prevent sediment from entering the infiltration practices. The Contractor shall clean all catch basins, manholes, and drainage lines of any accumulated silt and sediment prior to finalizing the infiltrations area.
8. Remove all temporary erosion and sediment control measures. Immediately stabilize the areas disturbed during their removal. Establish permanent vegetative cover and install all landscaping.

### 4 Erosion and Sediment Control Plan

This SWPPP and accompanying project plans identify both temporary and permanent erosion and sediment control measures, which have been designed in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control*, latest revision. Temporary erosion and sediment control measures will be implemented during construction to minimize soil erosion and control sediment transport off-site. Permanent erosion and sediment control measures will be implemented after construction to control the quality and quantity of stormwater runoff from the developed site.





## 4.1 Erosion and Sediment Control Measures

Temporary erosion and sediment control measures to be utilized during construction generally include the following:

1. **Stabilized Construction Entrance** - Prior to construction, stabilized construction entrances shall be installed to reduce the tracking of sediment onto public roadways. Construction traffic must enter and exit the site at the stabilized construction entrance. The entrance shall be maintained in good condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, the placement of additional aggregate atop the filter fabric shall be done to assure the minimum thickness is maintained. All sediments and soils spilled, dropped, or washed onto the public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.
2. **Dust Control** - Water trucks shall be used, as needed, during construction to reduce dust generated on the site. Dust control must be provided by the general contractor to a degree that is acceptable to the owner/operator, and in compliance with the applicable local and state dust control requirements.
3. **Temporary Soil Stockpile** - Materials, such as topsoil, shall be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses, and shall be properly protected from erosion by a surrounding silt fence barrier or hay bales when located on paved areas.
4. **Silt Fencing** - Prior to the initiation of and during construction activities, silt fencing shall be established along the perimeter of all areas to be disturbed as a result of the construction which lie up gradient of water courses or adjacent properties. These barriers may extend into non-impact areas to ensure adequate protection of adjacent lands. Clearing and grubbing shall be performed only as necessary for the installation of the sediment control barrier. To ensure effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events shall be performed by site personnel. Maintenance of the fence shall be performed as needed.
5. **Temporary Seeding** - Within seven days after construction activity ceases on any particular area of the site, all disturbed areas where there shall not be construction for longer than 14 days shall be temporarily seeded and mulched to minimize erosion and sediment loss.
6. **Dewatering** - Dewatering, if required, shall not be discharged directly into wetlands, water courses, water bodies, and storm sewer systems. Proper methods and devices shall be utilized to the extent permitted by law, such as pumping water into temporary sediment basins, providing surge protection at the inlet and outlet of pumps, floating the intake of the pump, or other methods to minimize and retain the suspended solids.

Permanent erosion and sediment control measures to be utilized after construction generally include the following:

1. **Establishment of Permanent Vegetation** - Disturbed areas that are not covered by impervious surfaces shall be seeded in accordance with the accompanying plans. The type of





seed, mulch, and maintenance measures shall be followed. All areas at final grade shall be seeded and mulched within seven (7) days after completion of the major construction activity. All seeded areas shall be protected with mulch and/or hay. Final site stabilization is achieved when all soil-disturbing activities at the site has been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

2. **Final Seeding and Planting** - Final seeding and planting shall be installed as shown on the accompanying plans. Final seeding and planting will help minimize erosion and sediment loss.
3. **Rock Outlet Protection** - Rock outlet protection shall be installed at the locations as shown on the accompanying plans. The installation of rock outlet protection will reduce the depth, velocity, and energy of water, such that the flow will not erode the receiving water course or water body.

Specific erosion and sediment control measures, inspection frequency, and remediation procedures are provided in the subsequent sections and on the accompanying project plans.

## 4.2 Pollution Prevention Controls

Good housekeeping practices are designed to maintain a clean and orderly work environment. Good housekeeping measures shall be maintained throughout the construction process by those parties involved with the direct care and development of the site. The following measures should be implemented to control the possible exposure of harmful substances and materials to stormwater runoff:

1. Material resulting from the clearing and grubbing operation shall be stockpiled away from storm drainage, water bodies and/or watercourses and surrounded with adequate erosion and sediment control measures. Soil stockpile locations shall be exposed no longer than 14 days before seeding.
2. Equipment maintenance areas shall be protected from stormwater flows and shall be supplied with appropriate waste receptacles for spent chemicals, solvents, oils, greases, gasoline, and any pollutants that might contaminate the surrounding habitat and/or water supply. Equipment wash-down zones shall be located within areas draining to sediment control devices.
3. The use of detergents for large-scale (i.e., vehicles, buildings, pavement surfaces, etc.) washing is prohibited.
4. Material storage locations and facilities (i.e., covered storage areas, storage sheds, etc.) shall be located onsite and shall be stored according to the manufacturer's standards in a dedicated staging area. Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Runoff containing such materials must be collected, removed from the site, treated and disposed at an approved solid waste or chemical disposal facility.





5. Hazardous spills shall be immediately contained to prevent pollutants from entering the surrounding habitat and/or water supply. Spill Kits shall be provided onsite and shall be displayed in a prominent location for ease of access and use. Spills greater than five (5) gallons shall be reported to the NYSDEC Response Unit at 1-800-457-7362. In addition, a record of the incident(s) and/or notifications shall be documented and attached to the SWPPP.
6. Portable sanitary waste facilities shall be provided onsite for workers and shall be properly maintained.
7. Dumpsters and/or debris containers shall be located onsite and shall be of adequate size to manage respective materials. Regular collection and disposal of wastes shall occur as required.
8. Temporary concrete washout facilities should be located a minimum of 50 feet from storm drain inlets, open drainage facilities, and watercourses. Each facility should be located away from construction traffic or access areas to prevent disturbance or tracking. A sign should be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities. When temporary concrete washout facilities are no longer required for the work, the hardened concrete shall be removed and disposed of. Materials used to construct the temporary concrete washout facilities shall be removed and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities shall be backfilled and/or repaired, seeded, and mulched for final stabilization.
9. Non-stormwater components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site. It can be retained in the ponds until it infiltrates and evaporates.

### 4.3 Soil Restoration

The soils within in the limits of disturbance are Type C soils. In accordance with Table 5.3 of the *New York State Stormwater Management Design Manual*, the soils shall be restored as outlined in Table 1 below:

**Table 1: Soil Restoration**

Type of Soil Disturbance	Soil Restoration Requirement	Comment
No soil disturbance (preservation of natural features)	Restoration not permitted	Protect from any ongoing construction activity
Minimal soil disturbance	Restoration not permitted	Clearing and grubbing activities
Areas where topsoil is stripped only (no change in grade)	Apply 6" of topsoil	Protect from any ongoing construction activity





Type of Soil Disturbance	Soil Restoration Requirement	Comment
Areas of cut or fill	Aerate and apply 6" of topsoil	Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soils, a roller with many spikes making indentations in the soil, or prongs with function like a mini-subsoiler.
Heavy traffic areas on site (especially in a zone 5-25' around buildings but not within a 5' perimeter around foundation walls)	Apply full soil restoration (de-compaction and compost enhancement)	Deep rip the affected thickness of the exposed subsoil material, aggressively fracturing it before the protected topsoil is reapplied on site. De-compact simultaneously through the restored topsoil layer and the upper half of the affected subsoil.
Areas where runoff reduction and/or infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.	Protect from any ongoing construction activity

During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following soil restoration steps are applied:

1. Apply 3-inches of compost over subsoil.
2. Till compost into subsoil to a depth of at least 12" using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing and circulating air and compost into subsoils.
3. Rock-pick until uplifted stone/rock materials of 4-inches and larger size are cleaned off the site.
4. Apply topsoil to a depth of 6-inches.
5. Vegetate as required by the project plans.

## 5 Stormwater Management Plan

The goals of this Stormwater Management Plan are to:

1. Analyze the peak rate of runoff under pre- and post-development conditions.
2. Maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties.
3. Minimize the impact of the quality of runoff exiting the site.

Stormwater runoff from the proposed project will be collected and conveyed to the proposed stormwater management facilities. Stormwater runoff will be detained, treated, and released at a rate equal to or less than that which existed prior to development of the project site.





## 5.1 Hydrologic Analysis

The study area was made up of one subcatchment for pre-development conditions and post-development conditions. This was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed delineations were defined by the proposed development area.

HydroCAD, a Computer-Aided-Design (CAD) program, was used to analyze the hydrologic characteristics of the pre-development watershed conditions, post-development watershed conditions, and proposed stormwater management systems. HydroCAD has the capability of computing hydrographs (which represents discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors), combining hydrographs, and routing flows through pipes, streams, channels, and ponds.

### 5.1.1 Rainfall Data

Rainfall data utilized in the modeling and analysis was obtained from National Weather Service (NWS) Technical Paper 40 (TP-40), Rainfall Frequency Atlas of the U.S. Weather Bureau, published by the U.S. Department of Commerce. A Type III rainfall distribution was used to evaluate the pre- and post-development stormwater runoff conditions for the 25-year 24-hour storm events for the project location. Rainfall data specific to the portion of Westchester County under consideration is provided in [Table 2](#) below.

**Table 2: Rainfall Data**

Storm Event	24-Hour Rainfall
25-year	6.38 inches

### 5.1.2 Unified Stormwater Sizing Criteria

#### 5.1.2.1 *Water Quantity Control*

### 5.1.3 Comparison of Peak Discharge Rates

A comparison of the pre- and post-development peak discharge rates is provided in [Table 3](#) below.

**Table 3: Comparison of Pre- & Post-Development Peak Discharge Rates**

Storm Event	Pre (cfs)	Post (cfs)	Difference
25-year	0.22	0.12	-45%

Comparison of the peak discharge rates for pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the proposed development will remain the nearly the





same or not be increased. Therefore, the proposed development will not adversely impact the downstream or adjacent properties, receiving water bodies or courses, or wetlands. The results of the computer modeling used to analyze the pre- and post-development watershed conditions are presented in [Appendix A](#) and [Appendix B](#), respectively.

#### 5.1.4 Pool Drawdown Mitigation

The Town required that the stormwater mitigation system be sized to the increase in 25-year storm runoff, or a 6" seasonal pool drawdown, whichever is greater.

The surface area of the pool is 475 square feet, so a 6" drawdown yields 238 square feet, or 0.005 acre-feet.

The proposed infiltration system provided 0.005 acre-feet of storage without the benefit of percolation. Therefore, the Town requirement has been met.

## 6 Post Construction Requirements

### 6.1 Inspection and Maintenance

Post-construction inspections and maintenance shall be performed by the homeowner. Inspections and maintenance for the various site components and stormwater management facilities shall be performed in accordance with the accompanying project plans and this SWPPP.

A summary of the general site inspection and maintenance parameters is provided in [Table 4](#) below.



Table 4: General Site Post-Construction Inspection and Maintenance

Maintenance Item	Frequency	Description of Inspection Parameters	Description of Remedy Procedures
Site Structures	Annual & After Major Storms	<ul style="list-style-type: none"> <li>-Accumulated sediment in catch basin sumps</li> <li>-Accumulated debris and litter</li> <li>-Damage or fatigue of storm structures or associated components</li> <li>-Accumulation of pollutants, including oils or grease, in catch basin sumps</li> </ul>	<ul style="list-style-type: none"> <li>-Remove</li> <li>-Remove</li> <li>-Replace and/or repair, as necessary</li> <li>-Remove pollutants from catch basins. Replace and/or repair pollutant source.</li> </ul>
Pavement	Biannual/Annual	<ul style="list-style-type: none"> <li>-Accumulated sediment in paved areas</li> <li>-Accumulated debris and litter</li> </ul>	<ul style="list-style-type: none"> <li>-Remove (sweep min. 2 times/year)</li> <li>-Remove</li> </ul>
Embankments	Annual	<ul style="list-style-type: none"> <li>-Differential settlement of embankments</li> <li>-Embankment erosion</li> <li>-Animal burrows</li> <li>-Cracking, bulging, or sliding of embankment</li> </ul>	<ul style="list-style-type: none"> <li>-Stabilize and restore to original specs</li> <li>-Stabilize and restore to original specs</li> <li>-Remove</li> <li>-Stabilize and restore to original specs</li> </ul>
Grass and Landscaped areas	Annual	<ul style="list-style-type: none"> <li>-Vegetation: 80% coverage + less than 15% invasive plant species</li> <li>-Unauthorized plantings</li> <li>-Undesirable vegetative growth</li> </ul>	<ul style="list-style-type: none"> <li>-Restore original specs</li> <li>-Remove</li> <li>-Mow a min. of 3 times/year. May increase for aesthetic reasons.</li> <li>-Remove</li> </ul>
Winter Maintenance	Monthly	<ul style="list-style-type: none"> <li>-Accumulated debris and litter</li> <li>-Accumulation of snow and ice on catch basins, inlet and outlet structures, and end sections</li> <li>-Stock piled snow near inlets and outlets</li> <li>-Remaining deicing materials</li> </ul>	<ul style="list-style-type: none"> <li>-Remove</li> <li>-Remove</li> <li>-Remove</li> <li>-Remove in early spring by sweeping</li> </ul>
Swales	Monthly	<ul style="list-style-type: none"> <li>-Erosion of side slopes</li> <li>-Formation of rills or gullies</li> <li>-Excess grass growth</li> <li>-Undesirable vegetative growth</li> <li>-Accumulated debris, litter, or sediment</li> <li>-Residual deicing materials (sand)</li> </ul>	<ul style="list-style-type: none"> <li>-Stabilize and restore to original specs</li> <li>-Repair and restore to original specs</li> <li>-Mow</li> <li>-Remove</li> <li>-Remove</li> <li>-Remove &amp; replace any damaged vegetation</li> </ul>





## 7 Conclusion

This Stormwater Pollution Prevention Plan for the for 10 Lambert Ridge Road incorporates an Erosion and Sediment Control Plan and Stormwater Management Plan. The SWPPP identifies the measures to be implemented during construction to minimize soil erosion and control sediment transport off-site, and after construction to control the water quality and quantity of stormwater runoff from the developed site to minimize adverse effects to downstream conditions.

This Stormwater Pollution Prevention Plan has been developed in accordance with the requirements of the Town of Lewisboro and the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Phase II technical standards. It is our opinion that the proposed project will not adversely impact adjacent or downstream properties, or receiving surface waters or wetlands, if the erosion and sediment control measures and stormwater management facilities are properly constructed, and maintained in accordance with the requirements outlined herein.



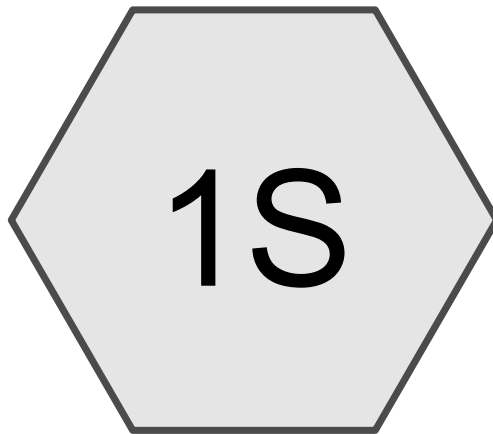


## **Appendix A**

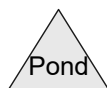
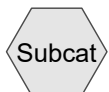
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### Pre-Development HydroCAD Analysis





# Existing Area



## Routing Diagram for Nitta Pool

Prepared by Hildenbrand Engineering, PLLC, Printed 10/25/2021  
HydroCAD® 10.10-6a s/n 11988 © 2020 HydroCAD Software Solutions LLC



## Nitta Pool

Prepared by Hildenbrand Engineering, PLLC

Printed 10/25/2021

HydroCAD® 10.10-6a s/n 11988 © 2020 HydroCAD Software Solutions LLC

Page 2

### Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.051	74	>75% Grass cover, Good, HSG C (1S)
<b>0.051</b>	<b>74</b>	<b>TOTAL AREA</b>



## Nitta Pool

Prepared by Hildenbrand Engineering, PLLC

HydroCAD® 10.10-6a s/n 11988 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 25-Yr Rainfall=6.38"

Printed 10/25/2021

Page 3

### Summary for Subcatchment 1S: Existing Area

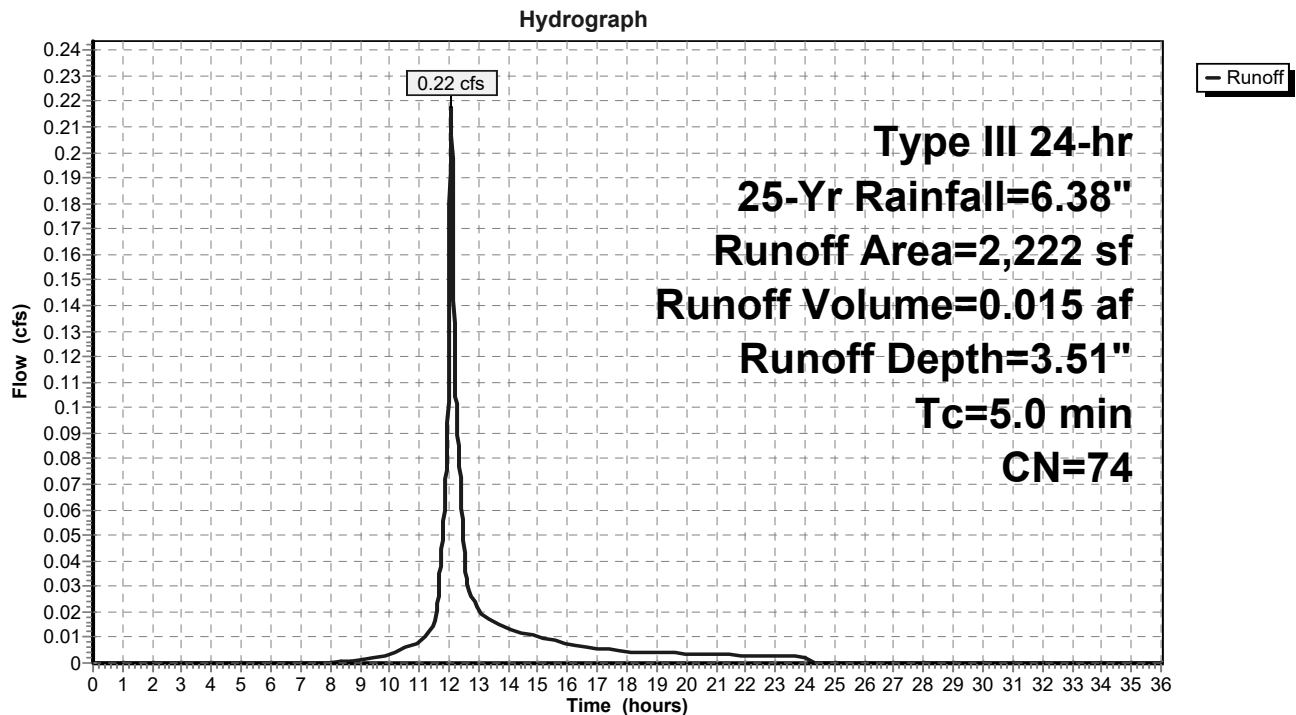
Runoff = 0.22 cfs @ 12.07 hrs, Volume= 0.015 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
Type III 24-hr 25-Yr Rainfall=6.38"

Area (sf)	CN	Description
2,222	74	>75% Grass cover, Good, HSG C
2,222		100.00% Pervious Area

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

### Subcatchment 1S: Existing Area





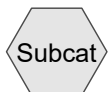
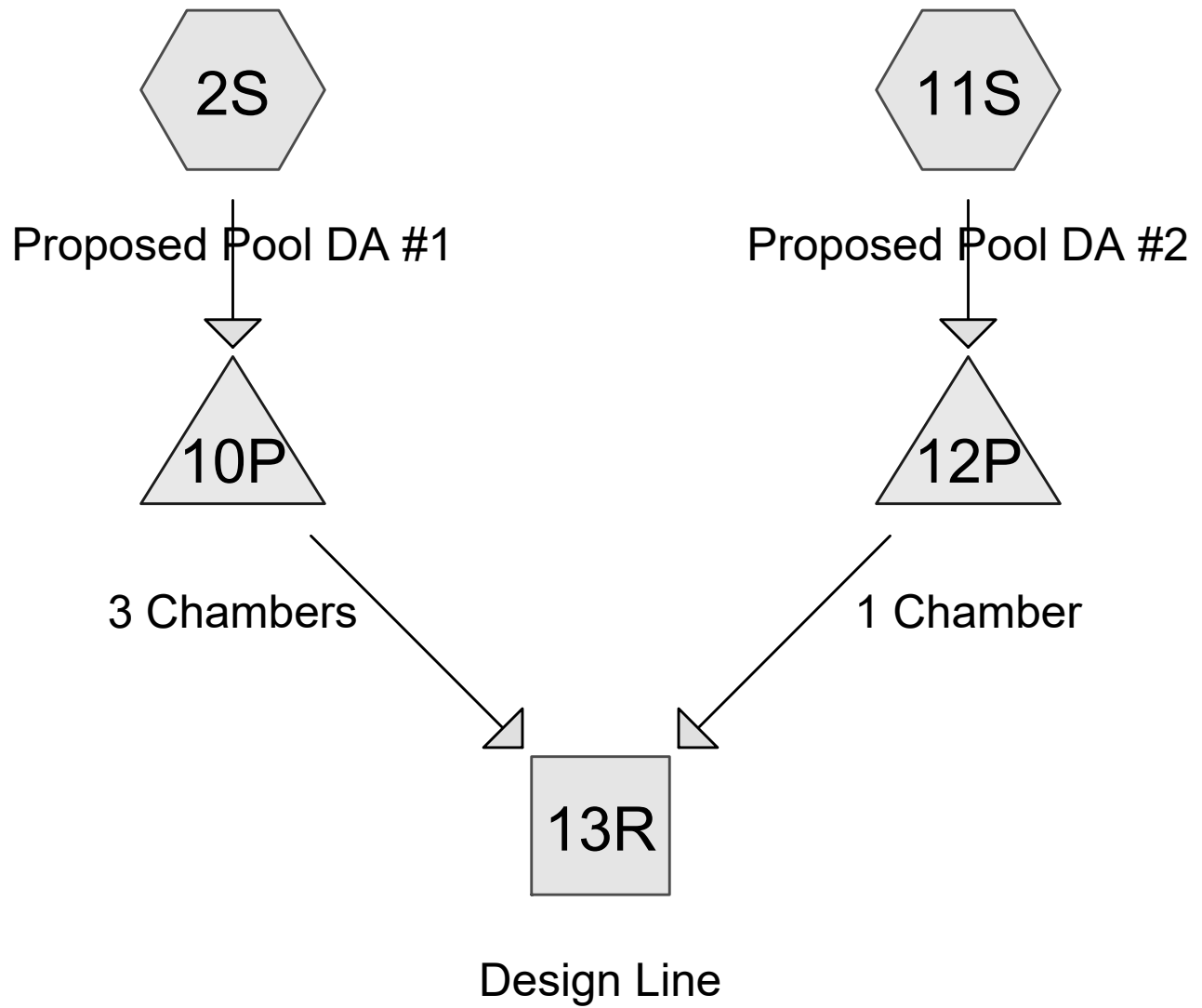


## **Appendix B**

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### Post-Development HydroCAD Analysis

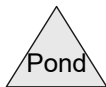




Subcat



Reach



Pond



Link

#### Routing Diagram for Nitta Pool

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HydroCAD® 10.10-6a s/n 11988 © 2020 HydroCAD Software Solutions LLC



## Nitta Pool

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### Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.051	98	Pool, patio, walk, HSG C (2S, 11S)
<b>0.051</b>	<b>98</b>	<b>TOTAL AREA</b>



## Nitta Pool

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Type III 24-hr 25-Yr Rainfall=6.38"

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### Summary for Subcatchment 2S: Proposed Pool DA #1

Runoff = 0.17 cfs @ 12.07 hrs, Volume= 0.013 af, Depth= 6.14"  
Routed to Pond 10P : 3 Chambers

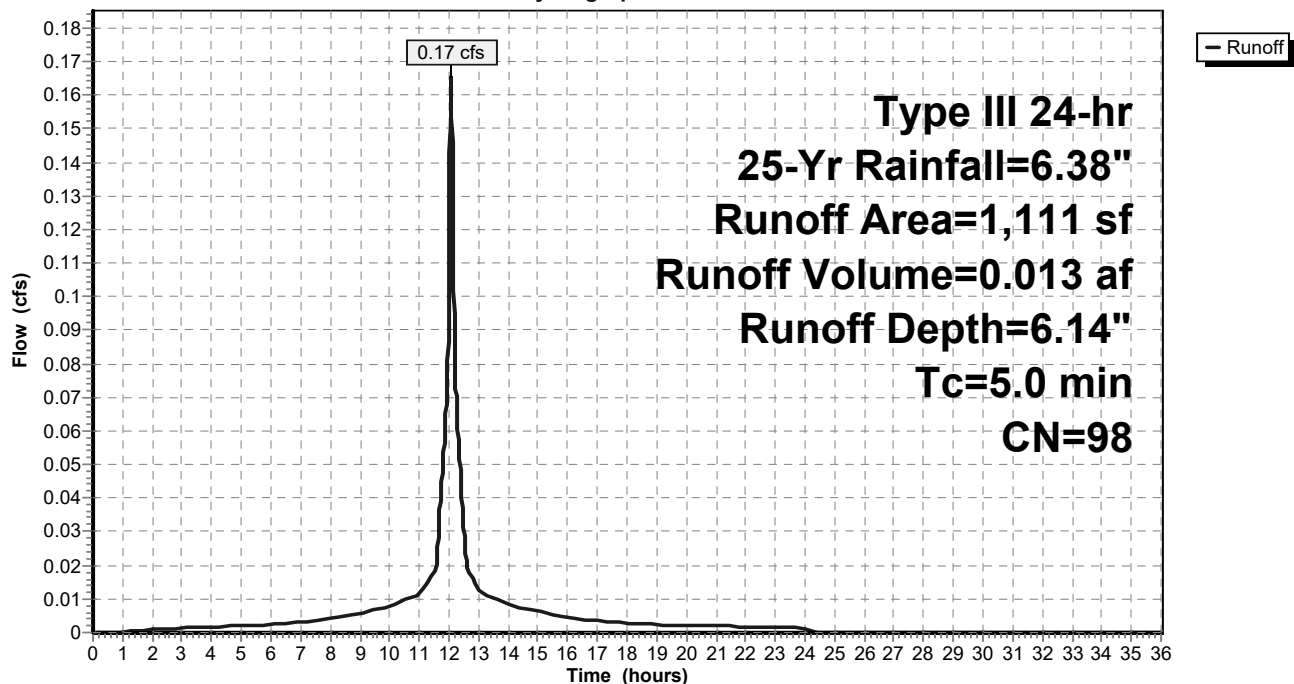
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
Type III 24-hr 25-Yr Rainfall=6.38"

Area (sf)	CN	Description
* 1,111	98	Pool, patio, walk, HSG C
1,111		100.00% Impervious Area

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

### Subcatchment 2S: Proposed Pool DA #1

Hydrograph





## Nitta Pool

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Type III 24-hr 25-Yr Rainfall=6.38"

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### Summary for Subcatchment 11S: Proposed Pool DA #2

Runoff = 0.17 cfs @ 12.07 hrs, Volume= 0.013 af, Depth= 6.14"  
Routed to Pond 12P : 1 Chamber

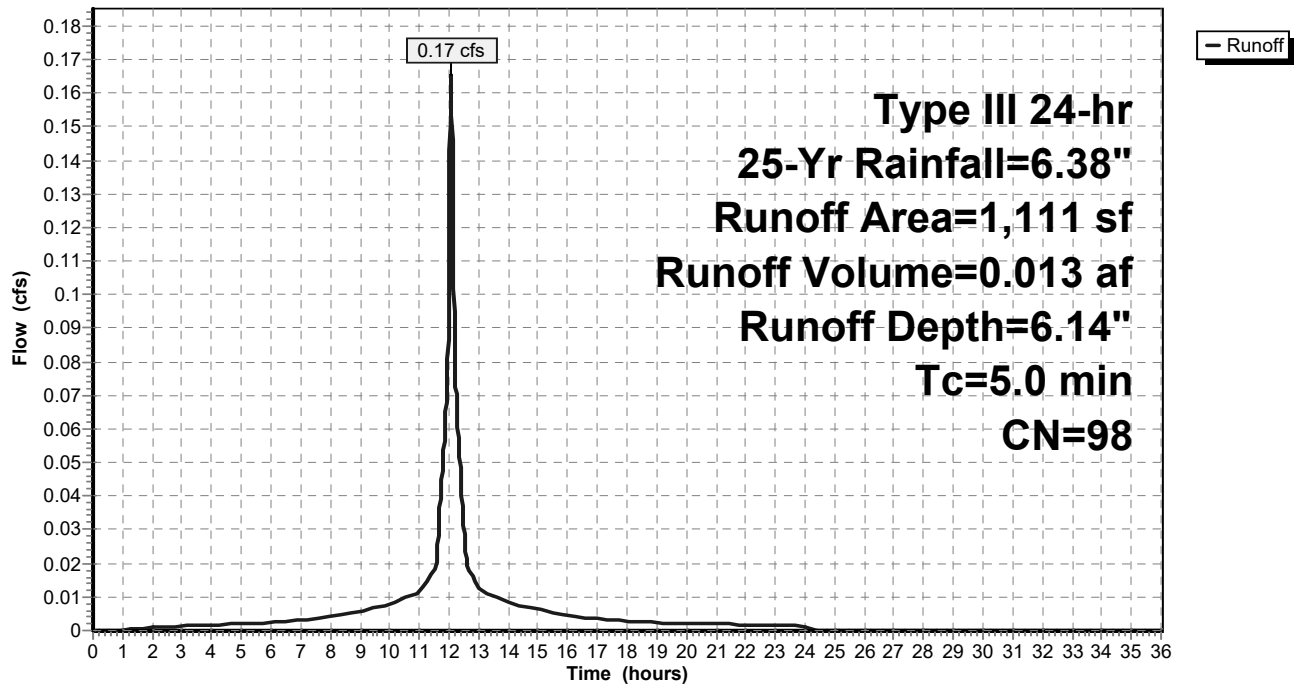
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
Type III 24-hr 25-Yr Rainfall=6.38"

Area (sf)	CN	Description
* 1,111	98	Pool, patio, walk, HSG C
1,111		100.00% Impervious Area

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

### Subcatchment 11S: Proposed Pool DA #2

Hydrograph





## Nitta Pool

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Type III 24-hr 25-Yr Rainfall=6.38"

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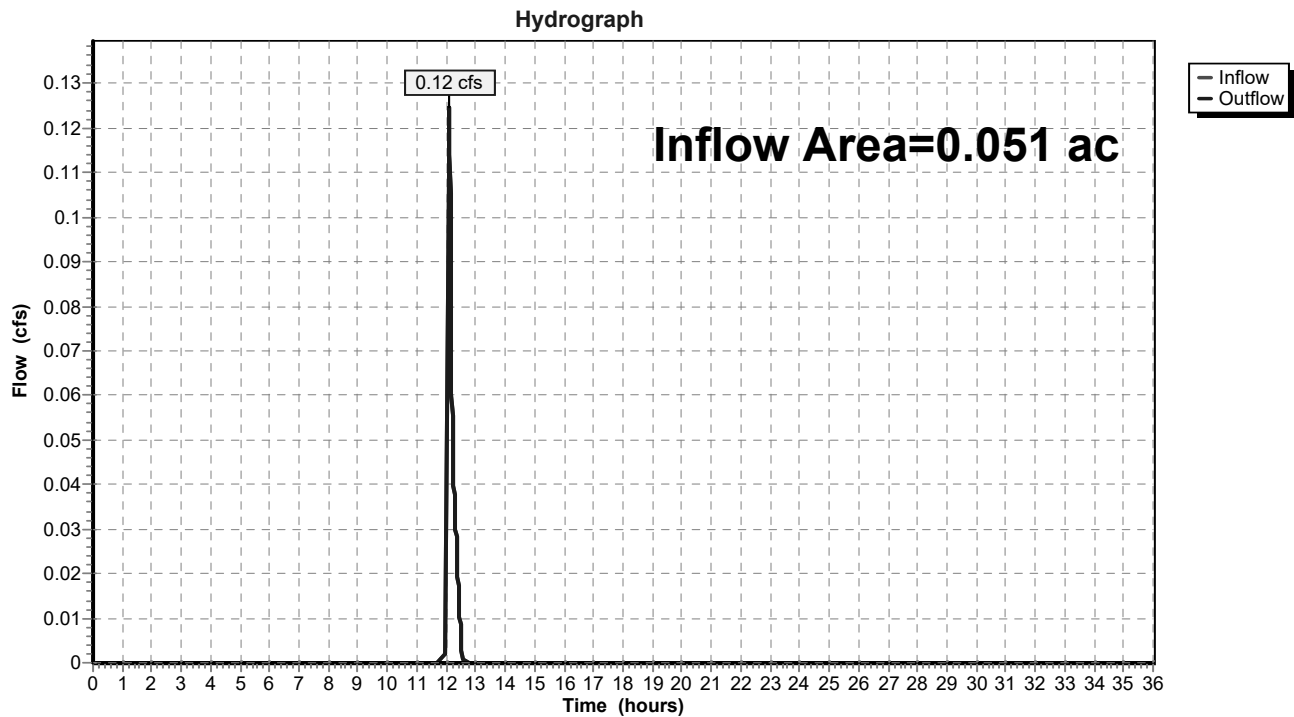
Page 5

### Summary for Reach 13R: Design Line

Inflow Area = 0.051 ac, 100.00% Impervious, Inflow Depth = 0.37" for 25-Yr event  
Inflow = 0.12 cfs @ 12.10 hrs, Volume= 0.002 af  
Outflow = 0.12 cfs @ 12.10 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

### Reach 13R: Design Line





**Nitta Pool**

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Type III 24-hr 25-Yr Rainfall=6.38"

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**Summary for Pond 10P: 3 Chambers**

Inflow Area = 0.026 ac, 100.00% Impervious, Inflow Depth = 6.14" for 25-Yr event  
 Inflow = 0.17 cfs @ 12.07 hrs, Volume= 0.013 af  
 Outflow = 0.07 cfs @ 11.92 hrs, Volume= 0.013 af, Atten= 59%, Lag= 0.0 min  
 Discarded = 0.07 cfs @ 11.92 hrs, Volume= 0.013 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Routed to Reach 13R : Design Line

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Peak Elev= 469.72' @ 12.25 hrs Surf.Area= 0.003 ac Storage= 0.001 af

Plug-Flow detention time= 2.9 min calculated for 0.013 af (100% of inflow)  
 Center-of-Mass det. time= 2.9 min ( 746.2 - 743.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	469.00'	0.003 af	<b>11.25'W x 13.00'L x 2.54'H Field A</b> 0.009 af Overall - 0.002 af Embedded = 0.007 af x 40.0% Voids
#2A	469.50'	0.002 af	<b>Cultec R-150XLHD x 3 Inside #1</b> Effective Size= 29.8"W x 18.0"H => 2.65 sf x 10.25'L = 27.2 cf Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap Row Length Adjustment= +0.75' x 2.65 sf x 3 rows
		0.005 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	469.00'	<b>20.000 in/hr Exfiltration over Surface area</b>
#2	Primary	471.00'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.07 cfs @ 11.92 hrs HW=469.03' (Free Discharge)  
 ↑ **1=Exfiltration** (Exfiltration Controls 0.07 cfs)

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=469.00' (Free Discharge)  
 ↑ **2=Orifice/Grate** ( Controls 0.00 cfs)



**Pond 10P: 3 Chambers - Chamber Wizard Field A****Chamber Model = Cultec R-150XLHD (Cultec Recharger® 150XLHD)**

Effective Size= 29.8"W x 18.0"H =&gt; 2.65 sf x 10.25'L = 27.2 cf

Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap

Row Length Adjustment= +0.75' x 2.65 sf x 3 rows

33.0" Wide + 6.0" Spacing = 39.0" C-C Row Spacing

1 Chambers/Row x 10.25' Long +0.75' Row Adjustment = 11.00' Row Length +12.0" End Stone x 2 =  
13.00' Base Length

3 Rows x 33.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 11.25' Base Width

6.0" Stone Base + 18.5" Chamber Height + 6.0" Stone Cover = 2.54' Field Height

3 Chambers x 27.2 cf +0.75' Row Adjustment x 2.65 sf x 3 Rows = 87.4 cf Chamber Storage

371.7 cf Field - 87.4 cf Chambers = 284.3 cf Stone x 40.0% Voids = 113.7 cf Stone Storage

Chamber Storage + Stone Storage = 201.1 cf = 0.005 af

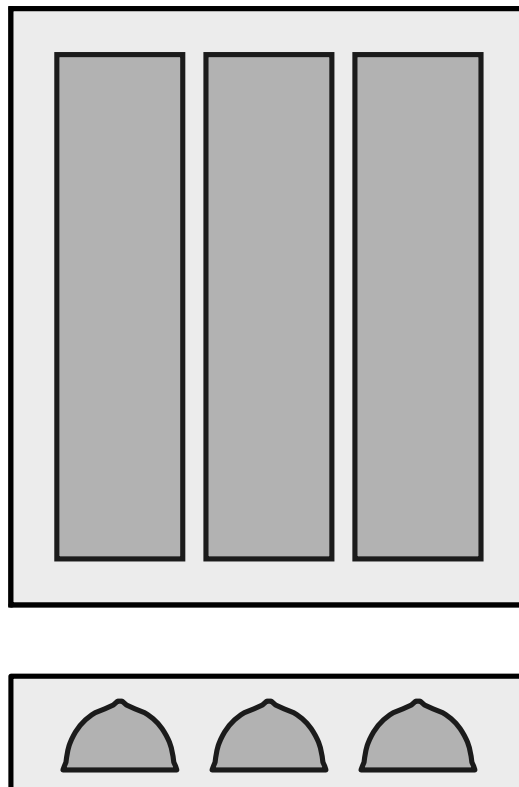
Overall Storage Efficiency = 54.1%

Overall System Size = 13.00' x 11.25' x 2.54'

3 Chambers

13.8 cy Field

10.5 cy Stone





## Nitta Pool

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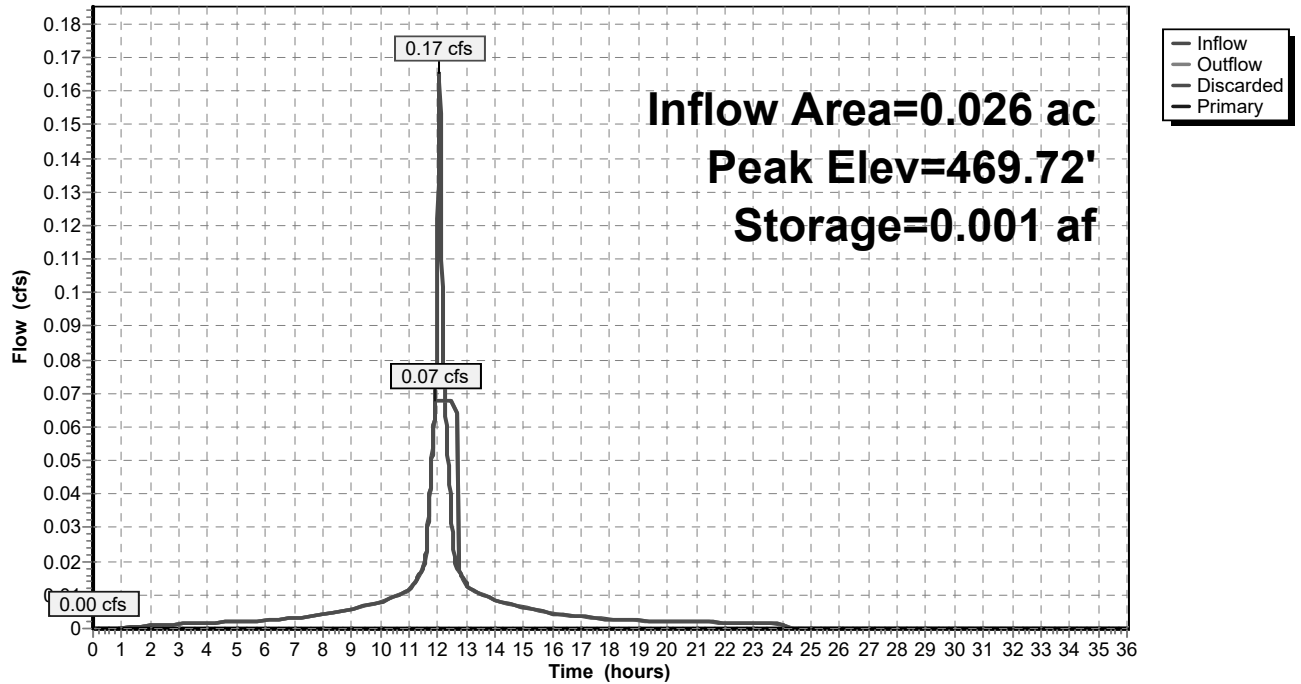
Type III 24-hr 25-Yr Rainfall=6.38"

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### Pond 10P: 3 Chambers

Hydrograph





**Nitta Pool**

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Type III 24-hr 25-Yr Rainfall=6.38"

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**Summary for Pond 12P: 1 Chamber**

Inflow Area = 0.026 ac, 100.00% Impervious, Inflow Depth = 6.14" for 25-Yr event  
 Inflow = 0.17 cfs @ 12.07 hrs, Volume= 0.013 af  
 Outflow = 0.15 cfs @ 12.10 hrs, Volume= 0.013 af, Atten= 7%, Lag= 2.0 min  
 Discarded = 0.03 cfs @ 11.65 hrs, Volume= 0.011 af  
 Primary = 0.12 cfs @ 12.10 hrs, Volume= 0.002 af  
 Routed to Reach 13R : Design Line

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3  
 Peak Elev= 471.21' @ 12.10 hrs Surf.Area= 0.001 ac Storage= 0.002 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)  
 Center-of-Mass det. time= 9.3 min ( 752.6 - 743.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	469.00'	0.001 af	<b>4.75'W x 13.00'L x 2.54'H Field A</b> 0.004 af Overall - 0.001 af Embedded = 0.003 af x 40.0% Voids
#2A	469.50'	0.001 af	<b>Cultec R-150XLHD Inside #1</b> Effective Size= 29.8"W x 18.0"H => 2.65 sf x 10.25'L = 27.2 cf Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap Row Length Adjustment= +0.75' x 2.65 sf x 1 rows
		0.002 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	469.00'	<b>20.000 in/hr Exfiltration over Surface area</b>
#2	Primary	471.00'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.03 cfs @ 11.65 hrs HW=469.03' (Free Discharge)  
 ↑ **1=Exfiltration** (Exfiltration Controls 0.03 cfs)

**Primary OutFlow** Max=0.12 cfs @ 12.10 hrs HW=471.21' (Free Discharge)  
 ↑ **2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 1.56 fps)



**Pond 12P: 1 Chamber - Chamber Wizard Field A****Chamber Model = Cultec R-150XLHD (Cultec Recharger® 150XLHD)**

Effective Size= 29.8"W x 18.0"H =&gt; 2.65 sf x 10.25'L = 27.2 cf

Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap

Row Length Adjustment= +0.75' x 2.65 sf x 1 rows

1 Chambers/Row x 10.25' Long +0.75' Row Adjustment = 11.00' Row Length +12.0" End Stone x 2 =  
13.00' Base Length

1 Rows x 33.0" Wide + 12.0" Side Stone x 2 = 4.75' Base Width

6.0" Stone Base + 18.5" Chamber Height + 6.0" Stone Cover = 2.54' Field Height

1 Chambers x 27.2 cf +0.75' Row Adjustment x 2.65 sf x 1 Rows = 29.1 cf Chamber Storage

156.9 cf Field - 29.1 cf Chambers = 127.8 cf Stone x 40.0% Voids = 51.1 cf Stone Storage

Chamber Storage + Stone Storage = 80.3 cf = 0.002 af

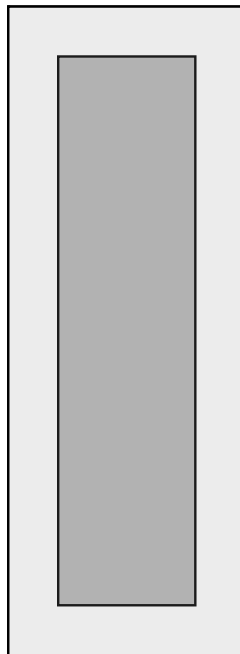
Overall Storage Efficiency = 51.1%

Overall System Size = 13.00' x 4.75' x 2.54'

1 Chambers

5.8 cy Field

4.7 cy Stone





## Nitta Pool

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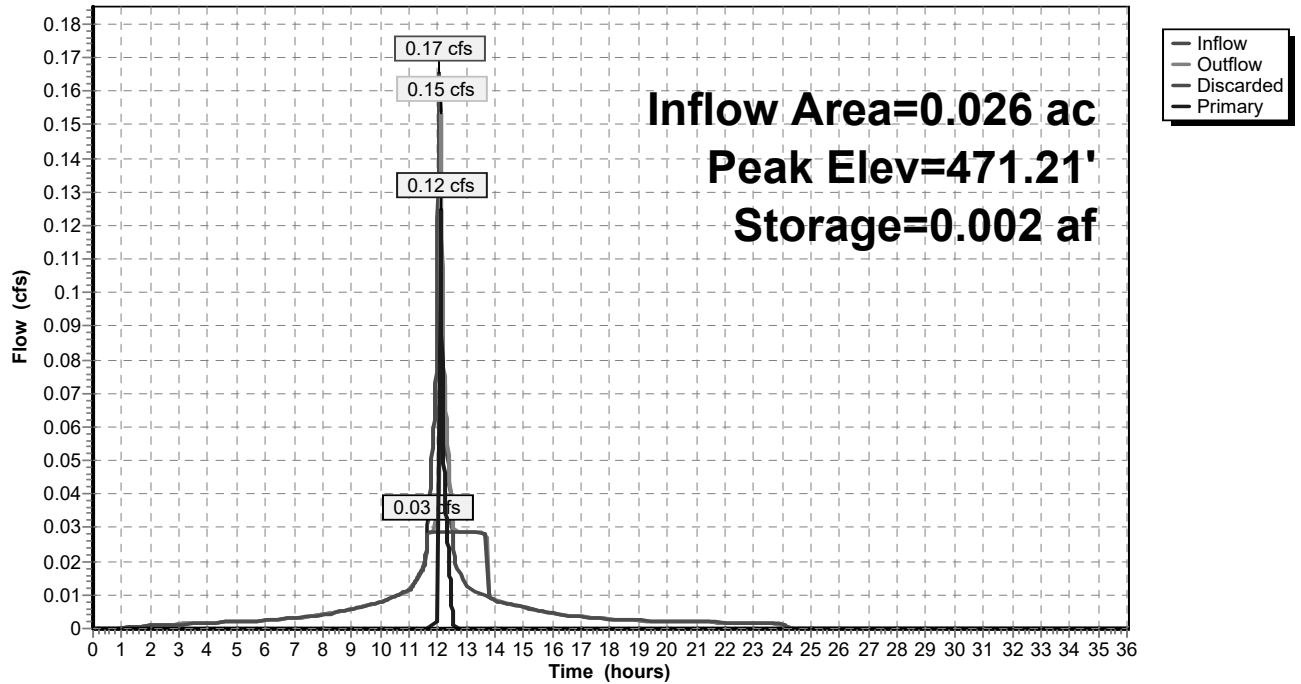
Type III 24-hr 25-Yr Rainfall=6.38"

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### Pond 12P: 1 Chamber

#### Hydrograph







## Appendix C

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### Rainfall Data



# Extreme Precipitation Tables

## Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

<b>Smoothing</b>	Yes
<b>State</b>	New York
<b>Location</b>	
<b>Longitude</b>	73.621 degrees West
<b>Latitude</b>	41.268 degrees North
<b>Elevation</b>	0 feet
<b>Date/Time</b>	Thu, 21 Oct 2021 21:14:43 -0400

## Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.33	0.51	0.64	0.83	1.04	1.30	<b>1yr</b>	0.90	1.23	1.49	1.85	2.28	2.81	3.17	<b>1yr</b>	2.49	3.05	3.53	4.23	4.86	<b>1yr</b>
<b>2yr</b>	0.40	0.61	0.76	1.00	1.26	1.57	<b>2yr</b>	1.09	1.47	1.81	2.24	2.76	3.40	3.81	<b>2yr</b>	3.01	3.67	4.21	4.97	5.63	<b>2yr</b>
<b>5yr</b>	0.46	0.72	0.90	1.21	1.55	1.96	<b>5yr</b>	1.34	1.81	2.26	2.81	3.47	4.27	4.82	<b>5yr</b>	3.78	4.63	5.35	6.22	6.99	<b>5yr</b>
<b>10yr</b>	0.52	0.81	1.03	1.39	1.81	2.31	<b>10yr</b>	1.56	2.12	2.68	3.34	4.13	5.07	5.75	<b>10yr</b>	4.49	5.53	6.42	7.37	8.23	<b>10yr</b>
<b>25yr</b>	0.60	0.95	1.21	1.68	2.24	2.89	<b>25yr</b>	1.93	2.61	3.37	4.21	5.21	6.38	7.28	<b>25yr</b>	5.65	7.00	8.18	9.23	10.24	<b>25yr</b>
<b>50yr</b>	0.68	1.09	1.39	1.95	2.63	3.42	<b>50yr</b>	2.27	3.06	4.00	5.01	6.20	7.59	8.71	<b>50yr</b>	6.72	8.38	9.82	10.94	12.07	<b>50yr</b>
<b>100yr</b>	0.77	1.24	1.60	2.27	3.09	4.06	<b>100yr</b>	2.67	3.59	4.76	5.98	7.39	9.04	10.42	<b>100yr</b>	8.00	10.02	11.81	12.98	14.24	<b>100yr</b>
<b>200yr</b>	0.87	1.42	1.84	2.64	3.64	4.81	<b>200yr</b>	3.14	4.22	5.66	7.12	8.81	10.77	12.47	<b>200yr</b>	9.53	11.99	14.20	15.40	16.80	<b>200yr</b>
<b>500yr</b>	1.04	1.71	2.23	3.24	4.54	6.03	<b>500yr</b>	3.91	5.22	7.12	8.98	11.12	13.59	15.82	<b>500yr</b>	12.03	15.21	18.13	19.30	20.92	<b>500yr</b>

## Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.24	0.38	0.46	0.62	0.76	0.99	<b>1yr</b>	0.66	0.97	1.22	1.58	2.03	2.55	2.80	<b>1yr</b>	2.26	2.69	3.27	3.69	4.52	<b>1yr</b>
<b>2yr</b>	0.38	0.59	0.73	0.99	1.22	1.46	<b>2yr</b>	1.05	1.43	1.67	2.13	2.70	3.30	3.69	<b>2yr</b>	2.92	3.55	4.08	4.82	5.47	<b>2yr</b>
<b>5yr</b>	0.42	0.65	0.81	1.11	1.41	1.71	<b>5yr</b>	1.21	1.67	1.95	2.52	3.15	3.93	4.45	<b>5yr</b>	3.48	4.28	4.93	5.73	6.45	<b>5yr</b>
<b>10yr</b>	0.45	0.70	0.86	1.21	1.56	1.92	<b>10yr</b>	1.35	1.88	2.19	2.87	3.55	4.49	5.08	<b>10yr</b>	3.97	4.88	5.69	6.49	7.28	<b>10yr</b>
<b>25yr</b>	0.49	0.74	0.93	1.32	1.74	2.21	<b>25yr</b>	1.50	2.16	2.55	3.40	4.15	5.33	6.06	<b>25yr</b>	4.72	5.83	6.87	7.69	8.55	<b>25yr</b>
<b>50yr</b>	0.51	0.78	0.97	1.40	1.88	2.44	<b>50yr</b>	1.63	2.39	2.87	3.88	4.67	6.09	6.94	<b>50yr</b>	5.39	6.68	7.93	8.75	9.63	<b>50yr</b>
<b>100yr</b>	0.54	0.82	1.03	1.48	2.04	2.69	<b>100yr</b>	1.76	2.63	3.25	4.43	5.18	6.97	7.94	<b>100yr</b>	6.17	7.64	9.19	9.94	10.87	<b>100yr</b>
<b>200yr</b>	0.57	0.86	1.09	1.57	2.20	2.97	<b>200yr</b>	1.90	2.90	3.67	5.08	5.83	7.96	9.13	<b>200yr</b>	7.05	8.78	10.67	11.30	12.28	<b>200yr</b>
<b>500yr</b>	0.61	0.90	1.16	1.69	2.40	3.39	<b>500yr</b>	2.07	3.32	4.33	6.13	6.81	9.51	11.00	<b>500yr</b>	8.41	10.58	13.04	13.42	14.40	<b>500yr</b>

## Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.37	0.57	0.70	0.94	1.16	1.40	<b>1yr</b>	1.00	1.37	1.58	2.04	2.55	3.05	3.41	<b>1yr</b>	2.70	3.28	3.79	4.50	5.21	<b>1yr</b>
<b>2yr</b>	0.42	0.65	0.80	1.09	1.34	1.56	<b>2yr</b>	1.16	1.53	1.79	2.27	2.86	3.52	3.98	<b>2yr</b>	3.11	3.83	4.37	5.16	5.83	<b>2yr</b>
<b>5yr</b>	0.50	0.78	0.96	1.32	1.68	1.98	<b>5yr</b>	1.45	1.94	2.28	2.94	3.68	4.61	5.22	<b>5yr</b>	4.08	5.02	5.77	6.73	7.51	<b>5yr</b>
<b>10yr</b>	0.59	0.91	1.12	1.57	2.03	2.39	<b>10yr</b>	1.75	2.33	2.76	3.58	4.50	5.69	6.43	<b>10yr</b>	5.04	6.18	7.15	8.25	9.13	<b>10yr</b>
<b>25yr</b>	0.74	1.13	1.41	2.01	2.64	3.08	<b>25yr</b>	2.28	3.01	3.56	4.63	5.85	7.50	8.51	<b>25yr</b>	6.64	8.18	9.47	10.78	11.83	<b>25yr</b>
<b>50yr</b>	0.88	1.34	1.67	2.40	3.22	3.74	<b>50yr</b>	2.78	3.65	4.32	5.63	7.15	9.26	10.51	<b>50yr</b>	8.19	10.11	11.72	13.23	14.41	<b>50yr</b>
<b>100yr</b>	1.06	1.60	2.00	2.89	3.96	4.54	<b>100yr</b>	3.42	4.44	5.23	6.85	9.16	11.43	12.99	<b>100yr</b>	10.12	12.49	14.47	16.23	17.57	<b>100yr</b>
<b>200yr</b>	1.26	1.90	2.41	3.49	4.86	5.51	<b>200yr</b>	4.19	5.39	6.33	8.31	11.27	14.11	16.06	<b>200yr</b>	12.49	15.44	17.91	19.90	21.42	<b>200yr</b>
<b>500yr</b>	1.62	2.42	3.11	4.52	6.42	7.12	<b>500yr</b>	5.54	6.96	8.17	10.75	14.89	18.62	21.25	<b>500yr</b>	16.48	20.43	23.65	26.02	27.78	<b>500yr</b>





## Appendix D

---

Soil Map



## An aerial photograph of a residential area. A yellow boundary outlines a large, irregularly shaped lot. Inside this lot, there are three smaller, irregularly shaped areas outlined in yellow and labeled: 'PnB' (top left), 'RgB' (top right), and 'PnC' (bottom right). A road labeled 'Lambert Rdg' runs along the right side of the lot. A small circular icon with a double arrow is located near the center of the lot. The surrounding area includes other houses, trees, and a road.




































73° 37' 18" W

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84





## MAP LEGEND

<b>Area of Interest (AOI)</b>		<b>Area of Interest (AOI)</b>		Spoil Area
<b>Soils</b>				Stony Spot
	Soil Map Unit Polygons			Very Stony Spot
	Soil Map Unit Lines			Wet Spot
	Soil Map Unit Points			Other
<b>Special Point Features</b>				Special Line Features
	Blowout			<b>Water Features</b>
	Borrow Pit			Streams and Canals
	Clay Spot			<b>Transportation</b>
	Closed Depression			Rails
	Gravel Pit			Interstate Highways
	Gravelly Spot			US Routes
	Landfill			Major Roads
	Lava Flow			Local Roads
	Marsh or swamp			<b>Background</b>
	Mine or Quarry			Aerial Photography
	Miscellaneous Water			
	Perennial Water			
	Rock Outcrop			
	Saline Spot			
	Sandy Spot			
	Severely Eroded Spot			
	Sinkhole			
	Slide or Slip			
	Sodic Spot			

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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

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

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

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Westchester County, New York  
Survey Area Data: Version 17, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 16, 2017

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



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	1.2	91.5%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	0.0	0.7%
RgB	Ridgebury complex, 0 to 8 percent slopes, very stony	0.1	7.7%
<b>Totals for Area of Interest</b>		<b>1.3</b>	<b>100.0%</b>





Department of  
Environmental  
Conservation

NYS Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505

## MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

**Construction Activities Seeking Authorization Under SPDES General Permit**

\*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

### I. Project Owner/Operator Information

1. Owner/Operator Name:

2. Contact Person:

3. Street Address:

4. City/State/Zip:

### II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/State/Zip:

### III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information

8. SWPPP Reviewed by:

9. Title/Position:

10. Date Final SWPPP Reviewed and Accepted:

### IV. Regulated MS4 Information

11. Name of MS4:

12. MS4 SPDES Permit Identification Number: NYR20A

13. Contact Person:

14. Street Address:

15. City/State/Zip:

16. Telephone Number:



## **MS4 SWPPP Acceptance Form - continued**

### **V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative**

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

### **VI. Additional Information**



# NOI for coverage under Stormwater General Permit for Construction Activity

version 1.31

(Submission #: HPC-N0YG-W9Z86, version 1)

## Details

---

**Originally Started By** Brian Hildenbrand

**Submission ID** HPC-N0YG-W9Z86

**Submission Reason** New

**Status** Draft

## Form Input

---

### Owner/Operator Information

**Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)**

NITTA FAMILY

**Owner/Operator Contact Person Last Name (NOT CONSULTANT)**

NITTA

**Owner/Operator Contact Person First Name**

RUBINA

**Owner/Operator Mailing Address**

10 LAMBERT RIDGE ROAD

**City**

CROSS RIVER

**State**

NY



**Zip**

10518

**Phone**

8457026199

**Email**

RUBINANITTA@GMAIL.COM

**Federal Tax ID**

NONE PROVIDED

**Project Location****Project/Site Name**

NITTA POOL

**Street Address (Not P.O. Box)**

10 LAMBERT RIDGE ROAD

**Side of Street**

South

**City/Town/Village (THAT ISSUES BUILDING PERMIT)**

LEWISBORO

**State**

NY

**Zip**

10518

**DEC Region**

3

**County**

WESTCHESTER

**Name of Nearest Cross Street**

AVERY ROAD

**Distance to Nearest Cross Street (Feet)**

800

**Project In Relation to Cross Street**

East

**Tax Map Numbers Section-Block-Parcel**

42.3-1-109



**Tax Map Numbers**

NONE PROVIDED

**1. Coordinates**

---

Provide the Geographic Coordinates for the project site. The two methods are:

- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

**Navigate to your location and click on the map to get the X,Y coordinates**

41.26868250506313,-73.62091045048237

**Project Details****2. What is the nature of this project?**

New Construction

**3. Select the predominant land use for both pre and post development conditions.****Pre-Development Existing Landuse**

Single Family Home

**Post-Development Future Land Use**

Single Family Home

**3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.**

NONE PROVIDED

---

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area.

\*\*\* ROUND TO THE NEAREST TENTH OF AN ACRE. \*\*\*

**Total Site Area (acres)**

.99

**Total Area to be Disturbed (acres)**

.2

**Existing Impervious Area to be Disturbed (acres)**

0.2



**Future Impervious Area Within Disturbed Area (acres)**

.05

**5. Do you plan to disturb more than 5 acres of soil at any one time?**

No

---

6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

**A (%)**

0

**B (%)**

0

**C (%)**

100

**D (%)**

0

**7. Is this a phased project?**

No

**8. Enter the planned start and end dates of the disturbance activities.**

**Start Date**

12/1/2021

**End Date**

4/1/2022

**9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.**

OFF-SITE LOCAL WETLAND

**9a. Type of waterbody identified in question 9?**

Wetland/Federal Jurisdiction Off Site

**Other Waterbody Type Off Site Description**

NONE PROVIDED

**9b. If "wetland" was selected in 9A, how was the wetland identified?**

NONE PROVIDED

**10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?**

No



**11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?**

Yes

**12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?**

Yes

**If No, skip question 13.**

**13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey?**

No

**If Yes, what is the acreage to be disturbed?**

NONE PROVIDED

**14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?**

No

**15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?**

No

**16. What is the name of the municipality/entity that owns the separate storm sewer system?**

NONE PROVIDED

**17. Does any runoff from the site enter a sewer classified as a Combined Sewer?**

No

**18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?**

No

**19. Is this property owned by a state authority, state agency, federal government or local government?**

No

**20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)**

No

## **Required SWPPP Components**



**21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?**

Yes

**22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?**

No

**If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.**

**23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?**

NONE PROVIDED

**24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:**  
Professional Engineer (P.E.)

**SWPPP Preparer**

HILDENBRAND ENGINEERING, PLLC

**Contact Name (Last, Space, First)**

HILDENBRAND BRIAN

**Mailing Address**

208 creamery road

**City**

Hopewell Junction

**State**

NY

**Zip**

12533

**Phone**

8452066994

**Email**

brian@HildenEng.com

**Download SWPPP Preparer Certification Form**

Please take the following steps to prepare and upload your preparer certification form:

- 1) Click on the link below to download a blank certification form
- 2) The certified SWPPP preparer should sign this form



3) Scan the signed form

4) Upload the scanned document

[Download SWPPP Preparer Certification Form](#)

**Please upload the SWPPP Preparer Certification**

NONE PROVIDED

**Comment**

NONE PROVIDED

## **Erosion & Sediment Control Criteria**

**25. Has a construction sequence schedule for the planned management practices been prepared?**

Yes

**26. Select all of the erosion and sediment control practices that will be employed on the project site:**

### **Temporary Structural**

Dust Control

Stabilized Construction Entrance

### **Biotechnical**

None

### **Vegetative Measures**

Mulching

Seeding

Sodding

Topsoiling

### **Permanent Structural**

None

### **Other**

NONE PROVIDED

## **Post-Construction Criteria**

**\* IMPORTANT: Completion of Questions 27-39 is not required if response to Question 22 is No.**

**27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.**

NONE PROVIDED



**27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).**

NONE PROVIDED

**28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)**

NONE PROVIDED

**29. Post-construction SMP Identification**

Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

**30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)**

NONE PROVIDED

**31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?**

NONE PROVIDED

**If Yes, go to question 36. If No, go to question 32.**

**32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P) (0.95) (Ai) / 12, Ai=(s) (Aic)] (acre-feet)**

NONE PROVIDED

**32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?**

NONE PROVIDED

**If Yes, go to question 33.**

Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.



**33. SMPs**

Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section to identify the SMPs used on Redevelopment projects.

**33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question #29. (acre-feet)**

NONE PROVIDED

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - provided by the practice. (See Table 3.5 in Design Manual)

**34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).**

NONE PROVIDED

**35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?**

NONE PROVIDED

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

**36. Provide the total Channel Protection Storage Volume (CPv required and provided or select waiver (#36a), if applicable.****CPv Required (acre-feet)**

NONE PROVIDED

**CPv Provided (acre-feet)**

NONE PROVIDED

**36a. The need to provide channel protection has been waived because:**

NONE PROVIDED

**37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.****Overbank Flood Control Criteria (Qp)****Pre-Development (CFS)**

NONE PROVIDED



**Post-Development (CFS)**

NONE PROVIDED

**Total Extreme Flood Control Criteria (Qf)****Pre-Development (CFS)**

NONE PROVIDED

**Post-Development (CFS)**

NONE PROVIDED

**37a. The need to meet the Qp and Qf criteria has been waived because:**

NONE PROVIDED

**38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?**

NONE PROVIDED

**If Yes, Identify the entity responsible for the long term Operation and Maintenance**

NONE PROVIDED

**39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information.**

NONE PROVIDED

**Post-Construction SMP Identification****Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs**

Identify the Post-construction SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

**RR Techniques (Area Reduction)**

Round to the nearest tenth

**Total Contributing Acres for Conservation of Natural Area (RR-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)**

NONE PROVIDED

**Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)**

NONE PROVIDED



**Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)**

NONE PROVIDED

**Total Contributing Acres for Tree Planting/Tree Pit (RR-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)**

NONE PROVIDED

**Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)**

NONE PROVIDED

**RR Techniques (Volume Reduction)**

---

**Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Vegetated Swale (RR-5)**

NONE PROVIDED

**Total Contributing Impervious Acres for Rain Garden (RR-6)**

NONE PROVIDED

**Total Contributing Impervious Acres for Stormwater Planter (RR-7)**

NONE PROVIDED

**Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)**

NONE PROVIDED

**Total Contributing Impervious Acres for Porous Pavement (RR-9)**

NONE PROVIDED

**Total Contributing Impervious Acres for Green Roof (RR-10)**

NONE PROVIDED

**Standard SMPs with RRV Capacity**

---

**Total Contributing Impervious Acres for Infiltration Trench (I-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Infiltration Basin (I-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Dry Well (I-3)**

NONE PROVIDED



**Total Contributing Impervious Acres for Underground Infiltration System (I-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Bioretention (F-5)**

NONE PROVIDED

**Total Contributing Impervious Acres for Dry Swale (O-1)**

NONE PROVIDED

**Standard SMPs**

---

**Total Contributing Impervious Acres for Micropool Extended Detention (P-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Wet Pond (P-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Wet Extended Detention (P-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Multiple Pond System (P-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pocket Pond (P-5)**

NONE PROVIDED

**Total Contributing Impervious Acres for Surface Sand Filter (F-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Underground Sand Filter (F-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Organic Filter (F-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Shallow Wetland (W-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Extended Detention Wetland (W-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pond/Wetland System (W-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pocket Wetland (W-4)**

NONE PROVIDED



**Total Contributing Impervious Acres for Wet Swale (O-2)**

NONE PROVIDED

**Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)**

---

**Total Contributing Impervious Area for Hydrodynamic**

NONE PROVIDED

**Total Contributing Impervious Area for Wet Vault**

NONE PROVIDED

**Total Contributing Impervious Area for Media Filter**

NONE PROVIDED

**"Other" Alternative SMP?**

NONE PROVIDED

**Total Contributing Impervious Area for "Other"**

NONE PROVIDED

**Provide the name and manufacturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.**

**Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.**

**Manufacturer of Alternative SMP**

NONE PROVIDED

**Name of Alternative SMP**

NONE PROVIDED

**Other Permits**

**40. Identify other DEC permits, existing and new, that are required for this project/facility.**

None

**If SPDES Multi-Sector GP, then give permit ID**

NONE PROVIDED

**If Other, then identify**

NONE PROVIDED



**41. Does this project require a US Army Corps of Engineers Wetland Permit?**

No

**If "Yes," then indicate Size of Impact, in acres, to the nearest tenth**

NONE PROVIDED

**42. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.**

NONE PROVIDED

**MS4 SWPPP Acceptance****43. Is this project subject to the requirements of a regulated, traditional land use control MS4?**

Yes - Please attach the MS4 Acceptance form below

**If No, skip question 44****44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?**

Yes

**MS4 SWPPP Acceptance Form Download**

Download form from the link below. Complete, sign, and upload.

[MS4 SWPPP Acceptance Form](#)**MS4 Acceptance Form Upload**

NONE PROVIDED

**Comment**

NONE PROVIDED

**Owner/Operator Certification****Owner/Operator Certification Form Download**

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.

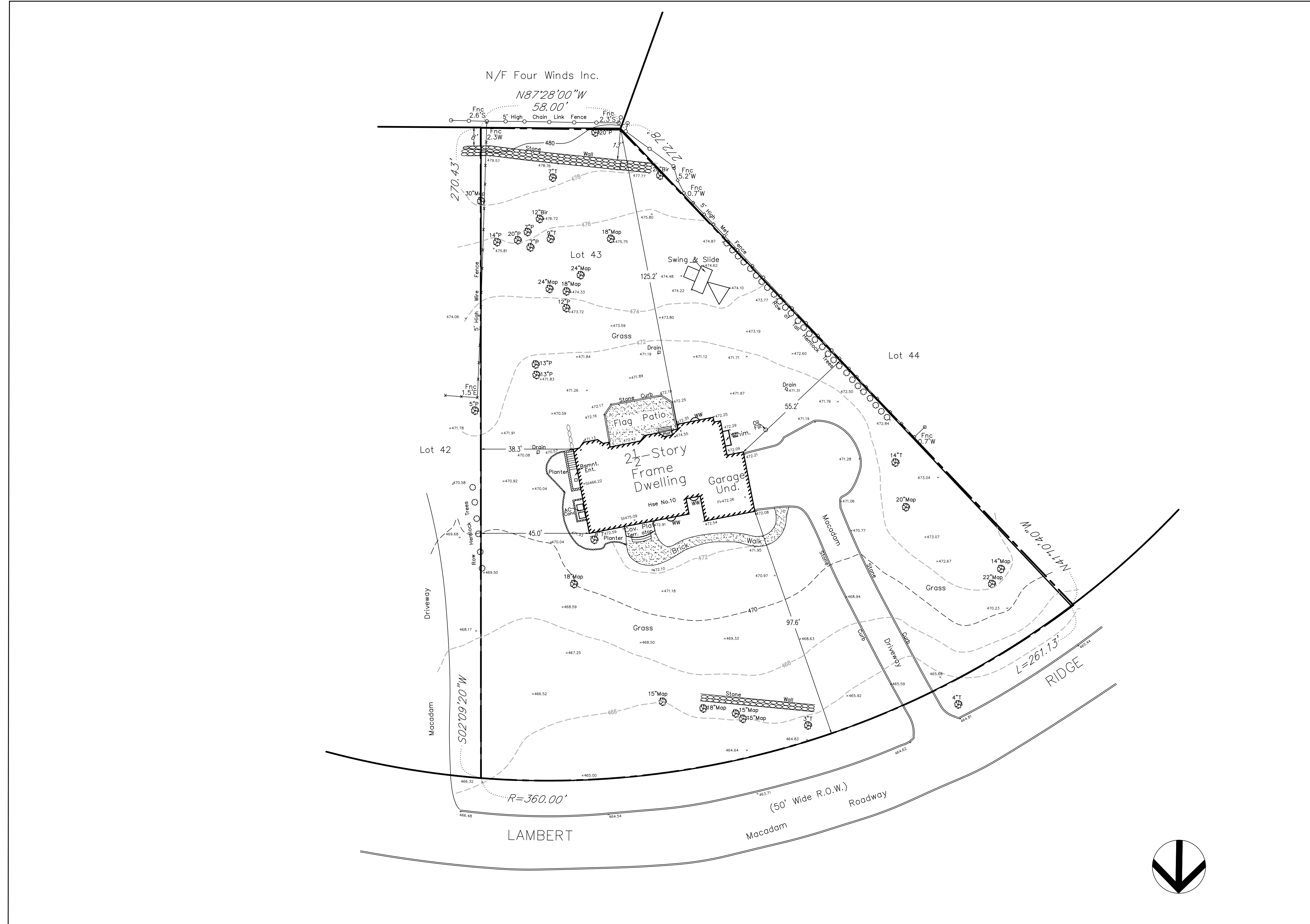
[Owner/Operator Certification Form \(PDF, 45KB\)](#)**Upload Owner/Operator Certification Form**

NONE PROVIDED

**Comment**

NONE PROVIDED





EXISTING CONDITIONS PLAN

SCALE: 1" = 20'



LOCATION MAP

SCALE: NTS

SITE DATA

OWNER / APPLICANT:  
RUBINA & SATYA NITTA  
10 LAMBERT RIDGE ROAD  
CROSS RIVER, NEW YORK 10518

PROJECT LOCATION:  
10 LAMBERT RIDGE ROAD  
CROSS RIVER, NEW YORK 10518

PROPERTY AREA: 0.99 AC

TAX MAP: 42.3-1-109

ZONING DISTRICT: R-1A

GENERAL NOTES

- THIS MAP IS NOT A SURVEY. EXISTING CONDITIONS REFERENCED FROM SURVEY PREPARED BY RONALD PERSAUD, L.S. DATED OCTOBER 23, 2021.
- SEE PLANS PREPARED BY CARRIAGE HOUSE GARDENS FOR POOL INFORMATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE EXISTING FEATURES DISTURBED BY THE CONSTRUCTION OF THIS CONTRACT TO EXISTING CONDITION OR BETTER, AS DETERMINED BY THE ENGINEER.
- THE ENGINEER WHOSE SEAL APPEARS HEREON IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND, THEREFORE, ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION PRACTICES, PROCEDURES, AND RESULTS THEREFROM.
- THE ENGINEER SHALL NOT BE HELD RESPONSIBLE OR HELD ACCOUNTABLE FOR THE INTEGRITY OF ANY STRUCTURES CONSTRUCTED OR UNDER CONSTRUCTION PRIOR TO THE APPROVAL OF THESE PLANS.

GENERAL EROSION CONTROL NOTES

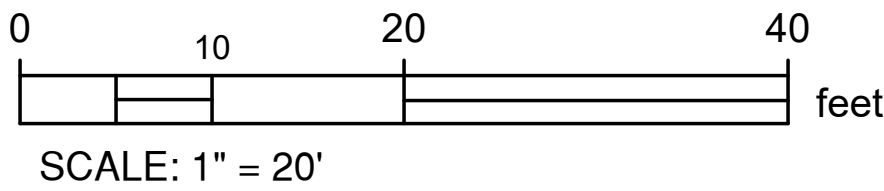
- THE APPLICANT SHALL BE REQUIRED TO CLEAN ROADWAYS AND EXISTING DOWNSTREAM DRAINAGE UTILITIES FROM ALL SILTATION AND CONSTRUCTION DEBRIS AS REQUIRED, AND UPON COMPLETION OF WORK.
- ALL PLANS SHOULD FULLY INCORPORATE THE APPROPRIATE RECOMMENDATIONS FROM NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, DATED AUGUST 2005, OR THE MOST CURRENT VERSION OR ITS SUCCESSOR. THE PLAN AND ITS IMPLEMENTATION SHALL BE SUBJECT TO THE APPROVAL OF THE TOWN ENGINEER.
- THE MEASURES FOR THE CONTROL OF EROSION AND SEDIMENTATION ARE UNDERTAKEN CONSISTENT WITH THE NEW YORK STATE'S STORMWATER DESIGN MANUAL, DATED AUGUST 2004, OR THE MOST CURRENT VERSION OR ITS SUCCESSOR, SATISFACTORY TO THE TOWN.
- ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE AND PROPERTY DISPOSED OF AT AN APPROPRIATE FACILITY.
- ALL PROPOSED DRAINAGE IMPROVEMENTS SHALL BE 10' MINIMUM FROM ALL PROPERTY LINES.

CONSTRUCTION SEQUENCE

- STAKE THE PROPOSED LIMIT OF DISTURBANCE.
- INSTALL PERIMETER EROSION CONTROLS DOWNGRADE OF ALL PROPOSED DISTURBANCE.
- ROUGH GRADE THE PROJECT AREA.
- INSTALL POOL AND PATIO
- INSTALL POOL EQUIPMENT
- INSTALL POOL FENCE
- STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, GRASS SEED AND MULCH.
- REMOVE THE EROSION CONTROLS ONCE THE DISTURBANCE IS STABILIZED.

LEGEND

- PROPOSED 2' CONTOUR
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED POOL FENCE
- PROPOSED SOIL STOCKPILE



HOPEWELL JUNCTION, NY  
945.206.6994  
Brian@HildenEng.com



BRIAN HILDENBRAND, P.E.  
LIC# 092374

REVISED: NOVEMBER 30, 2021 - PER TOWN COMMENTS

PROJECT:  
**10 LAMBERT RIDGE ROAD**  
TOWN OF LEWISBORO, WESTCHESTER COUNTY, NEW YORK

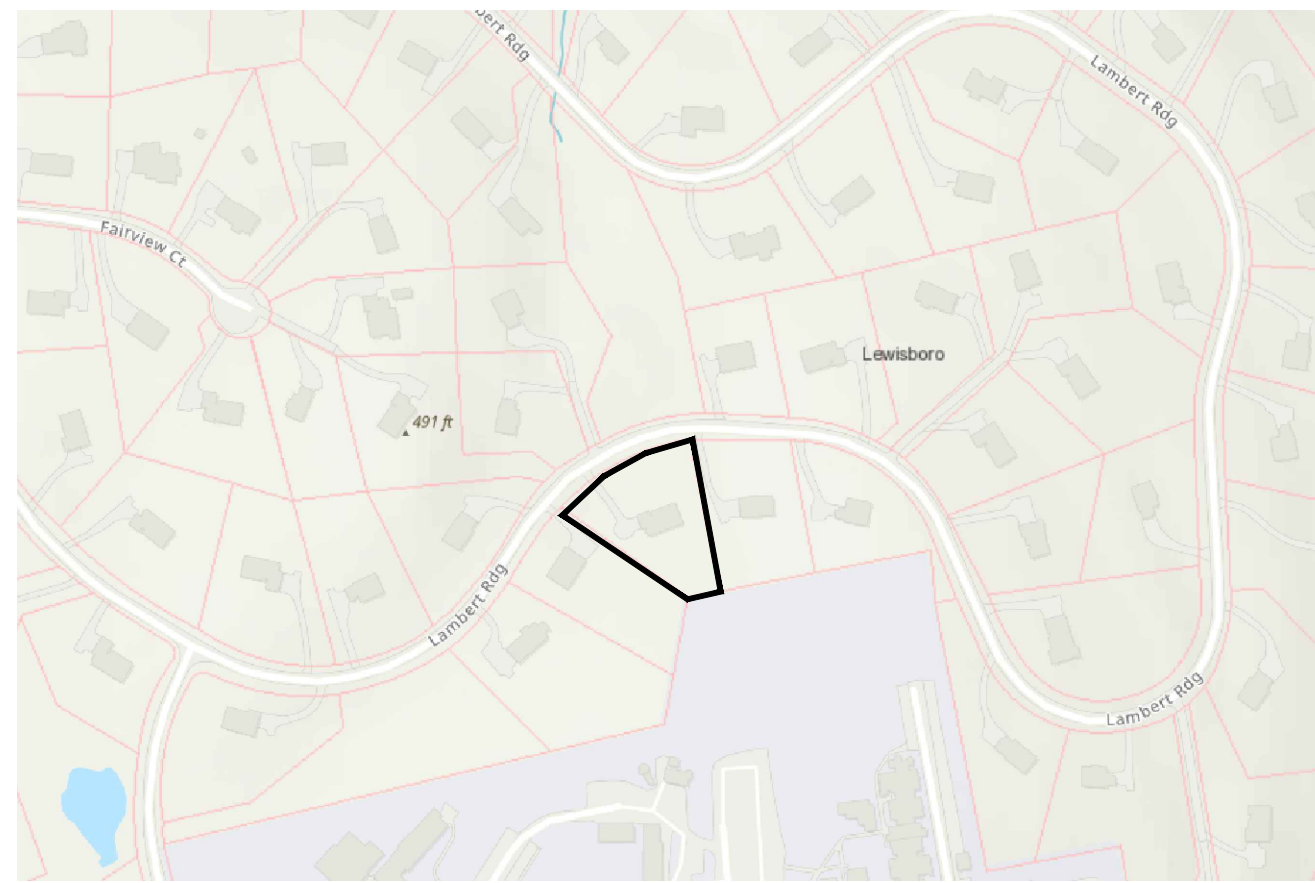
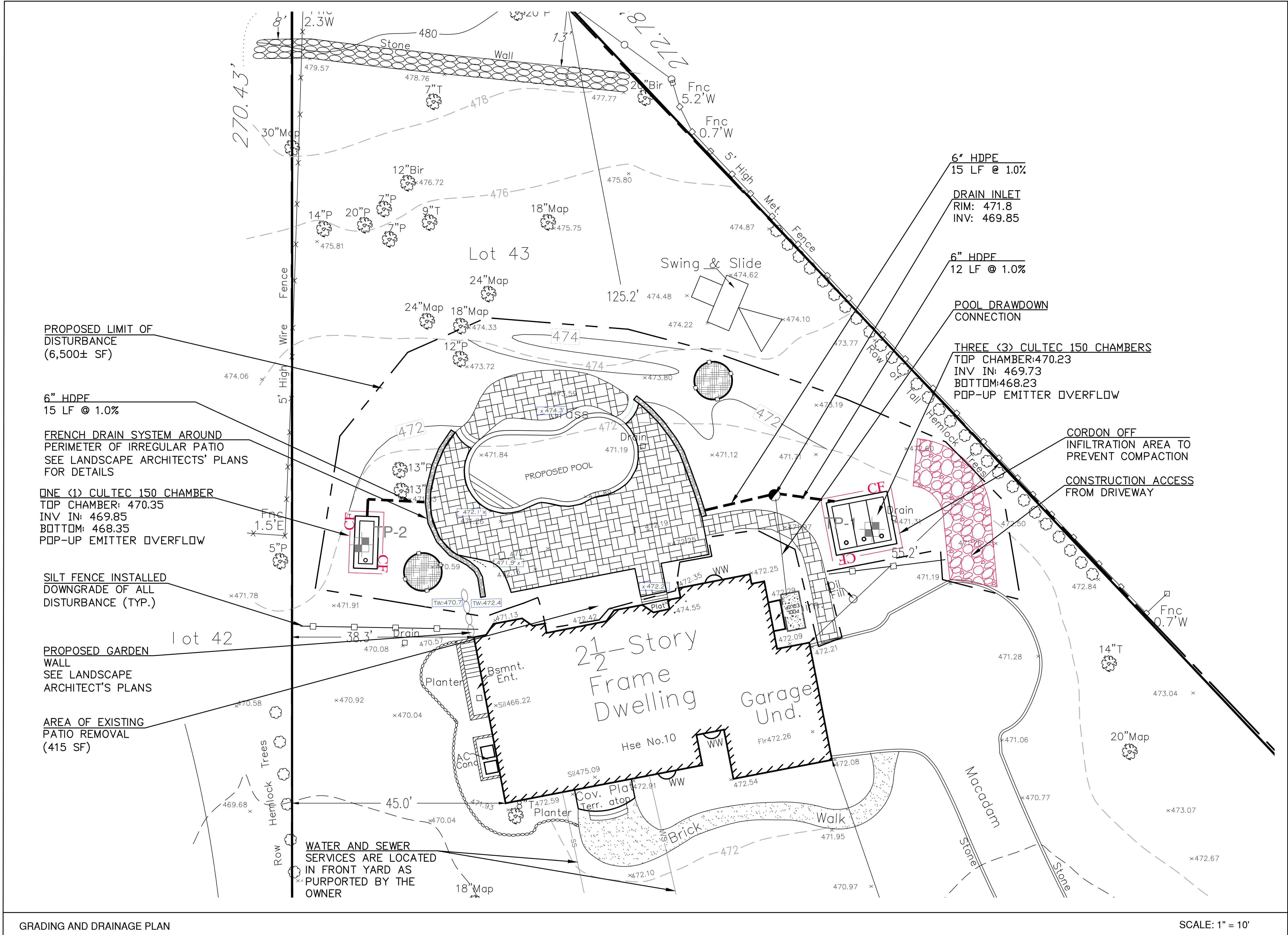
DRAWING:  
**EXISTING CONDITIONS**

DATE: 10-25-2021  
PROJECT NO.: -  
SCALE: AS SHOWN  
DRAWN BY: B.J.H.

DRAWING NO.:  
**EX.1**

SHEET:  
**1**  
**3**





LOCATION MAP SCALE: NTS

SITE DATA	
OWNER / APPLICANT:	RUBINA & SATYA NITTA 10 LAMBERT RIDGE ROAD CROSS RIVER, NEW YORK 10518
PROJECT LOCATION:	10 LAMBERT RIDGE ROAD CROSS RIVER, NEW YORK 10518
PROPERTY AREA:	0.99 AC
TAX MAP:	42.3-1-109
ZONING DISTRICT:	R-1A

- GENERAL NOTES
- THIS MAP IS NOT A SURVEY. EXISTING CONDITIONS REFERENCED FROM SURVEY PREPARED BY RONALD PERSAUD, L.S. DATED OCTOBER 23, 2021.
  - SEE PLANS PREPARED BY CARRIAGE HOUSE GARDENS FOR POOL INFORMATION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE EXISTING FEATURES DISTURBED BY THE CONSTRUCTION OF THIS CONTRACT TO EXISTING CONDITION OR BETTER, AS DETERMINED BY THE ENGINEER.
  - THE ENGINEER WHOSE SEAL APPEARS HEREON IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND, THEREFORE, ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION PRACTICES, PROCEDURES, AND RESULTS THEREFROM.
  - THE ENGINEER SHALL NOT BE HELD RESPONSIBLE OR HELD ACCOUNTABLE FOR THE INTEGRITY OF ANY STRUCTURES CONSTRUCTED OR UNDER CONSTRUCTION PRIOR TO THE APPROVAL OF THESE PLANS.

- GENERAL EROSION CONTROL NOTES
- THE APPLICANT SHALL BE REQUIRED TO CLEAN ROADWAYS AND EXISTING DOWNSTREAM DRAINAGE UTILITIES FROM ALL SILTATION AND CONSTRUCTION DEBRIS AS REQUIRED, AND UPON COMPLETION OF WORK.
  - ALL PLANS SHOULD FULLY INCORPORATE THE APPROPRIATE RECOMMENDATIONS FROM NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, DATED AUGUST 2005, OR THE MOST CURRENT VERSION OR ITS SUCCESSOR. THE PLAN AND ITS IMPLEMENTATION SHALL BE SUBJECT TO THE APPROVAL OF THE TOWN ENGINEER.
  - THE MEASURES FOR THE CONTROL OF EROSION AND SEDIMENTATION ARE UNDERTAKEN CONSISTENT WITH THE NEW YORK STATE'S STORMWATER DESIGN MANUAL, DATED AUGUST 2004, OR THE MOST CURRENT VERSION OR ITS SUCCESSOR, SATISFACTORY TO THE TOWN.
  - ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE AND PROPERTY DISPOSED OF AT AN APPROPRIATE FACILITY.
  - ALL PROPOSED DRAINAGE IMPROVEMENTS SHALL BE 10' MINIMUM FROM ALL PROPERTY LINES.

- CONSTRUCTION SEQUENCE
- STAKE THE PROPOSED LIMIT OF DISTURBANCE.
  - INSTALL PERIMETER EROSION CONTROLS DOWNGRADE OF ALL PROPOSED DISTURBANCE.
  - ROUGH GRADE THE PROJECT AREA.
  - INSTALL POOL AND PATIO
  - INSTALL POOL EQUIPMENT
  - INSTALL POOL FENCE
  - STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, GRASS SEED AND MULCH.
  - REMOVE THE EROSION CONTROLS ONCE THE DISTURBANCE IS STABILIZED.

LEGEND	
	PROPOSED 2' CONTOUR
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED SILT FENCE
	PROPOSED POOL FENCE
	PROPOSED SOIL STOCKPILE

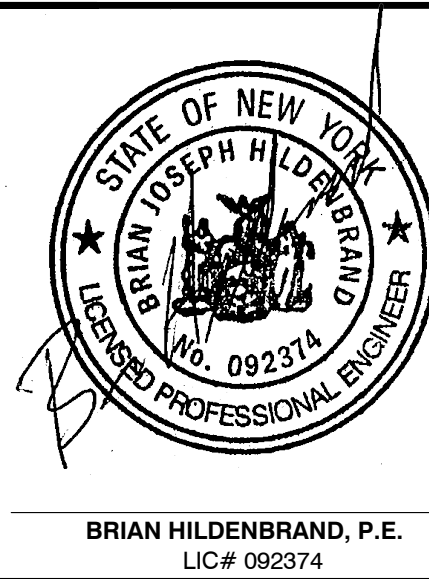
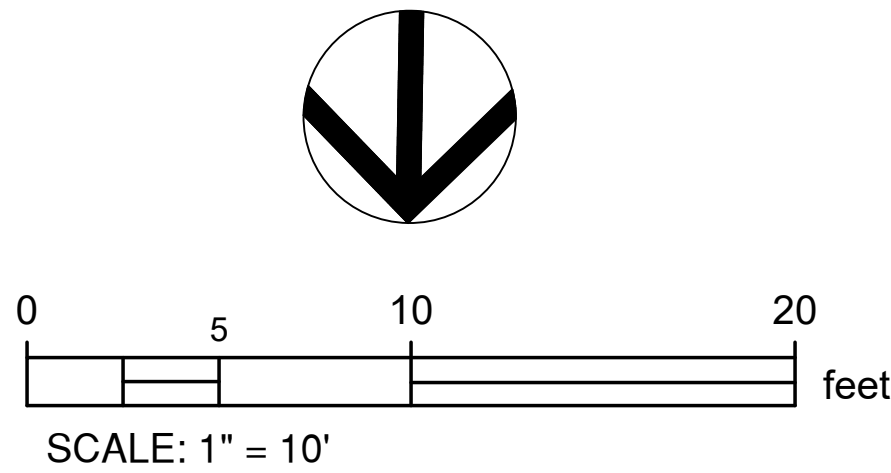
GRADING AND DRAINAGE PLAN

SCALE: 1" = 10'

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

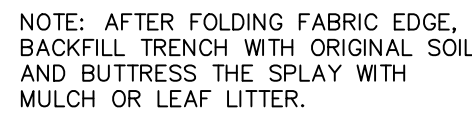
STORMWATER FIELD TESTING INFORMATION	
DEEP TEST HOLE DESCRIPTION	PERCOLATION RATE (MIN/IN) (SEE NOTE)
TP-1: 0"-4" TOPSOIL; 4" TO 72" SANDY LOAM WITH FINE SANDS AND GRAVEL; NO GROUNDWATER OR ROCK ENCOUNTERED	PT-1 = 3 MIN/INCH PT-2 = 3 MIN/INCH (DESIGN RATE = 3 MIN/INCH)
TP-2: 0"-4" TOPSOIL; 4" TO 72" SANDY LOAM WITH FINE SANDS AND GRAVEL; NO GROUNDWATER OR ROCK ENCOUNTERED	

TABLE NOTES:  
1. DEEP & PERCOLATION TESTING WAS PERFORMED BY GREG MERCURIO, RLA ON AUGUST 16, 2021 AND WITNESSED BY KELLARD SESSIONS CONSULTING



REVISED: NOVEMBER 30, 2021 - PER TOWN COMMENTS	
PROJECT: 10 LAMBERT RIDGE ROAD TOWN OF LEWISBORO, WESTCHESTER COUNTY, NEW YORK	
DRAWING: STORMWATER MANAGEMENT PLAN	
DATE: 10-25-2021	DRAWING NO.: C.100
PROJECT NO.: -	
SCALE: AS SHOWN	
DRAWN BY: B.J.H.	
SHEET: 2	3



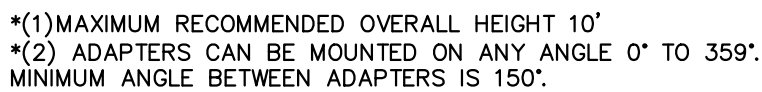


**SCALE: N.T.S.**



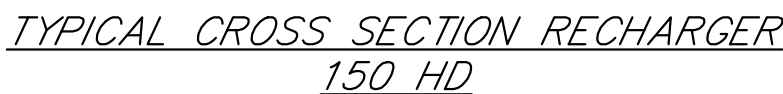
1. AREA CHOSEN FOR STOCKPIILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPIILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILTFENCE.

**SCALE: N.T.S.**



MODEL # 2808 AG  
MANUFACTURED BY NYLOPLAST  
OR APPROVED EQUAL.

**SCALE: N.T.S.**



**NOTE:**  
DETAIL FOR TYPICAL INSTALLATION ONLY, REFER TO PLAN FOR LAYOUT & QUANTITY

**SCALE: N.T.S.**

GENERAL SITE EROSION CONTROL INSPECTION AND MAINTENANCE TABLE			
MAINTENANCE ITEM	FREQUENCY	DESCRIPTION OF INSPECTION PARAMETERS	DESCRIPTION OF REMEDY PROCEDURES
SITE STRUCTURES	ANNUAL & AFTER MAJOR STORMS	--ACCUMULATED SEDIMENT IN CATCH BASIN SUMPS --ACCUMULATED DEBRIS AND LITTER --DAMAGE OR FATIGUE OF STORM STRUCTURES OR ASSOC. COMPONENTS --ACCUMULATION OF POLLUTANTS, INCLUDING OILS OR GREASE, IN CATCH BASIN SUMPS	--REMOVE --REMOVE --REPAIR AND/OR REPLACE, AS NECESSARY --REMOVE POLLUTANTS FROM CATCH BASINS. REMOVE AND/OR REPAIR POLLUTANT SOURCE
PAVEMENT	BIANNUAL/ANNUAL	--ACCUMULATED SEDIMENT IN PAVED AREAS --ACCUMULATED DEBRIS AND LITTER	--REMOVE (SWEEP MIN 2 TIMES/YEAR) --REMOVE
EMBANKMENTS	ANNUAL	--DIFFERENTIAL SETTLEMENT OF EMBANKMENTS --EMBANKMENT EROSION --ANIMAL BURROWS --CRACKING, BULGING, OR SLIDING OF EMBANKMENT	--STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS --STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS --REMOVE --STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS
LAWN AND LANDSCAPED AREAS	ANNUAL	--VEGETATION: 80% COVERAGE + LESS THAN 15% INVASIVE PLANT SPECIES --UNAUTHORIZED PLANTINGS --UNDESIRABLE VEGETATIVE GROWTH --ACCUMULATED DEBRIS AND LITTER	--RESTORE TO ORIGINAL SPECIFICATIONS AS PER PLANTING PLAN --REMOVE --MOW A MIN. OF 3 TIMES A YEAR. MAY INCREASE FOR AESTHETIC REASONS. --REMOVE
WINTER MAINTENANCE	MONTHLY	--ACCUMULATION OF SNOW AND ICE ON CATCH BASINS, INLET AND OUTLET STRUCTURES, AND END SECTIONS --STOCK PILED SNOW NEAR INLETS AND OUTLETS --REMAINING DEICING MATERIALS	--REMOVE  --REMOVE --REMOVE IN EARLY SPRING BY SWEEPING

THIS SWPPP AND ACCOMPANYING PROJECT PLANS IDENTIFY BOTH TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, WHICH HAVE BEEN DESIGNED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, LATEST REVISION. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED DURING CONSTRUCTION TO MINIMIZE SOIL EROSION AND CONTROL SEDIMENT TRANSPORT OFF-SITE. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED AFTER CONSTRUCTION TO CONTROL THE QUALITY AND QUANTITY OF STORMWATER RUNOFF FROM THE DEVELOPED SITE.

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES TO BE UTILIZED DURING CONSTRUCTION GENERALLY INCLUDE THE FOLLOWING:

1. STABILIZED CONSTRUCTION ENTRANCE PRIOR TO CONSTRUCTION, STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED TO REDUCE THE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS. CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE ENTRANCE SHALL BE MAINTAINED IN GOOD CONDITION, WHICH WILL INCLUDE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY OR STREETS. WHEN NECESSARY, THE FULL DEPTH OF AN ADDITIONAL AGGREGATE ATOP THE FILTER FABRIC SHALL BE DONE TO ASSURE THE MINIMUM THICKNESS IS MAINTAINED. ALL SEDIMENTS AND SOILS SPILLED, DROPPED, OR WASHED ONTO THE PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH SUBSTANTIAL RAINFALL EVENT.
2. DUST CONTROL - WATER TRUCKS SHALL BE USED, AS NEEDED, DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE GENERAL CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE OWNER/OPERATOR, AND IN COMPLIANCE WITH THE APPLICABLE LOCAL AND STATE DUST CONTROL REQUIREMENTS.
3. TEMPORARY SOIL STOCKPILE - MATERIALS, SUCH AS TOPSOIL, SHALL BE TEMPORARILY STOCKPILED (IF NECESSARY) ON THE SITE DURING THE CONSTRUCTION PROCESS. STOCKPILES SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE, WATER BODIES AND/OR COURSES, AND SHALL BE PROPERLY PROTECTED FROM EROSION BY A SURROUNDING SILT FENCE BARRIER OR HAY BALES WHEN LOCATED ON PAVED AREAS.
4. SILT FENCING - PRIOR TO THE INITIATION OF AND DURING CONSTRUCTION ACTIVITIES, SILT FENCING SHALL BE ESTABLISHED ALONG THE PERIMETER OF ALL AREAS TO BE DISTURBED AS A RESULT OF THE CONSTRUCTION WHICH LIE UP GRADIENT OF WATER COURSES OR ADJACENT PROPERTIES. THESE BARRIERS MAY BE EXTENDED AND ENCLOSED ADEQUATE PROTECTION OF ADJACENT LANDS. CLEARING AND GRUBBING SHALL BE PERFORMED ONLY AFTER THE NECESSARY FOR THE INSTALLATION OF THE SEDIMENT CONTROL BARRIER. TO ENSURE EFFECTIVENESS OF THE SILT FENCING, DAILY INSPECTIONS AND INSPECTIONS IMMEDIATELY AFTER SIGNIFICANT STORM EVENTS SHALL BE PERFORMED BY SITE PERSONNEL. MAINTENANCE OF THE FENCE SHALL BE PERFORMED AS NEEDED.
5. TEMPORARY SEEDING - WITHIN SEVEN DAYS AFTER CONSTRUCTION ACTIVITY CEASES ON ANY PARTICULAR AREA OF THE SITE, ALL DISTURBED AREAS WHERE THERE SHALL NOT BE CONSTRUCTION FOR LONGER THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED TO MINIMIZE EROSION AND SEDIMENT LOSS.
6. TEMPORARY SEDIMENT BASIN - A TEMPORARY SEDIMENT BASIN SHALL BE CONSTRUCTED TO INTERCEPT SEDIMENT LAZES RUNOFF, REDUCE THE AMOUNT OF SEDIMENT LEAVING THE DISTURBED AREAS, AND PROTECT DRAINAGE WAYS, PROPERTIES, AND RIGHTS-OF-WAY. PROJECTS THAT HAVE PROPOSED STORMWATER PONDS CAN BE USED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION. TEMPORARY SEDIMENT BASINS SHALL BE INSPECTED AT LEAST EVERY SEVEN CALENDAR DAYS. ALL DAMAGES CAUSED BY SOIL EROSION AND CONSTRUCTION EQUIPMENT SHALL BE REPAIRED UPON DISCOVERY. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN/TRAP WHEN IT REACHES 50 PERCENT OF THE DESIGN CAPACITY AND SHALL NOT EXCEED 50 PERCENT. SEDIMENT SHALL NOT BE PLACED DOWNSTREAM FROM THE EMBANKMENT, ADJACENT TO A STREAM, OR FLOODPLAIN.
7. DEWATERING - DEWATERING, IF REQUIRED, SHALL NOT BE DISCHARGED DIRECTLY INTO WETLANDS, WATER COURSES, WATER BODIES, AND STORM SEWER SYSTEMS. PROPER METHODS AND DEVICES SHALL BE UTILIZED TO THE EXTENT PERMITTED BY LAW, SUCH AS PUMPING WATER INTO TEMPORARY SEDIMENT BASINS, PROVIDING SURFACE PROTECTION AT THE INLET AND OUTLET OF PUMPS, FLOATING THE INTAKE OF THE PUMP, OR OTHER METHODS TO MINIMIZE AND RETAIN THE SUSPENDED SOLIDS.

PERMANENT EROSION AND SEDIMENT CONTROL MEASURES TO BE UTILIZED AFTER CONSTRUCTION GENERALLY INCLUDE THE FOLLOWING:

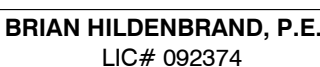
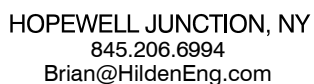
2. ESTABLISHMENT OF PERMANENT VEGETATION - DISTURBED AREAS THAT ARE NOT COVERED BY IMPERVIOUS SURFACES SHALL BE SEEDED IN ACCORDANCE WITH THE ACCOMPANYING PLANS. THE TYPE OF SEED, MULCH, AND MAINTENANCE MEASURES SHALL BE FOLLOWED. ALL AREAS AT FINAL GRADE SHALL BE SEEDED AND MULCHED WITHIN SEVEN (7) DAYS AFTER COMPLETION OF THE MAJOR CONSTRUCTION ACTIVITY. ALL SEEDED AREAS SHALL BE PROTECTED WITH MULCH AND A PROTECTIVE FIBER OR POLYMER MAT. VEGETATION SHALL BE ESTABLISHED ON ALL SOIL-DISTURBING ACTIVITIES. WHEN COMPLETED AND A UNIFORM, PERMANENT VEGETATIVE COVER WITH A DENSITY OF 80 PERCENT HAS BEEN ESTABLISHED OR EQUIVALENT STABILIZATION MEASURES (SUCH AS THE USE OF MULCHES OR GEOTEXTILES) HAVE BEEN EMPLOYED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES.
2. FINAL SEEDING AND PLANTING - FINAL SEEDING AND PLANTING SHALL BE INSTALLED AS SHOWN ON THE ACCOMPANYING PLANS. FINAL SEEDING AND PLANTING WILL HELP MINIMIZE EROSION AND SEDIMENT LOSS.
3. ROCK OUTLET PROTECTION - ROCK OUTLET PROTECTION SHALL BE INSTALLED AT THE LOCATIONS AS SHOWN ON THE ACCOMPANYING PLANS. THE INSTALLATION OF ROCK OUTLET PROTECTION WILL REDUCE THE DEPTH, VELOCITY, AND ENERGY OF WATER, SUCH THAT THE FLOW WILL NOT ERODE THE RECEIVING WATER COURSE OR WATER BODY.

SPECIFIC EROSION AND SEDIMENT CONTROL MEASURES, INSPECTION FREQUENCY, AND REMEDIATION PROCEDURES ARE PROVIDED IN THE SUBSEQUENT SECTIONS AND ON THE ACCOMPANYING PROJECT PLANS.

## POLLUTION PREVENTION CONTROLS

GOOD HOUSEKEEPING PRACTICES ARE DESIGNED TO MAINTAIN A CLEAN AND ORDERLY WORK ENVIRONMENT. GOOD HOUSEKEEPING MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS BY THOSE PARTIES INVOLVED WITH THE DIRECT CARE AND DEVELOPMENT OF THE SITE. THE FOLLOWING MEASURES SHOULD BE IMPLEMENTED TO CONTROL THE POSSIBLE EXPOSURE OF HARMFUL SUBSTANCES AND MATERIALS TO STORMWATER RUNOFF:

1. MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATION SHALL BE STOCKPILED AWAY FROM STORM DRAINAGE, WATER BODIES AND/OR WATERCOURSES AND SURROUNDED WITH ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES. SOIL STOCKPILE LOCATIONS SHALL BE EXPOSED NO LONGER THAN 14 DAYS BEFORE SEEDING.
2. EQUIPMENT MAINTENANCE AREAS SHALL BE PROTECTED FROM STORMWATER FLOWS AND SHALL BE SUPPLIED WITH APPROPRIATE WASTE RECEPTACLES FOR SPENT CHEMICALS, SOLVENTS, OILS, GREASES, GASOLINE, AND ANY POLLUTANTS THAT MIGHT CONTAMINATE THE SURROUNDING HABITAT AND/OR WATER SUPPLY. EQUIPMENT WASH-DOWN ZONES SHALL BE LOCATED WITHIN AREAS DRAINING TO SEDIMENT CONTROL DEVICES.
3. THE USE OF DETERGENTS FOR LARGE-SCALE (I.E., VEHICLES, BUILDINGS, PAVEMENT SURFACES, ETC.) WASHING IS PROHIBITED.
4. MATERIAL STORAGE LOCATIONS AND FACILITIES (I.E., COVERED STORAGE AREAS, STORAGE SHEDS, ETC.) SHALL BE LOCATED ONSITE AND SHALL BE STORED ACCORDING TO THE MANUFACTURER'S STANDARDS IN A DEDICATED STAGING AREA. CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER TOXIC MATERIALS MUST BE STORED IN WATERPROOF CONTAINERS. RUNOFF CONTAINING SUCH MATERIALS MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY.
5. HAZARDOUS SPILLS SHALL BE IMMEDIATELY CONTACTED TO PREVENT POLLUTANTS FROM ENTERING THE SURROUNDING HABITAT AND/OR WATER SUPPLY. SPILL KITS SHALL BE PROVIDED ONSITE AND SHALL BE DISPLAYED IN A PROMINENT LOCATION FOR EASE OF ACCESS AND USE. SPILLS GREATER THAN FIVE (5) GALLONS SHALL BE REPORTED TO THE INSYDE RESPONSE UNIT AT 1-800-457-7362. IN ADDITION, A RECORD OF THE INCIDENT(S) AND/OR NOTIFICATIONS SHALL BE DOCUMENTED AND ATTACHED TO THE SWPPP.
6. PORTABLE SANITARY WASTE FACILITIES SHALL BE PROVIDED ONSITE FOR WORKERS AND SHALL BE PROPERLY MAINTAINED.
7. DUMPSTERS AND/OR DEBRIS CONTAINERS SHALL BE LOCATED ONSITE AND SHALL BE OF ADEQUATE SIZE TO MANAGE RESPECTIVE MATERIALS. REGULAR COLLECTION AND DISPOSAL OF WASTES SHALL OCCUR AS REQUIRED.
8. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING. MATERIALS TO BE STORED SHALL BE STAGED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHALL BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED AND DISPOSED OF. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED AND/OR REPAIRED, SEEDED, AND MULCHED FOR FINAL STABILIZATION.
9. NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION, WHICH DISCHARGES FROM THE SITE, MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE. IT CAN BE RETAINED IN THE PONDS UNTIL IT INFILTRATES AND EVAPORATES.



REVISÉ: NOVEMBER 30, 2021 - PER TOWN COMMENTS

PROJECT:

10 LAMBERT RIDGE ROAD  
OF LEWISBORO, WESTCHESTER COUNTY, NEW YORK

DRAWING

# C.200

DATE : 10-25-2021

DECEMBER 1966

PROJECT NO.: --

SCALE: AS SHOWN

DRAWING NO.

SHEET:

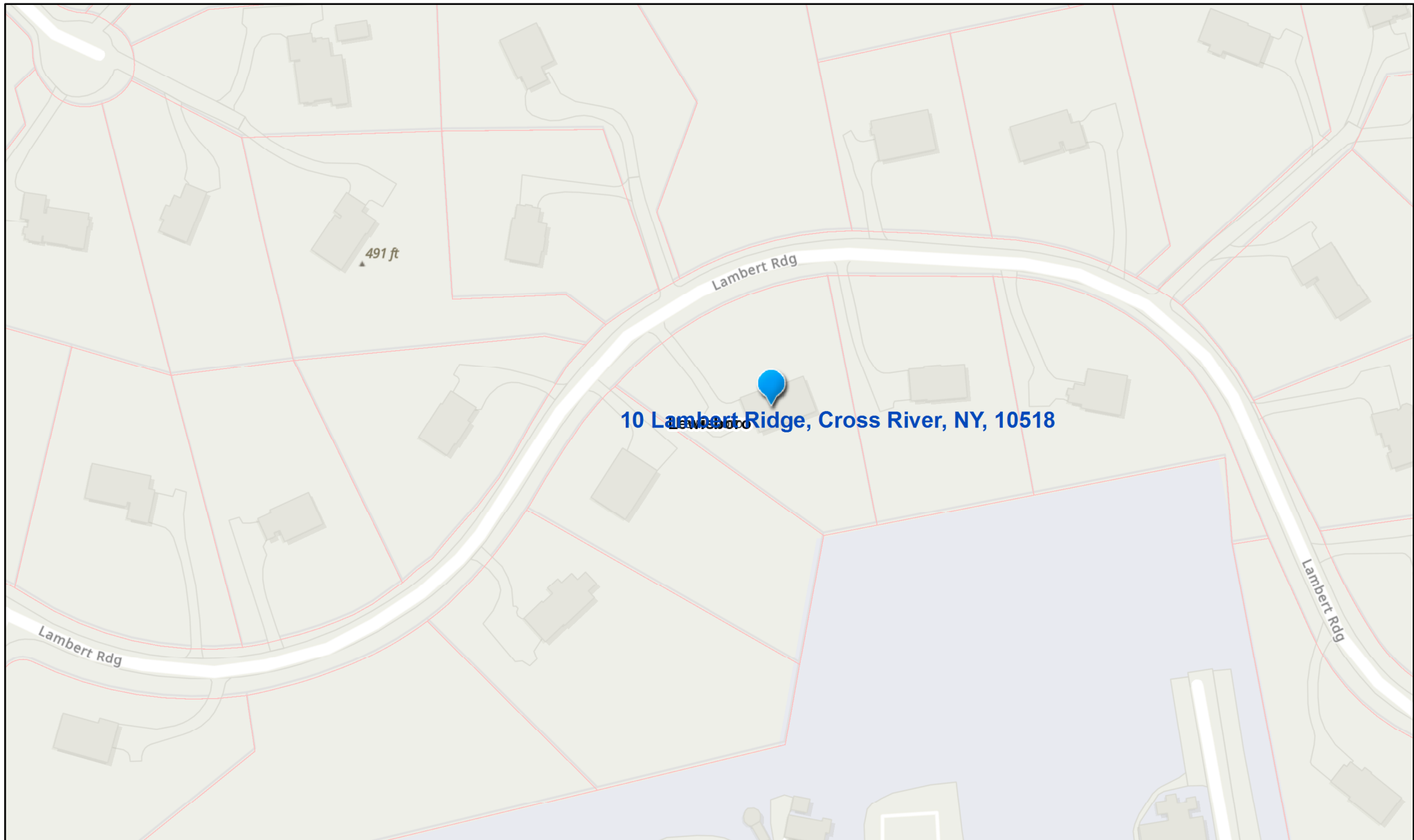
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Index: C00-101



# Mapping Westchester County



11/29/2021, 3:28:48 PM

 Municipal Boundaries

1:2,257

0 105 210 420  
ft



**GIS**  
http://giswww.westchestergov.com  
Michaelian Office Building  
148 Martine Avenue Rm 214  
White Plains, New York 10601





# No Mow Lawn Fact Sheet



## CONTENT

Introduction	p.1
Comparison of Turf Types	p.2
Grass Varieties in No Mow	p.2
Growing Conditions & Requirements	p.3
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Site Preparing and Seeding	p.5
Maintaining a No Mow Lawn	p.6

Prairie Nursery's No Mow Lawn Seed Mix is a specially designed blend of six slow-growing fine fescue grasses. These cool season grasses are recommended for planting in northern climates of the United States and Canada (above approximately 37 degrees North Latitude). No Mow is also adapted to the coastal areas of the Pacific Northwest, the cooler mountain climates in the east-central states, and in the western mountains from the mid-elevation aspen woodlands to just below timberline.



The blend of fine fescue grasses in No Mow combines the characteristics of each variety to create a turf that:

- Grows to form a dense sod
- Thrives in full sun to partial shade
- Does not require fertilization
- Needs minimal watering (only during extended dry periods)
- Resists most turf grasses diseases
- Biologically reduces weed growth
- Reduces lawn maintenance dramatically
- Serves as an ecological alternative to traditional high maintenance lawns

No Mow thrives in full sun to partial shade on any reasonably well-drained soil, and is particularly well suited to growing on dry, sandy or rocky soils with low Nitrogen levels. Nitrogen fertilizer stimulates leafy growth, which only increases the need for mowing. The application of excessive nitrogen fertilizer can actually damage fine fescue grasses, so minimal or no fertilization is usually best. No Mow is not recommended for damp soils, or heavy clay soils with less than four inches of rich loamy topsoil.



Some of the fine fescue grasses in the No Mow Lawn Mix have been documented to possess allelopathic properties, in which the grasses produce compounds that prevent or retard the growth other plants and weeds. This “natural herbicide” makes No Mow particularly resistant to invasion by other herbaceous plants that often plague other types of turf.

## COMPARISON OF COMMON COOL SEASON TURF TYPES

TURF TYPE	DROUGHT TOLERANCE	NITROGEN REQUIREMENT	SHADE TOLERANCE	COLD TOLERANCE	MOWING FREQUENCY	TRAFFIC TOLERANCE	THATCH FORMATION
NO MOW	Excellent	Low	Very Good	Very Good	Low	Fair	Medium
KENTUCKY BLUEGRASS	Good	Medium	Fair to Good	Very Good	Low to Medium	Good	Medium to High
TURF TYPE PERENNIAL RYE	Very Good	Medium to High	Fair to Good	Fair to Good	High	Excellent	None
IMPROVED TALL FESCUE	Excellent	Medium	Good	Good	Medium	Very Good	Low to None

## Grass Varieties in No Mow Lawn Mix

No Mow is a blend of bunch-forming and Creeping fescues derived from species that are native to the Northern hemisphere. The bunch grasses are exceptionally drought resistant, thrive in low nitrogen soils, and have moderate tolerance to heavy foot traffic. The creeping fescues spread gradually by underground rhizomes to help fill in between the bunch grasses to create a weed-resistant sod. The creeping fescues also help to fill in areas that may experience turf damage.

**Hard Fescue (*Festuca brevipila*).** Two different varieties of Hard Fescue are generally used in the No Mow blend. These “bunch” grasses are among the most heat and drought tolerant of the fine fescues. They grow slowly, thus reducing or eliminating the need for regular mowing. The Hard Fescues are the most tolerant of heavy foot traffic of the fine fescues. They do not tolerate close mowing (less than 3 inches).

**Sheep Fescue (*Festuca ovina*).** Another “bunch” grass, Sheep Fescue is extremely drought tolerant and can subsist on a diet of almost no Nitrogen. It is moderately wear tolerant, but will not perform well if closely mowed (less than 3 inches). Both Sheep Fescue and the Hard Fescues are slow growing and require little or no fertilization, making them ideal for low maintenance lawns.

**Chewings Fescue (*Festuca rubra* subs. *fallax*).** This bunch grass is among the deepest green of the fine fescues and makes a very high quality turf. It is the most competitive of the fine fescues, helping to crowd out weeds. Chewings Fescue thrives in acid soils, such as those found under conifers and oaks. Although more tolerant of close mowing than the other fine fescues, it does not stand up well to heavy traffic, and is prone to developing a thatch layer.

**Red Fescue (*Festuca rubra*).** This is one of the two creeping type fescues in the No Mow Lawn Mix. Similar in appearance and growth from to the “bunching” fine fescues (above), the “creepers” are also drought resistant and require little nitrogen. These “creepers” help to bind the bunch grasses together to forming a dense sod. Creeping fescues do not form a thick thatch layer. However, they are not tolerant to heavy traffic and do not respond well to close mowing. Red fescue is one of the most shade tolerant turf grasses. It also possesses a high salt tolerance that rivals Alkaligrass (*Puccinellia distans*, var. *Fults*), a turfgrass that is commonly planted in areas subject to high salt levels.



**Creeping Red Fescue (*Festuca rubra* var. *rubra*).** Similar to Red Fescue, Creeping Red Fescue is the second creeping variety in the No Mow mix, and helps fill in damaged areas of turf. Creeping Red Fescue is the most tolerant of the fescues in the No Mow lawn mix, and can be cut at a height of two inches, as compared to four inches for most of the other fescue varieties. However, this is only one component of the No Mow lawn mix, so your fescue lawn should never be mowed lower than three to four inches.

The combination of these six complementary varieties of fine fescues makes No Mow Lawn Seed Mix a versatile and adaptable blend that is an excellent choice for a wide variety of planting situations and applications.

## Growing Conditions & Requirements

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### *Growing No Mow Lawn in Shade*

No Mow will grow in full sun to partially shaded locations. One of the most shade tolerant turf blends available, it thrives in light to moderate shade and does particularly well under individual trees that receive indirect light from the sides. No Mow is an excellent choice for around surface-rooted trees that leave little available soil for turf. It thrives in woodlands composed of oak, hickory, elm, ash, birch, white pine, and other “open canopy” tree species that allow filtered light to reach the ground level. No Mow will grow under spruce trees that receive light around their edges, provided that the surface layer of needles and duff are removed to expose the mineral soil prior to seeding. When planted under deciduous trees the leaves must be raked off or thoroughly chopped up with a mulching mower after autumn leaf fall to prevent smothering of the turf grasses over winter. No Mow will not perform well in deep shade, as occurs under Sugar Maples and dense stands of conifers.

### **Growing No Mow Under Black Walnut Trees**

No Mow is capable of thriving under the shade of black walnut trees. However, the leaves and nuts must be removed in fall, to prevent damage by high levels of the plant toxin produced by walnuts called Juglone. Black walnuts, like oaks and hickories, cast moderate shade at the ground level, creating ideal growing conditions for the shade-tolerant fine fescue grasses.

### *Soil Conditions*

No Mow thrives on any reasonably well-drained soil, and is particularly well suited to growing on dry, sandy or rocky soils with low Nitrogen levels. No Mow is not recommended for consistently damp soils, or heavy clay soils.

### *Rainfall Requirements*

No Mow does best in climates that receive annual precipitation of 25 inches or more, with at least half arriving during the growing season. In drier climates with less than 25 inches of rain, supplemental irrigation can be supplied during dry periods in summer. No Mow is more drought tolerant than Kentucky Bluegrass, making it an excellent alternative for cool, arid climates. While it is an extremely drought tolerant grass blend, No Mow will not survive extended droughts.

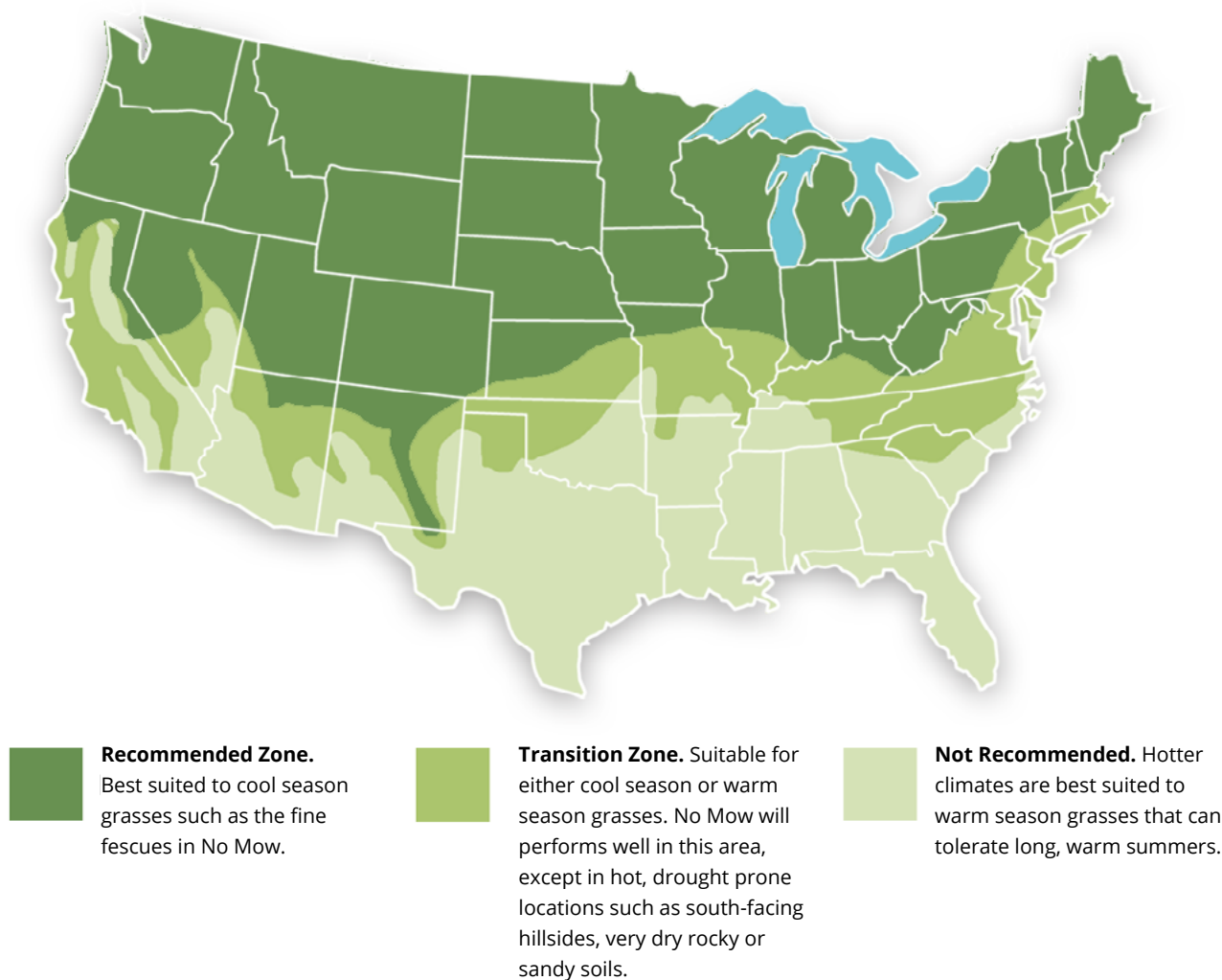
### *Soil pH Range (Acidity – Alkalinity)*

The fine fescues in the No Mow Lawn Mix grow well in soils within a pH range of between 5.0 and 8.0. The optimum pH range for these grasses is between 5.5 and 6.5, but will thrive in a wide range of soil acidity and alkalinity.



## No Mow Planting Zones

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## When to Use No Mow with Annual Rye

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No Mow with Annual Rye is intended for use only in areas that are subject to erosion and require rapid soil stabilization. The annual rye germinates within a few days after the first rainfall or watering event, and grows rapidly to help hold the soil in place. On steep slopes, an erosion blanket should be applied over the seeded area and anchored with stakes to prevent soil erosion and loss of seed during rain storms. *When using an erosion blanket to protect the slope, the use of annual rye formulation is not necessary.* The standard No Mow mix (without annual rye) should be used on level areas that are not subject to erosion.

Annual rye can present a problem in warmer growing zones that do not experience cold, winter temperatures. Annual rye is normally killed by subzero temperatures in USDA Hardiness Zones 2–4. However in warmer zones (5–7) annual rye will typically survive the winter and return in spring to compete heavily with the fine fescue grasses in the No Mow mix. In severe cases, the annual rye can outcompete the fine fescues and render the planting a failure. If a nurse crop is required in USDA Zones 5–7, oats can be seeded with the regular No Mow Lawn Mix at a rate of 64 lbs per acre (1.5 lbs per 1000 sq. ft.) in spring and 128 lbs per acre (3.0 lbs per 1000 sq. ft.) in fall. The oats can be mowed to keep it short, and will die over the winter when seeded in the fall.



# Preparing the Site and Seeding Your No Mow Lawn

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## *Site Preparation*

Prior to seeding, all the existing vegetation must be completely eliminated. If renovating or converting an existing lawn, the grasses and weeds on the site must be killed or removed before planting. This can be accomplished by a variety of methods:

- Spraying with a glyphosate herbicide (such as "Roundup")
- Smothering with black plastic, newspapers, cardboard, old cardboard, etc
- Repeated cultivation over a multi-month period (not recommended for erodible sites)
- Removing the turf with a sod cutter (this method will not kill tap-rooted weeds) Areas such as abandoned fields that occupied by perennial weeds will require one to two years of site preparation in order to completely kill the existing weeds and reduce the weed seeds that are harbored in the soil. The most effective method to accomplish this is repeated applications of glyphosate herbicide every six to eight weeks during the growing season (three to four time per year). This will eventually kill the existing vegetation, as well as many of the weed seeds in the soil after they germinate.

An alternative to herbicides is smothering the soil or repeatedly tilling the soil for one to two years. However these two methods do not reduce the weed seed populations in the soil. Cutting the sod and removing it is not recommended for abandoned fields, since this does not remove deep-rooted or rhizomatous perennial weeds. They will likely re-sprout and re-infest the newly seeded No Mow planting.

For more information on site preparation and other planting information, please refer to our publication entitled No Mow Seeding Instructions.

## *Recommended No Mow Seeding Rates*

### **For Lawns:**

5 pounds per 1000 square feet - or - 220 pounds per acre

### **For Low Maintenance Fields, Orchards, etc:**

2½ pounds per 1000 square feet - or - 110 pounds per acre

Areas that are intended to be low maintenance fields rather than lawns can be seeded at one half the normal lawn seeding rate. The No Mow turf will take longer to develop at this lower seeding rate, but will typically fill in to form a sod within one full year. **Germination:** No Mow seed will generally germinate within 10 – 14 days after the first watering or rainfall event.

## *Seeding Dates*

The optimal window for seeding No Mow is between late August 20 and October 20. Cool season grasses germinate well during the cooler weather of late summer and early fall, while most weeds germinate in spring and early summer. By the following spring the fescue grasses are in control, and leave little room for the germination of weed seeds in the soil. Cool season lawns that are seeded in fall experiences markedly less weed competition than spring seedings, mature faster, and should form a sod by the end of the following spring.

No Mow can also be seeded in early to mid-spring, between March 15 and May 15, but these seedings will experience greater weed competition and usually require more watering as the temperatures rise going into summer. Development of the turf is slower than with fall seedings due to increased competition from weeds and slower growth during the heat of summer.



## Seeding Methods

No Mow can be seeded by various equipment, including:

- Hand seeding (for small areas only)
- Push-type grass and fertilizer spreader
- Over the shoulder hand-cranked whirlybird type seeder
- Turf slit-seeder
- Tractor mounted broadcast seeder, such as a “Brillion” seeder
- Tractor mounted slit seeder
- Hydro-seeder

When seeding by hand, with a push type spreader, or whirlybird seeder, the seed should be raked into the soil lightly and then rolled with a roller to ensure firm seed to soil contact. Covering with clean, weed-free straw (such as winter wheat, oat, or rye straw) will help retain soil moisture and improve germination. Erodible slopes should be covered with a light straw or excelsior erosion blanket and staked into the ground to hold it in place.

### No Till Seeding Tip for Fall Plantings

No Mow can be seeded in the fall without tilling the soil, provided that the seedbed is smooth and level. The No Mow seed can be spread using hand equipment or mechanical seeder directly into dead sod in the fall that has been completely killed using glyphosate herbicides.

The seeded area must be kept watered regularly, usually every morning for about 15 to 20 minutes. Regular watering is required to maintain soil moisture at the soil surface where the seed is germinating.

The area should green up in about two weeks as the fescue seedlings begin to appear, at which point watering can be reduced to once every three days (provided cool fall weather prevails and the soil does not dry out rapidly). This simple method typically yields an excellent stand of No Mow turf with a minimum of work. It is particularly well suited to seeding on slopes where soil tillage can lead to erosion. If seeding into a thick, dead sod on a slope, there is no need to apply an erosion blanket, since the roots of the dead plants will hold the soil in place while the new No Mow seedlings develop and stabilize the soil.

## Maintaining a No Mow Lawn

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### Watering

Newly seeded No Mow plantings that have been mulched with straw or protected with an erosion blanket should be watered every two to three days for two weeks to encourage germination. Plantings that are not covered with straw mulch or an erosion blanket should be watered every one to two days (or whenever the soil dries out). Fescue grasses generally germinate in ten days under good growing conditions, and new plantings usually “green up” in about two weeks as the new seedlings become visible. Once the seedlings are evident, watering can be reduced to twice a week, unless the weather is hot and dry and necessitates more frequent watering. Once the new grass seedlings are one half inch to one inch tall, watering can be discontinued, except under hot dry conditions.

An established No Mow lawn requires no additional watering, except during extended dry periods in summer. Occasional, deep watering once a week or so provides moisture to the lower roots, and is far superior to frequent, shallow watering. Water before the grass begins to turn brown. Once it turns brown it has entered



dormancy, and all the water in the world will not green it up. Non-irrigated No Mow lawns that turn brown during summer drought will typically green up when cool, moist weather returns in late summer and early fall.

## *Fertilization*

We do not recommend using fertilizers on No Mow. The use of lawn fertilizers that contain phosphorus are not allowed in many communities and near lakes and streams, due to the negative effects on water quality and algae blooms. Do not apply fertilizers that are high in Nitrogen. Fine fescue grasses require only a bare minimum of Nitrogen. Application of nitrogen can damage fine fescue turf, and is strongly discouraged.

### **We offer the following tips and information about soil amendment:**

1. Always test your soil before adding soil amendments. In most cases, the soil already has sufficient nutrients to support a fescue lawn. The addition of any fertilizer in such cases is unnecessary and only increases the pollutants in water runoff.
2. The best time to conduct a soil nutrient test is in late summer or early fall (late August to early September). This provides a good estimate of the soil nutrient conditions in advance of fall fertilizing.
3. Fall is the best time to apply fertilizer to lawns composed of cool season grasses, since these grasses have a strong late season growth spurt that builds their root systems for the following year. Fertilizer should not be applied in summer, as cool season grasses typically enter a dormant period and do not take up nutrients efficiently.
4. Loamy and sandy loam soils seldom, if ever, require fertilizing. However, the first step in amending sandy soils is to check the pH to see if liming is necessary. Lime is essential in facilitating the availability of nutrients in the soil. Without first correcting the pH, the addition of any fertilizer is a waste of time.
5. Fine fescues can sometimes benefit from the addition of phosphorus and potassium in early fall, but only if your soil is low in these nutrients. Acid soils can benefit from fall-applied lime. Highly alkaline soils respond well when elemental sulfur is applied in fall to reduce the alkalinity of the soil.
6. A simple soil test for the following nutrients will determine what, if any additional nutrients your soil requires to grow a good lawn: pH (acidity – alkalinity), Calcium, Magnesium, Phosphorus, Potassium.

## *Mowing*

No Mow lawns may require occasional mowing during the first two years of establishment to control weeds, especially with lawns that are seeded in spring. Most annual weeds can be controlled by mowing at a height of four inches in the first growing season. If biennial weeds such as sweet clover, Queen Anne's Lace, burdock, etc. are a problem in the second year, they should be mowed at four inches just as they begin to flower, usually around mid June. This carefully timed mowing will kill most biennials. A few may survive the mowing, and should be mowed at four inches a second time when they re-bloom later in the season.

*Fine fescues do not tolerate close mowing, and should not be mowed any lower than 3.5 - 4 inches. Never remove more than one third of the total leaf material when mowing, or the turf will be damaged.*

### **Once a No Mow Lawn is Established, there are Several Mowing Options:**

**No Mowing:** This results in a turf with leaves six to eight inches in high, that will drape over one another to create a low-growing meadow effect. Seedheads, two feet tall, will appear in early to mid June. The seedstalks will typically fall to the ground by late summer, and the lawn will revert to its normal height of six to eight inches.

**Late Spring Mowing:** Many people mow their No Mow lawn once a year in June when the seedheads appear.



Mowing the grass to a height of four inches removes the seedheads and the turf will re-grow to its normal six to eight inch height.

**Fall Mowing:** This is a good option for No Mow Lawns under trees or in open woodlands. The fescue grasses usually will not form seedheads when grown in the shade, so June mowing is often not needed. However, leaves from deciduous trees must either be raked up and removed, or chopped up with a mulching mower in order to prevent smothering of the turf over winter. To encourage denser turf growth, No Mow lawns should be mowed to a height of one to two inches in late fall, usually around Thanksgiving. This removes dense leaf growth to expose the soil, thus encouraging higher stem density and a thicker turf the next year.

**Regular Mowing:** For a manicured, traditional lawn look, regular mowing can be done once a month, or anytime the grass reaches a height of five to six inches. *Fine fescues should not be mowed any lower than 3.5 - 4 inches.*

**Late Spring, plus Fall Mowing:** Mowing twice a year is a very popular maintenance strategy.

## De-Thatching

Fine fescues tend to develop a thatch layer near the soil surface over time. Thatch is composed of dead grass that does not completely decompose. It can smother the growth of new grass shoots, reducing the density of the lawn and creating “dead” spots. The thatch layer also tends to retain moisture at the ground level, which can encourage the growth of fungal diseases. Thatch development is encouraged by high levels of soil Nitrogen, and is more common in rich soils and lawns that are regularly fertilized. If thatch builds up to the point where dead grass is visible and the grass begins to thin out, the lawn should be de-thatched.

De-thatching can be accomplished using a mechanical de-thatcher or power rake, or by hand using a de-thatching rake. Set mechanical de-thatchers to a depth where they lift the thatch without digging up the soil. If the thatch is particularly thick, the de-thatcher will need to be set deeper, and some soil disturbance will likely occur. The thatch should be raked out of the lawn and removed (it makes excellent mulch for gardens, flower beds, etc). If open soil is visible following de-thatching, the affected areas should then be over-seeded with No Mow lawn mix.

### Timing of De-thatching is Very Important

Cool season fescue lawns should be de-thatched in mid-spring after the grass has greened up and begun active growth. De-thatching in early spring before the lawn begins to grow tends to encourage weeds.

## Aerating

Aerating, or “core aerating” encourages the flow of air and water down to the roots of turf grasses in heavy soils, such as silt loams, clay loams, and silty clay loams. While we do not recommend planting No Mow on heavy soils, it can be successfully established in these conditions in shady locations, where heat and moisture stress are reduced by the shade of trees. The soil under a lawn that receives moderate to heavy foot traffic tends to become compacted over time, and aeration every few years can help mitigate that compaction.



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P.O. Box 306, Westfield, WI 53964



**MEMORANDUM**

TO: Chairperson Janet Andersen and  
Members of Lewisboro Planning Board

CC: Ciorsdan Conran  
Judson Siebert, Esq.  
Joseph Angiello

FROM: Jan K. Johannessen, AICP  
Joseph M. Cermele, P.E., CFM  
Town Consulting Professionals 

DATE: December 16, 2021

RE: Wetland and Stormwater Permit  
Gardner Residence  
23 Waccabuc Road  
Section 21, Block 11360, Lot 12

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**PROJECT DESCRIPTION**

The subject property consists of ±5.968 acres of land and is located at 23 Waccabuc Road within the R-2 Zoning District. The subject property is developed with a single-family residence, driveway off Waccabuc Road, septic system and potable water well. The subject property contains wetlands that are jurisdictional to the New York State Department of Environmental Conservation (NYSDEC) and the Town of Lewisboro and the majority of the property consists of wetland and wetland buffer. The applicant is proposing an addition to the residence, deck, inground pool, pool terrace and related improvements, all of which are proposed within in the wetland buffer.

**SEQRA**

The proposed action has been preliminarily identified as a Type II Action and is therefore categorically exempt from the State Environmental Quality Review Act (SEQRA).



Chairperson Janet Andersen

December 16, 2021

Page 2 of 4

#### **REQUIRED APPROVALS**

1. A Wetland Activity Permit and Town Stormwater Permit is required from the Planning Board; a public hearing is required to be held on the Wetland Permit.
2. An Article 24 Freshwater Wetland Permit is required from the New York State Department of Environmental Conservation (NYSDEC).
3. The subject property is located within the NYC East of Hudson Watershed and proposed land disturbance exceeds 5,000 s.f. Coverage under New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) will be required.

#### **COMMENTS**

1. Site plans have been provided by both the project Architect and Engineer. For clarity and ease of coordination, it is recommended that one uniform set of plans be submitted for engineering review, as there are discrepancies between the site plans submitted.
2. The submitted Wetland Report must be revised to contain the information required, under Sections 217-5 and 6 of the Town's Wetland Ordinance.
3. As previously requested, the applicant shall develop a Wetland Mitigation Plan, which provides, at a minimum, mitigation at a ratio of 1:1 (for every s.f. of wetland or wetland buffer disturbance proposed, an equal or greater amount of mitigation shall be provided). Reference is made to the Town's mitigation guidelines provided in Chapter 217, Appendix B. While the plan notes a mitigation area of 8,600 s.f., no wetland mitigation is provided.
4. As previously requested, the plan shall illustrate and identify the location, specie type and diameter at breast height (dbh) of all trees with a dbh of 8 inches or greater and located within the limits of disturbance and 25 feet beyond. Indicate trees to be removed and/or protected.
5. As previously requested, the applicant shall perform deep and percolation soil testing in the vicinity of the proposed mitigation system to be witnessed by the Town Engineer. The test locations and results shall be shown on the plan. Contact this office to schedule the testing.
6. We note that the area of land disturbance is inconsistently referenced on the plans. The limits of disturbance shall be updated to include all proposed work. Proposed erosion controls must be located within the limits of disturbance.



Chairperson Janet Andersen

December 16, 2021

Page 3 of 4

7. As previously requested, the plan shall demonstrate compliance with all applicable Westchester County Department of Health (WCDH) separation distance requirements between septic, wells, stormwater, pools, etc.
8. As previously requested, identify the location for temporary construction access; illustrate a stabilized construction access drive and provide a detail.
9. As previously requested, the plan shall illustrate the location and connection of all existing and proposed roof drains and shall identify the size, slope, and material of all proposed drainage pipe. Provide details and include outlet protection.
10. Provide elevations associated with the proposed rain garden and bioretention garden details. The depth of the various layers shall be specified as opposed to a range. Coordinate between the details and the Stormwater Pollution Prevention Plan (SWPPP).
11. Provide spot grades for both rip-rap overflow spillway locations for the proposed rain garden and bio-retention garden.
12. Please add the overflow weir to the model for the rain garden.
13. Within the WQv calculations, the filter depth for the rain garden bioretention garden shall be 2½ feet, not 4 feet, as shown. It appears that the reference to “WQv Calculated” should read as “WQv Provided”.
14. Topography is taken from Westchester County GIS; as previously requested, survey topography shall be utilized for the design.
15. As previously requested, the names of the adjacent property owners and the location of any neighboring driveways, structures, buildings, wells, and septic areas shall appear on the plan.

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

**PLANS REVIEWED, PREPARED BY CROSS RIVER ARCHITECTS, LLC, DATED NOVEMBER 14, 2021:**

- Site Plan (Sheets S/1, S/2, S/3)



Chairperson Janet Andersen

December 16, 2021

Page 4 of 4

**PLANS REVIEWED, PREPARED BY ALP ENGINEERING, DATED NOVEMBER 29, 2021:**

- Stormwater Management Plan (C-101)
- Construction Details (C-111)

**DOCUMENTS REVIEWED:**

- Stormwater Management Report, prepared by Alan Pilch, P.E., dated November 28, 2021
- Wetland Delineation Report, prepared by Evans Associates, dated November 24, 2020
- Notice of Intent, dated November 29, 2021
- Letter, prepared by Cross River Architects, LLC, dated November 29, 2021

JKJ/dc

[https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16\\_LWPB\\_Gardner - 23 Waccabuc Road\\_Review Memo.docx](https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16_LWPB_Gardner - 23 Waccabuc Road_Review Memo.docx)



TO: The Town of Lewisboro Planning Board  
FROM: Lewisboro Conservation Advisory Council  
SUBJECT: Gardner Residence, 23 Waccabuc Road, Goldens Bridge, NY  
DATE: December 8, 2021

---

The Conservation Advisory Council (CAC) has reviewed the updated materials submitted by the applicant for the construction a pool, addition and an extension of the paved driveway. All or most of the additions are in a wetland buffer. There is a considerable addition of impervious area in these plans. Also, the proposed rain Gardens are very close to the wetland. At least three significant sized trees are planned to be removed.

The CAC would like to:

- Know if the pool and patio's size could be reduced to limit the encroachment into the wetland buffer.
- Know if the rain gardens could be moved further from the wetland.
- See a detailed mitigation plan
- Would like to see replacements trees of equal number or more as part of the mitigation for those trees that are being removed



CROSS  
RIVER  
ARCHITECTS,  
LLC

ROBERT J. EBERTS, R.A.  
PRINCIPAL ARCHITECT

DATE: 29 Nov 2021

TO: Janet Andersen Chairwoman  
Lewisboro Planning Board

FROM: Bob Eberts  
CROSS RIVER ARCHITECTS, LLC

RE: Gardner Residence Addition and Pool  
23 Waccabuc Rd, Goldens Bridge, NY 10526  
Wetland and Stormwater Permit

Board Members,

We are in receipt of the review memo from Kellard Sessions dated Nov 12, 2021. We are responding to those comments as follows:

1. The application has been submitted to the Building Inspector for his review.
2. We have attached the Wetland Delineation Report prepared by Beth Evans of Evans Associates.
3. Based on the revisions to the storm drainage design, the disturbance area has increased to 8569 sf. The 8600 sf Mitigation Area is now shown on S1. We will prepare a mitigation plan for review by this board if the mitigation area is accepted by the Planning board.
4. The pool patio was reduced nearly 600 sf in size. We did not reorient the pool because, with the surround, it is nearly square, so there would be little tangible change in the overall footprint.
5. NYSDEC has previously approved the Wetland map, but NYSDEC has misplaced their correspondence. They are still searching for it.
6. Drawings S1 and S2 now show the septic area and well protected by a temporary construction fence during construction.
7. The Owner has ordered an updated survey showing the trees as required.
8. A draft copy of the Notice of Intent form and the MS4 Acceptance form which have been filled out in paper form is attached. The eNOI and MS4 forms will be filed with the NYSDEC Division of Water upon approval of the SWPPP for the project.
9. The Stormwater Management Report have been included with this submission.
10. The Stormwater Permit Application has been included with this submission.
11. The Stormwater mitigation design calculations and details are included with this submission in the Stormwater Management Report.
12. Alan Pilch, the consulting engineer will contact Kellard Session to schedule the perc tests.
13. Drawing S1 now indicates that the disturbance limits will be staked in the field prior to construction.
14. Drawing S1 and S2 have been revised to indicate the WCHD 50' clearance between the stormwater management system and the well and the SSDS.
15. A sequence of operation has been added to drawing S1. It shows the removal of the deck prior to installing the pool. Under the existing deck is 3" of gravel. That gravel will serve as a construction entrance to the site.
16. The drawings have been revised to show the size, slope and material of all proposed drainage pipe and termination details.
17. We do not feel a footing drain is required because the addition and the existing house has a slab on grade. There is no existing footing drain.

PO Box 384  
19 NO. SALEM RD. 2<sup>nd</sup> FL.  
CROSS RIVER, NY 10518  
914.763.5887  
Email RJE@CRARCH.com



18. The scale on S1 was corrected.
19. The names of adjacent property Owners, structures and septic and wells will be shown within 100' of the disturbance area.
20. Drawing S1 shows the location of all existing utilities.
21. Details for proposed improvements have been added to the drawings.
22. The top and bottom wall elevations have been added to drawing S2.
23. Architectural Floor plans and elevations are included with this submission.
24. The Owner has contracted with a surveyor to provide topo information.
25. A copy of the deed is attached to this application.

Please review and let me know if you have any comments.  
Thanks, as always, for your help.

CC: Todd and Laura Gardner

Attachments:

Drawing SP1 – 3

Drawing C101

Drawing C111

Drawings A1 – A8

Wetland Delineation Report

Draft copy of Notice of Intent,

Draft copy of MS4 Acceptance Form

Stormwater Management Report

Stormwater Permit Application

Deed



SEQUENCE OF CONSTRUCTION

1. NO WORK SHALL BEGIN ON SITE UNTIL A BUILDING PERMIT FROM THE TOWN OF LEWISBORO BUILDING DEPT. HAS BEEN ISSUED AND POSTED ON SITE. CALL 811 CALL BEFORE YOU DIG. MAP ALL UNDERGROUND UTILITIES IN AREA OF DISTURBANCE.
2. EROSION CONTROL WORK AS DESCRIBED IN THE APPROVED PLANS SHALL BE IN PLACE PRIOR TO DISTURBANCE OF ANY EARTH.
3. INSTALL ALL NECESSARY TEMPORARY BARRICADES AND FENCING FOR PROTECTION OF THE SEPTIC SYSTEM AND WELL. PROTECT ALL LANDSCAPING TO REMAIN IN THE AREA OF DISTURBANCE.
4. LOCATE CONSTRUCTION DUMPSTER IN LOCATION APPROVED IN ADVANCE BY THE OWNER.
5. REMOVE TREES, SHRUBS AND OTHER PLANTINGS AS INDICATED IN THE DRAWINGS COMPLETELY FROM SITE IN ACCORDANCE WITH TOWN REGULATIONS.
6. REMOVE EXISTING DECK. LEAVE GRAVEL UNDER DECK IN PLACE TO ACT AS STABILIZED CONSTRUCTION ACCESS.
7. STRIP AND STOCKPILE ALL TOPSOIL FROM THE AREA OF THE POOL AND ADDITION AND STOCKPILE FOR LATER USE. SURROUND THE STOCKPILE WITH HAY BALES.
8. ROUGH GRADE THE SITE TO THE APPROXIMATE GRADES INDICATED ON THE DRAWINGS AND EXCAVATE FOR AND INSTALL THE POOL. REMOVE EXCESS FILL FROM SITE.
9. EXCAVATE FOR THE FOUNDATION OF THE BUILDING TO LEVELS INDICATED. BACKFILL AFTER FOUNDATION HAS BEEN COMPLETED.
10. EXCAVATE FOR AND INSTALL ALL STORM DRAINAGE BASINS, YARD DRAINS AND PIPING AS INDICATED ON THE DRAWINGS.
11. EXCAVATE FOR AND INSTALL ALL UNDERGROUND UTILITIES.
12. AFTER BUILDING IS FRAMED, INSTALL PATIOS, WALKS AND SECTION OF DRIVEWAY.
13. COMPLETE BUILDING CONSTRUCTION.
14. SPREAD STOCKPILED TOPSOIL TO DEPTHS INDICATED ON DRAWINGS. AFTER SIDING AND ROOFING HAS BEEN COMPLETED, INSTALL LANDSCAPING AND OTHER PLANTINGS PER DRAWINGS. WATER DAILY FOR A MINIMUM OF 60 DAYS.
15. CLEAN ALL STORM DRAINAGE BASINS AND YARD DRAINS.
16. BROOM CLEAN DRIVEWAY AND REMOVE ALL TEMPORARY CONSTRUCTION BARRIERS. REMOVE DUMPSTER.

ZONING COMPLIANCE TABLE

TAX LOT - SECTION 012, BLOCK 11360, LOT 12			
	REQUIRED	EXISTING	PROPOSED
MIN. LOT SIZE -	2 ACRES	259,960 sf	-
WIDTH	200'	900' +/-	-
YARDS			
FRONT (FROM CL STREET)	75'	77.1' +/-	77.1' +/-
FRONT (FROM PROPERTY LINE)	50'	52.1	52.1'
SIDE	40'	229.1' / 607.1'	229.1' / 597.1
REAR	50'	195.6'	186.9'
MAXIMUM BLDG HEIGHT	2 1/2 / 35'	2 / 28'	2 / 29'
MAX. BLDG COVERAGE	9% / 10,122 SF	0.73%, 1,902 SF	1.0%, 2,606 SF
WETLAND BUFFER	150' w/o PERMIT	47'	32.5'

BLDG COVERAGE CALCULATION

EXISTING RESIDENCE	1,756 SF
EXISTING SHED	146 SF
PROPOSED ADDITION	509 SF
PROPOSED DECK CANOPY	195 SF
TOTAL BLDG COVERAGE	2,606 SF

PROPOSED INCREASE IN IMPERVIOUS SURFACES

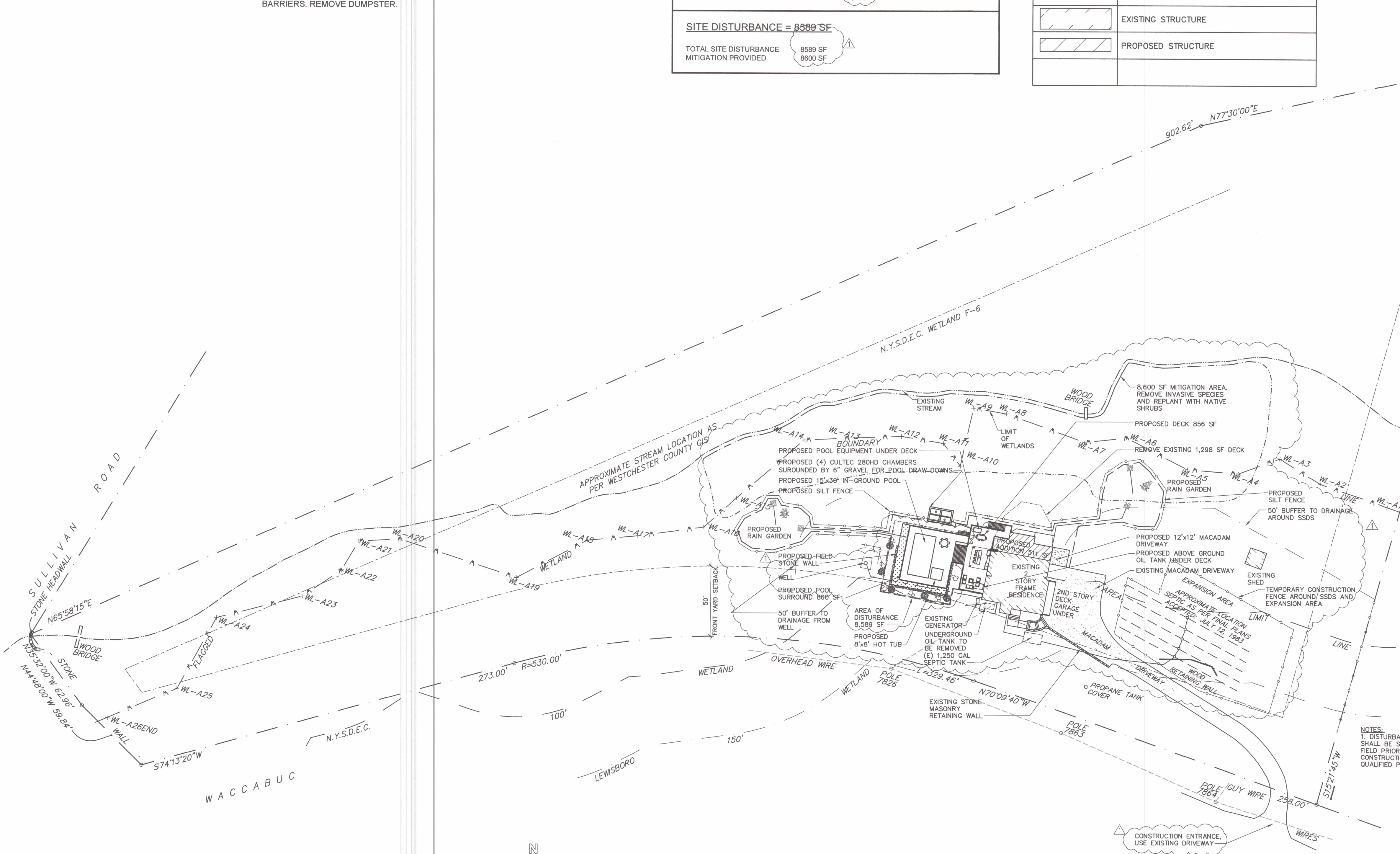
PROPOSED ADDITION	509 SF
PROPOSED DECK CANOPY	195 SF
ADDITIONAL DRIVEWAY	144 SF
POOL AND HOT TUB	514 SF (Not Incl In Drainage Calcs)
POOL SURROUND	860 SF
TOTAL INCREASE IN IMPERVIOUS SURFACES	2,222 SF

SITE DISTURBANCE = 8589 SF

TOTAL SITE DISTURBANCE	8589 SF
MITIGATION PROVIDED	8600 SF

SITE SYMBOL LIST

SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	SETBACK LINE
---380---	EXISTING CONTOUR
~~~~~	CENTER OF STREAM
W	WETLAND LIMIT
---	WETLAND BUFFER LINE
(380)	NEW CONTOUR
---	STONE WALL
---	LINE OF DISTURBANCE
---	SILT FENCE
---	POOL BARRIER FENCE
---	ITEM TO BE DEMOLISHED
---	EXISTING STRUCTURE
---	PROPOSED STRUCTURE



1 SITE PLAN

SCALE: 1" = 40'

SITE PLAN INFORMATION TAKEN FROM SURVEY BY:  
ROBERT S. JOHNSON DATED JANUARY 18, 2021  
NYSDEC FRESHWATER WETLAND BOUNDARY  
VALIDATION BY:  
BETH EVANS, FWS ON NOVEMBER 4, 2020  
CONTOUR INFORMATION FROM:  
WESTCHESTER GIS MAPS  
SSDS PER APPROVED PLANS DATED JULY 12, 1983

CROSS RIVER ARCHITECTS, LLC

ROBERT J. EBERTS R.A., PRINCIPAL

P.O. BOX 384  
19 NO. SALEM RD. 2nd FL.  
CROSS RIVER, N.Y. 10518  
914.763.6887  
FAX 914.763.8409

PROJECT  
GARDNER RESIDENCE  
23 WACCABUC ROAD  
GOLDENS BRIDGE, NEW YORK

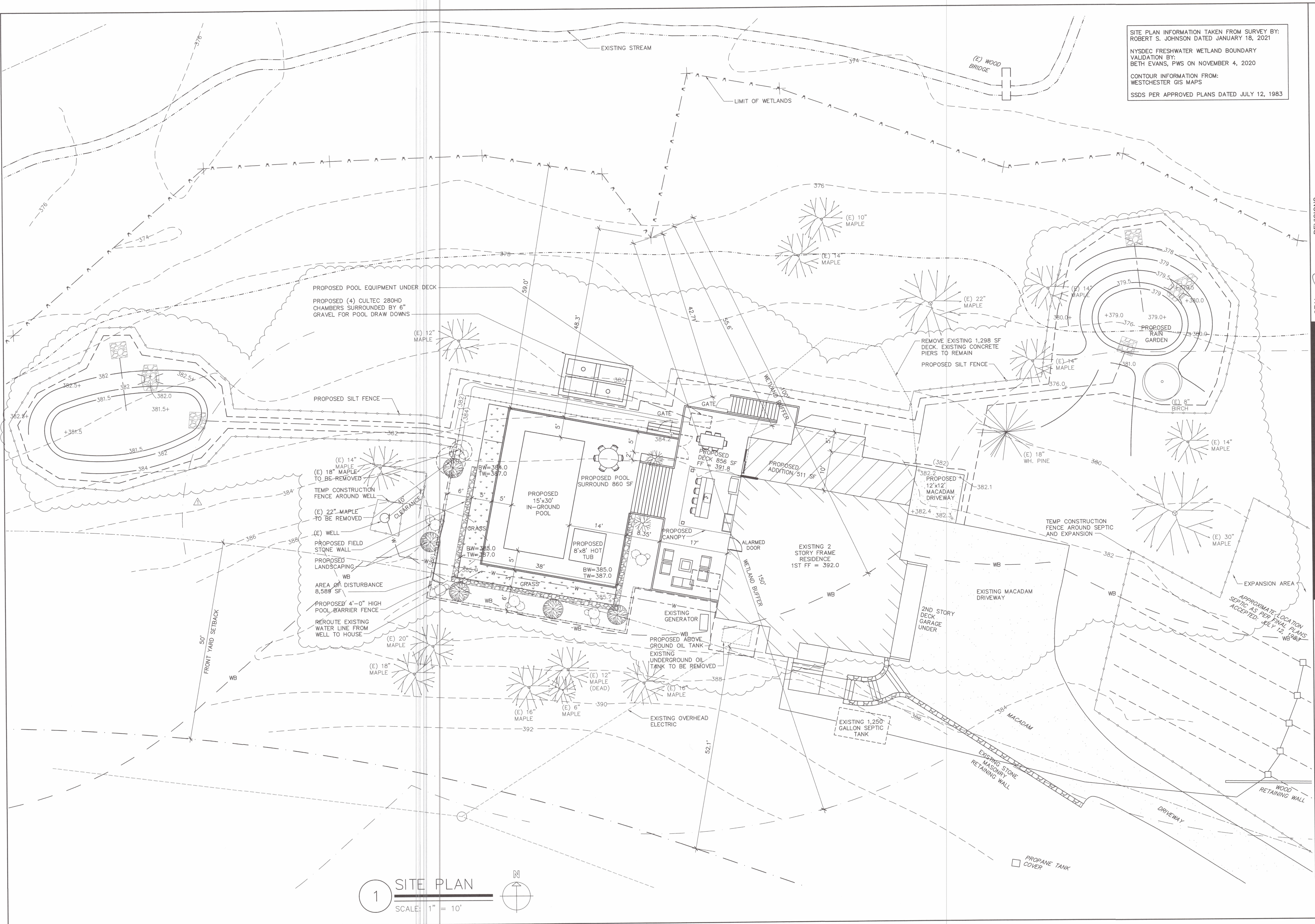
TITLE  
SITE PLAN

DATE  
OCTOBER 5, 2021  
SCALE  
1" = 40'  
PROJ. #

DRAWING

S  
1





SITE PLAN INFORMATION TAKEN FROM SURVEY BY:  
ROBERT S. JOHNSON DATED JANUARY 18, 2021

NYSDEC FRESHWATER WETLAND BOUNDARY  
VALIDATION BY:  
BETH EVANS, PWS ON NOVEMBER 4, 2020

CONTOUR INFORMATION FROM:  
WESTCHESTER GIS MAPS

SSDS PER APPROVED PLANS DATED JULY 12, 1983

REVISIONS



CROSS RIVER ARCHITECTS, LLC

ROBERT J. EBERTS R.A., PRINCIPAL

P.O. BOX 384  
19 NO. SALEM RD. 2nd FL.  
CROSS RIVER, N.Y. 10518

11/14/21

GENERAL REVISIONS

No.

Date

PROJECT  
GARDNER RESIDENCE  
23 WACCABUC ROAD  
GOLDENS BRIDGE, NEW YORK

TITLE  
SITE PLAN  
DATE  
OCTOBER 5, 2021

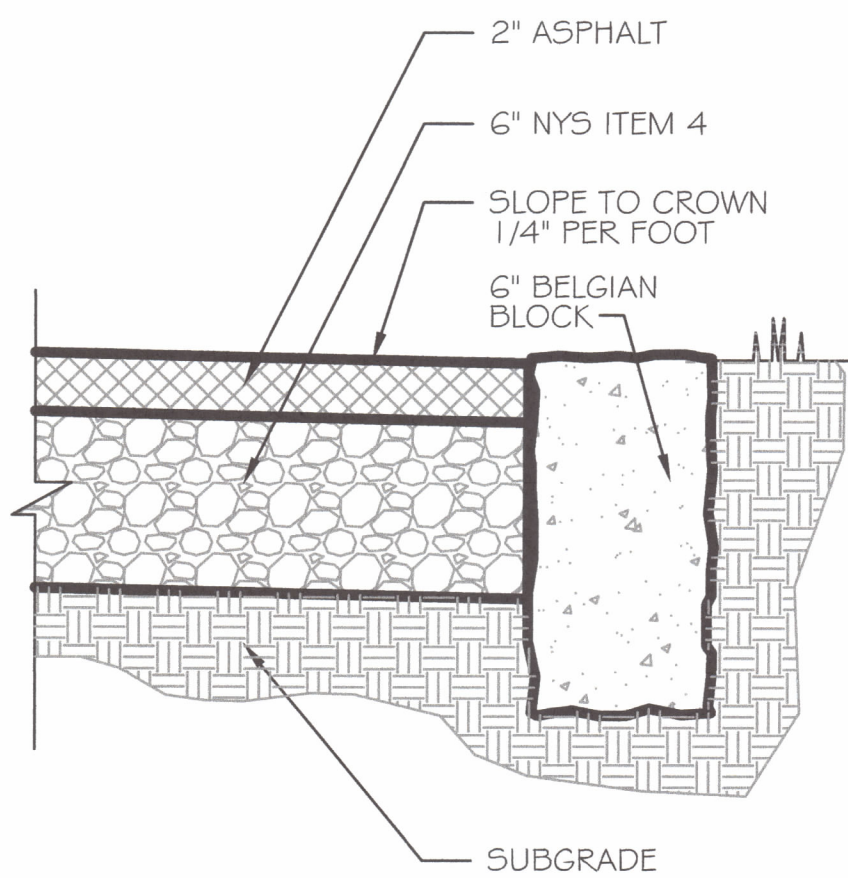
DRAWING

PROJ. #

SCALE  
1" = 10'

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2

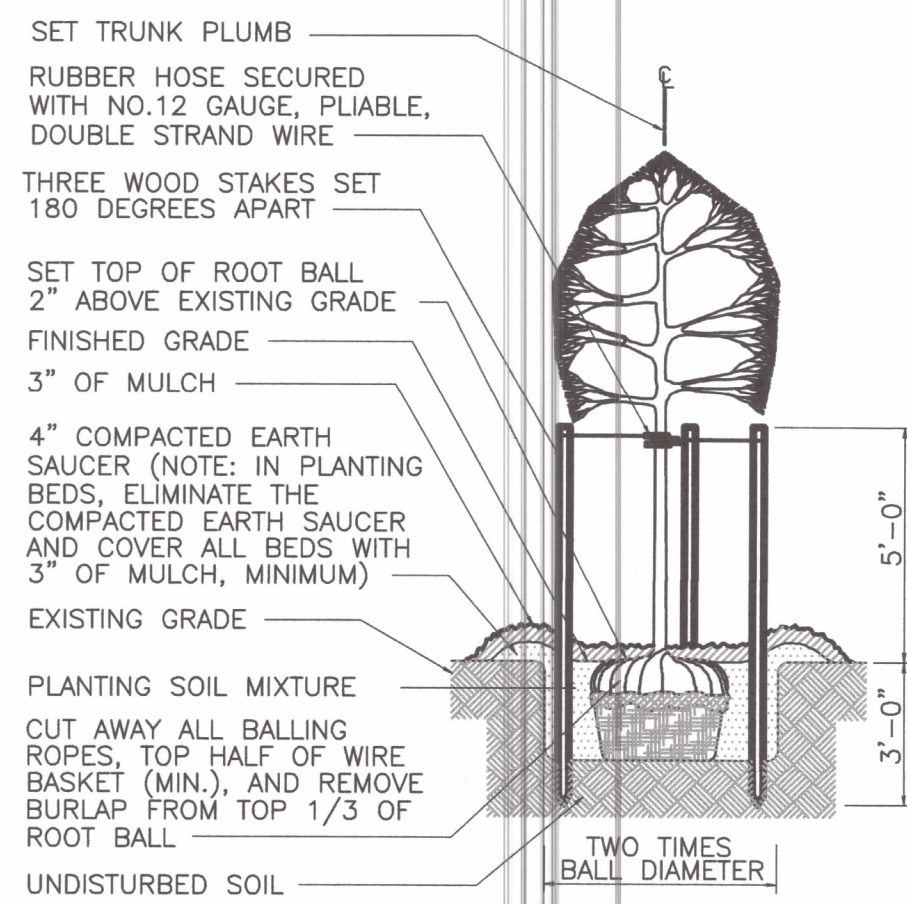




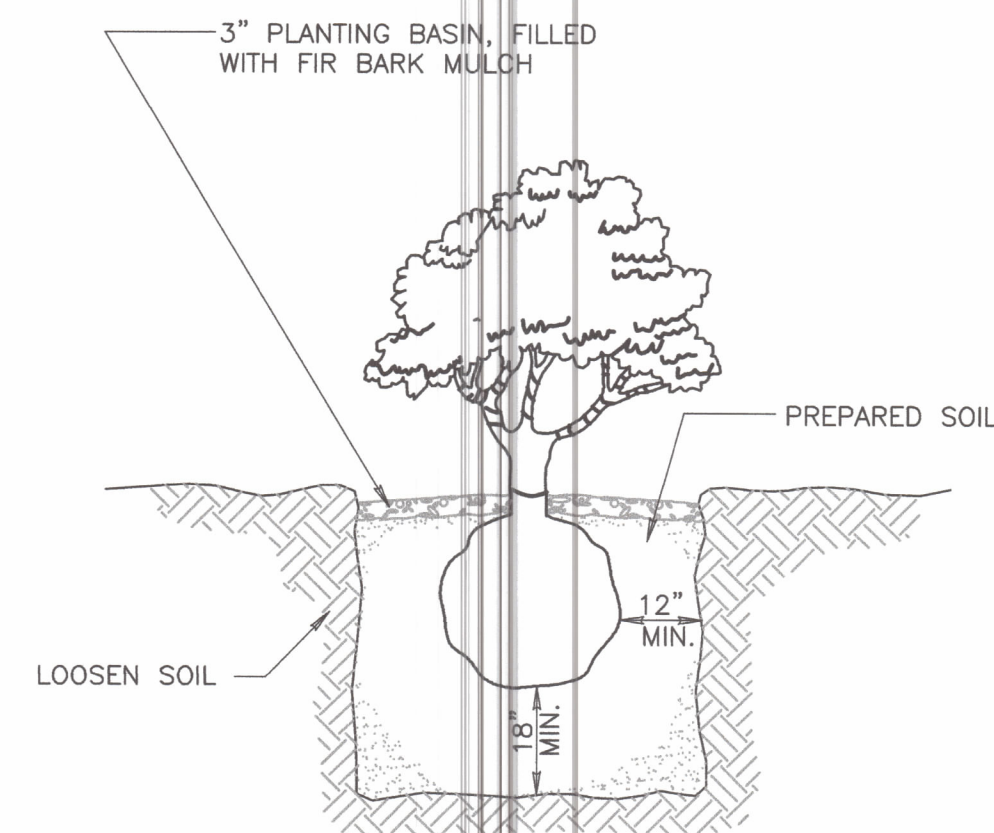
SECTION  
THRU ASPHALT DRIVEWAY

4

SCALE: NTS



TREE PLANTING DETAIL  
N.T.S.

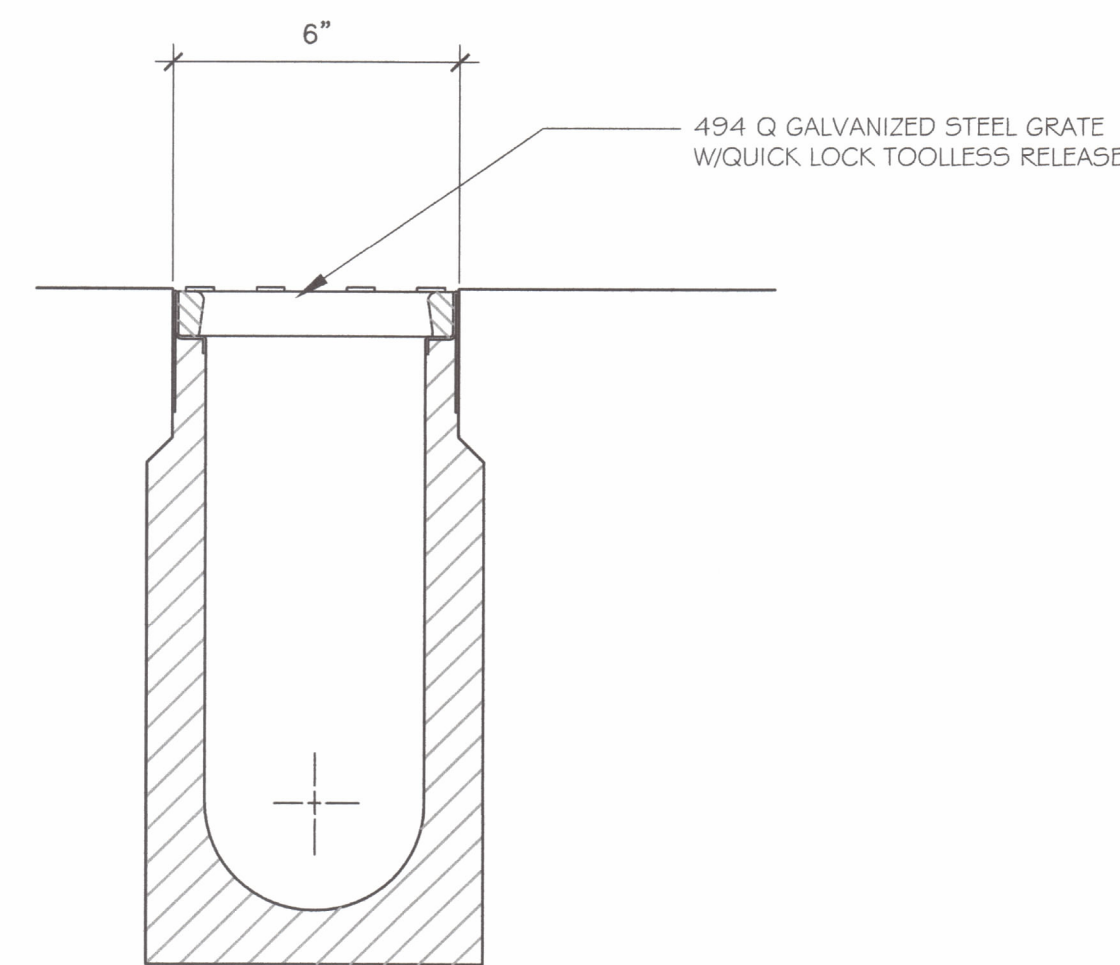


SHRUB PLANTING  
N.T.S.

3

PLANTING DETAILS

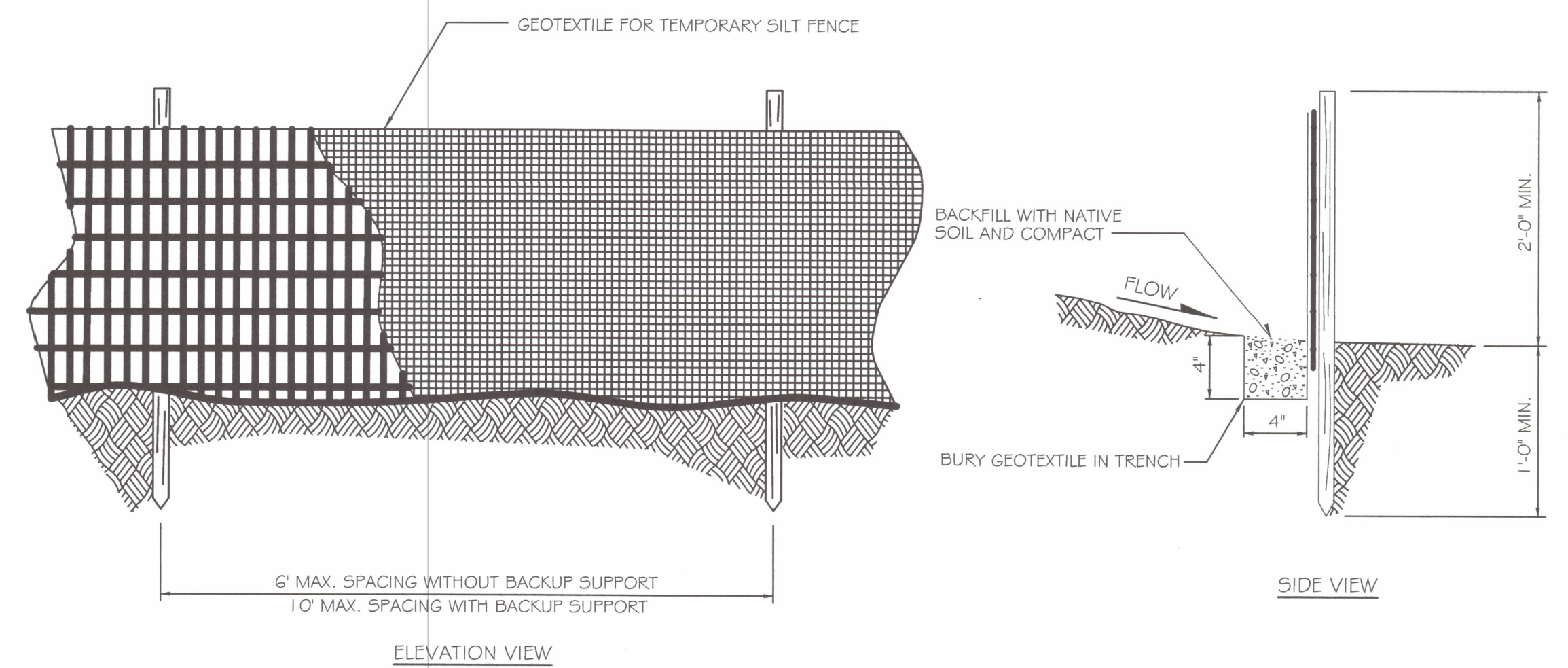
SCALE: NTS



2

TRENCH DRAIN DETAIL

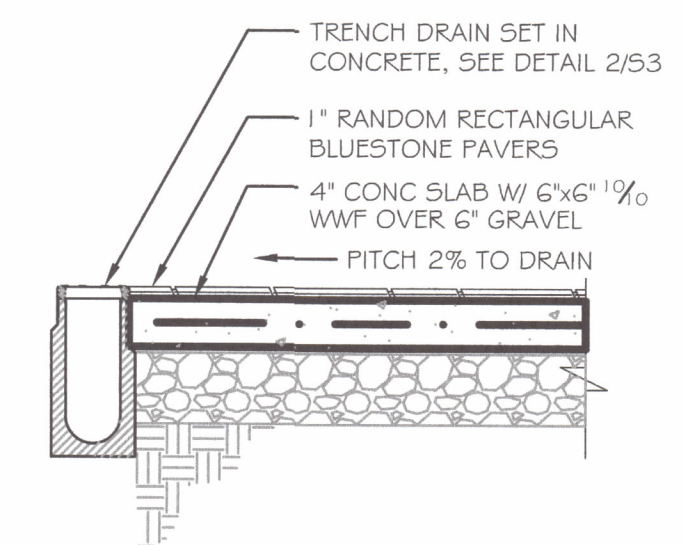
SCALE: NTS



1

SILT FENCE

SCALE: NTS



5

SECTION @ PATIO SLAB

SCALE: NTS



REVISIONS

No.	Desc.	Date

CROSS RIVER ARCHITECTS, LLC

ROBERT J. EBERTS R.A., PRINCIPAL

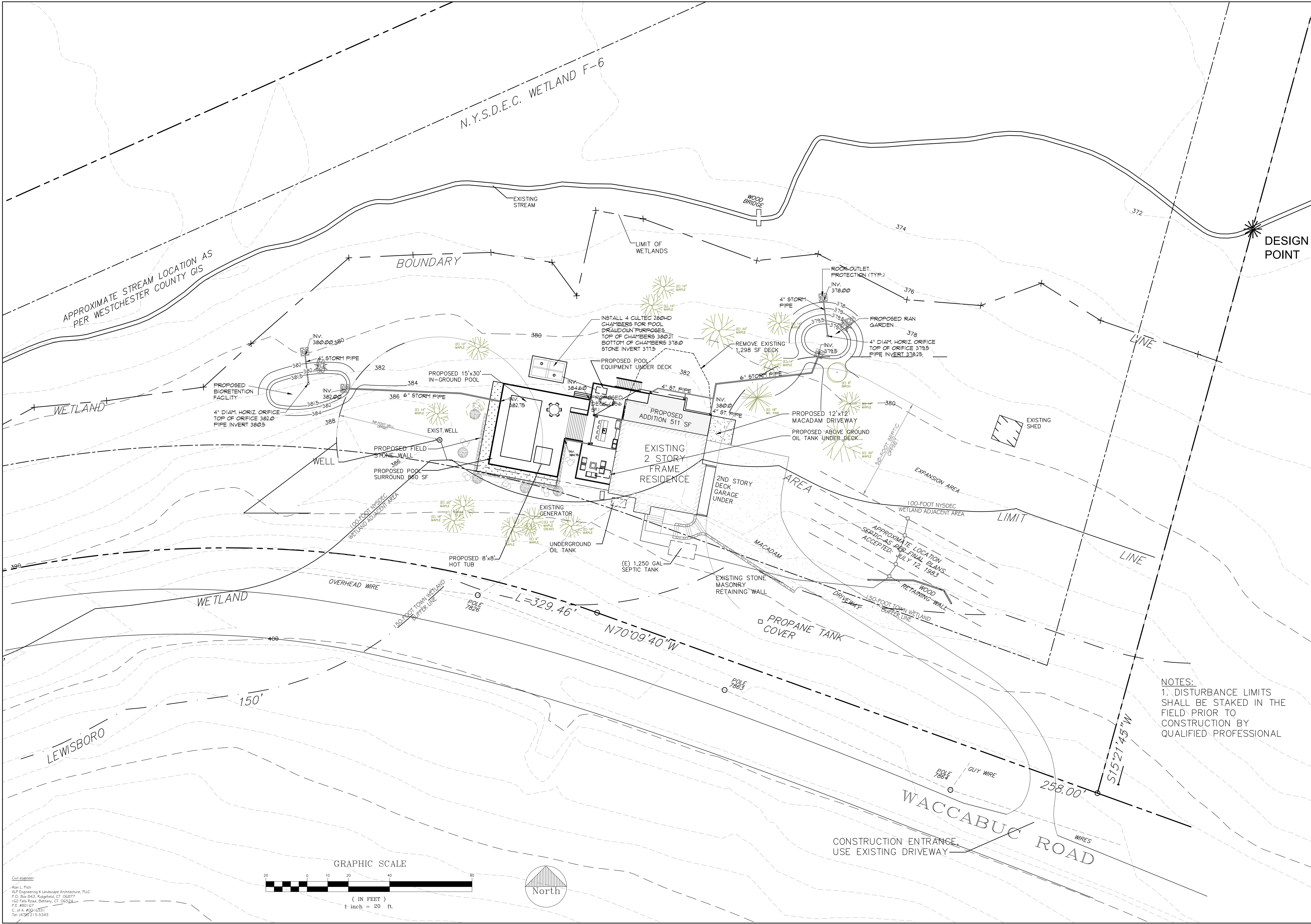
P.O. BOX 384  
19 NO. SALEM RD. 2nd FL.  
CROSS RIVER, N.Y. 10518  
914.763.5887  
FAX 914.763.8409

PROJECT  
GARDNER RESIDENCE  
23 WACCABUC ROAD  
GOLDENS BRIDGE, NEW YORK

TITLE  
DETAILS  
DATE  
OCTOBER 5, 2021  
SCALE  
AS NOTED  
PROJ. #

S  
3





CONSULTANTS:

ARCHITECT:  
BOB EBERTS  
Cross River Architects, LLC  
P.O. Box 384  
19 North Salem Road  
Cross River, NY 10518  
Tel: 914-763-5887  
Cell: 914-494-7692

ENVIRONMENTAL CONSULTANT:  
Evans Associates Environmental Consulting, Inc.  
162 Falls Road  
Bethany, CT 06524  
Tel: (203) 393-0690

ISSUED:  
Rev. layout as per architect's plans 11/29/2021

OWNERSHIP AND USE OF DOCUMENTS  
UNAUTHORIZED ALTERATIONS AND ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW.  
No part of these drawings shall be copied, disclosed to others or used in connection with any work or project other than for which they have been prepared without the express written consent of the licensed professional who prepared the document.

SEAL:

PROJECT NAME:  
**GARDNER PROPERTY**  
23 Waccabuc Road  
Goldens Bridge, New York

ENGINEER & LANDSCAPE ARCHITECT:  
**ALP ENGINEERING & LANDSCAPE ARCHITECTURE, PLLC**  
P.O. Box 843 Ridgefield, CT 06877  
Direct Tel: (475) 215-5343 Cell (203) 710-0587

Drawing Title:  
**Stormwater Management Plan**

Date: November 10, 2021

Dwn. by: alp

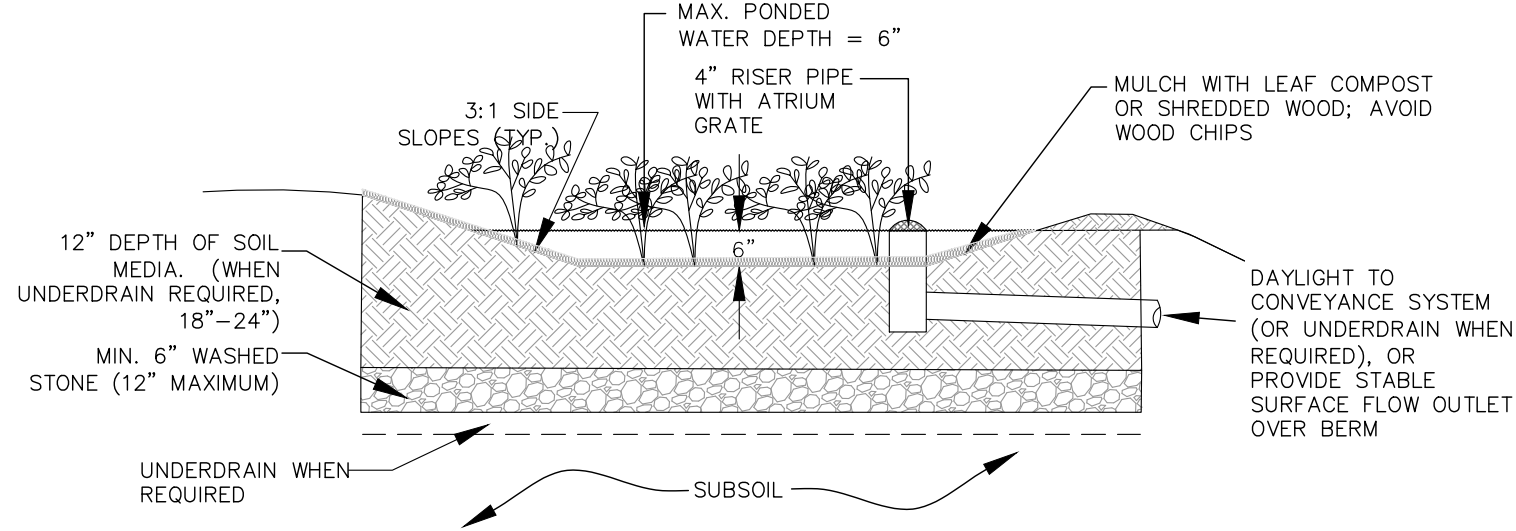
ID: 23 Waccabuc Site\_11-28-2021

**C-101**



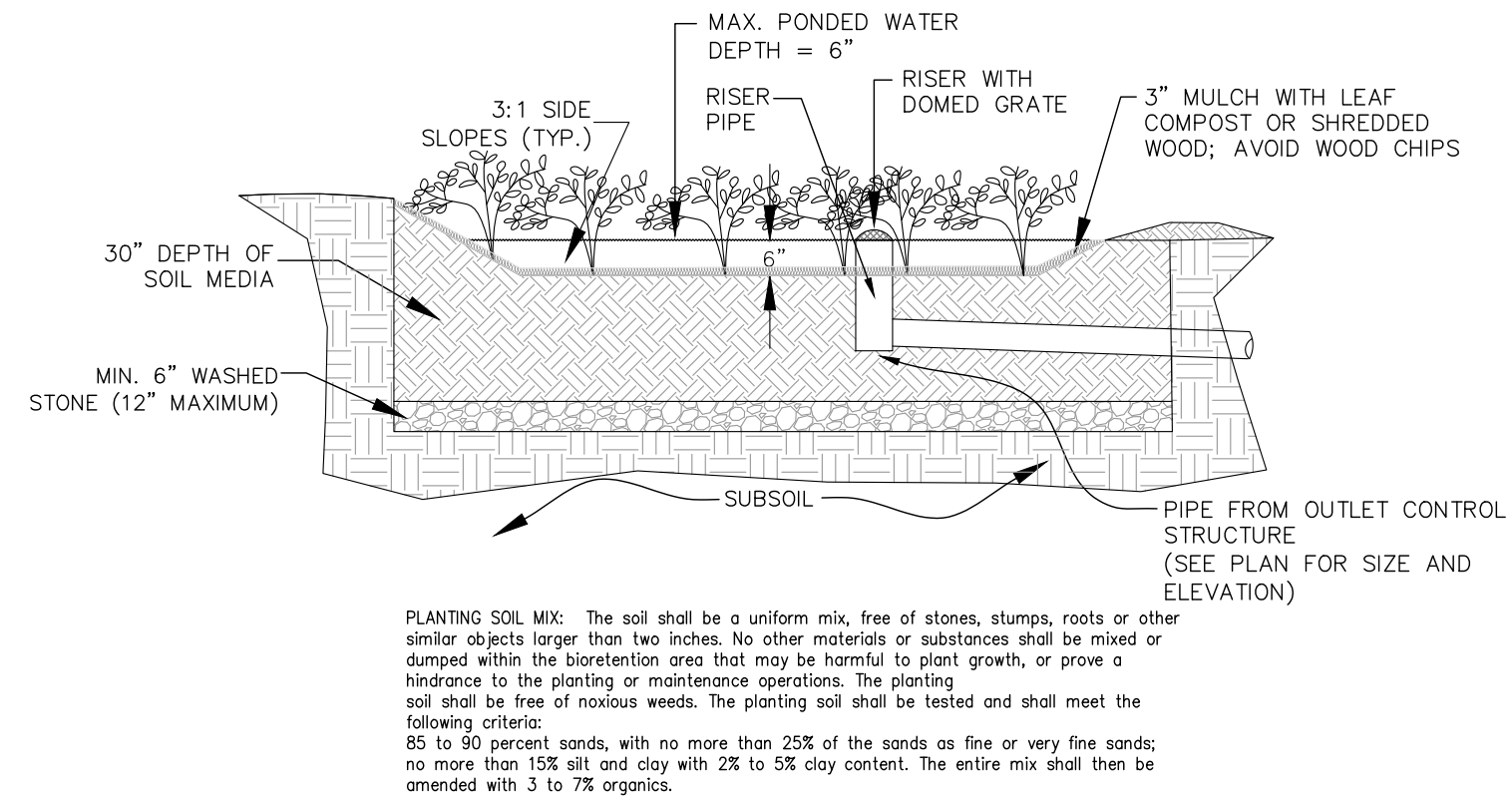
Rain Garden Installation

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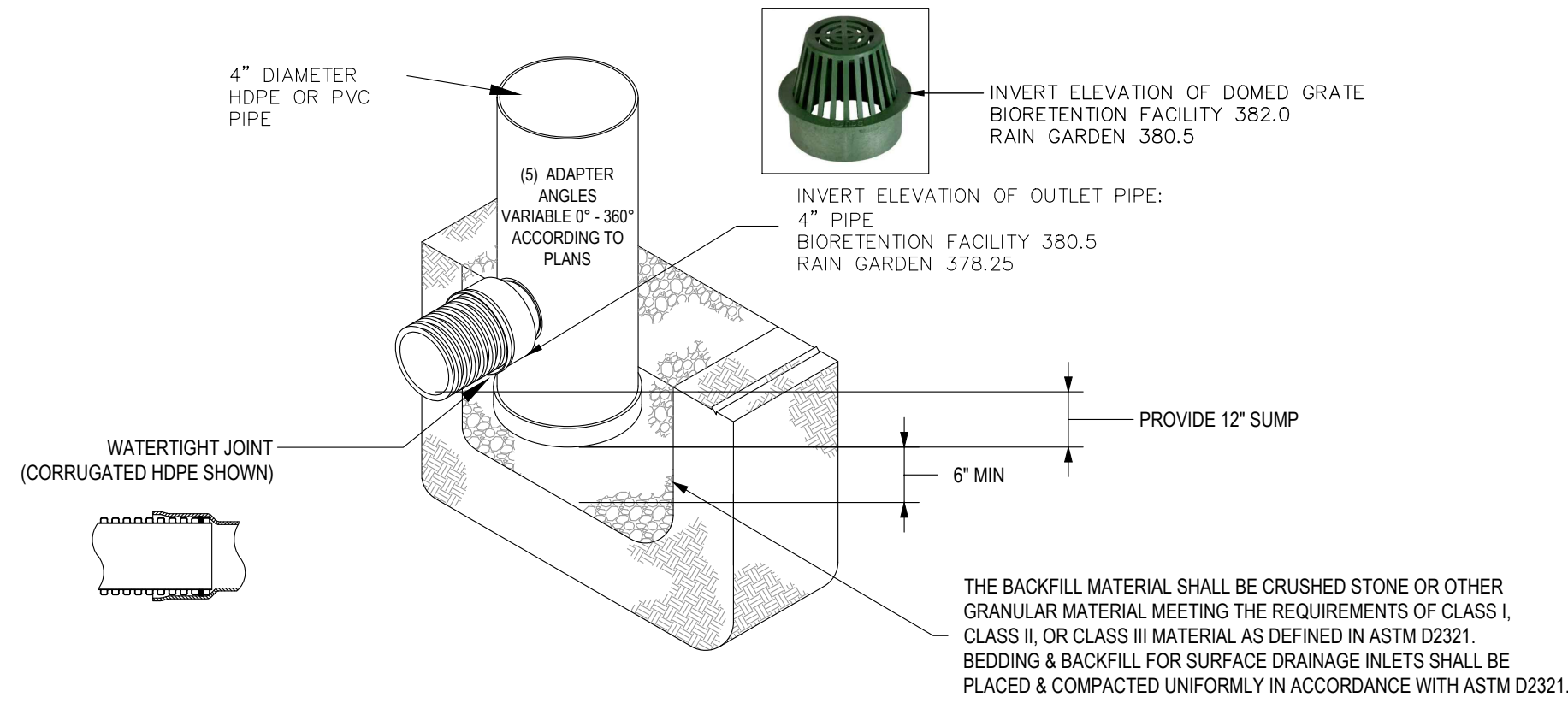
Stormwater Management Practice / Bioretention

4



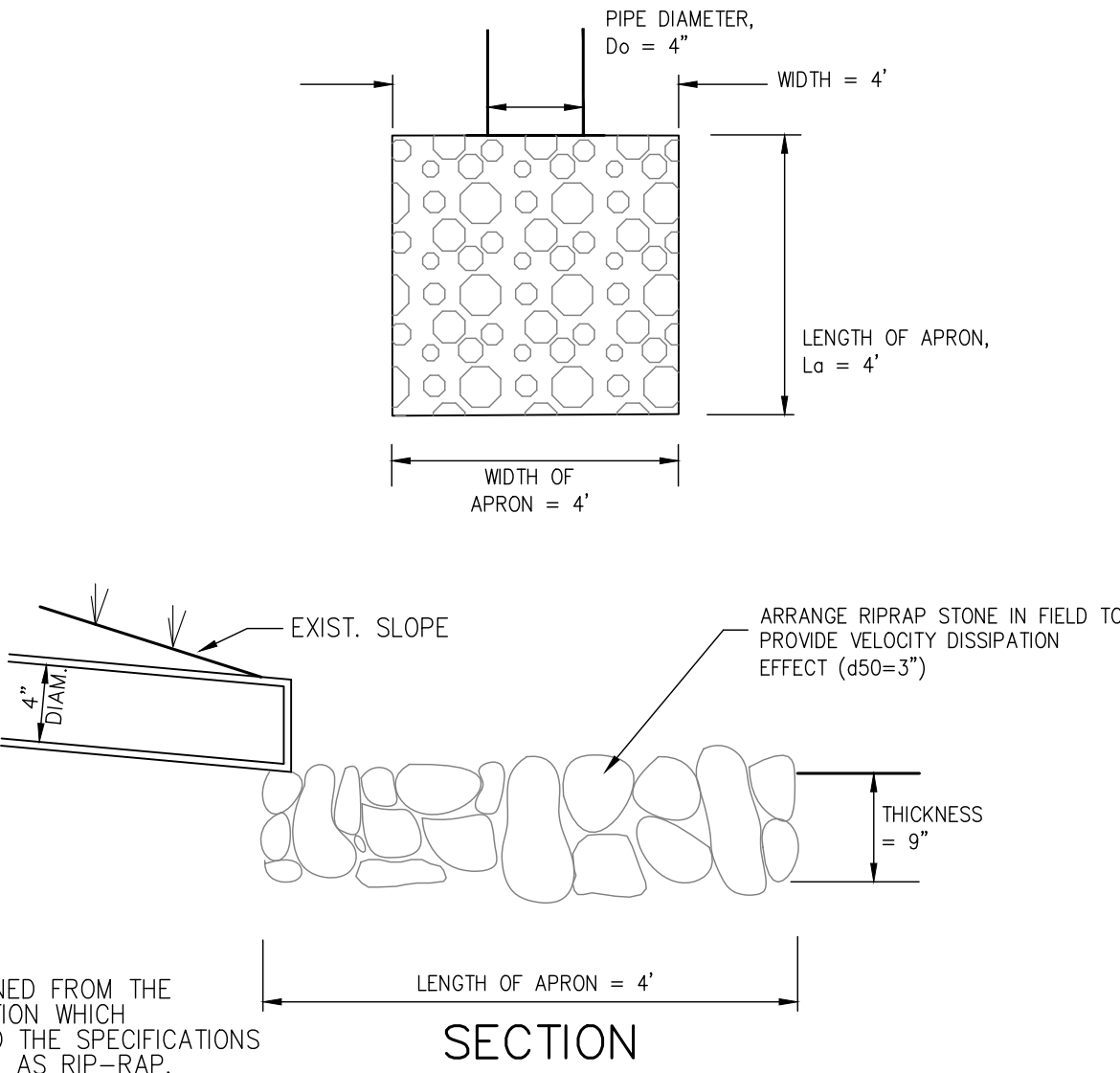
Bioretention & Rain Garden Facility Outlet Control Structure

2



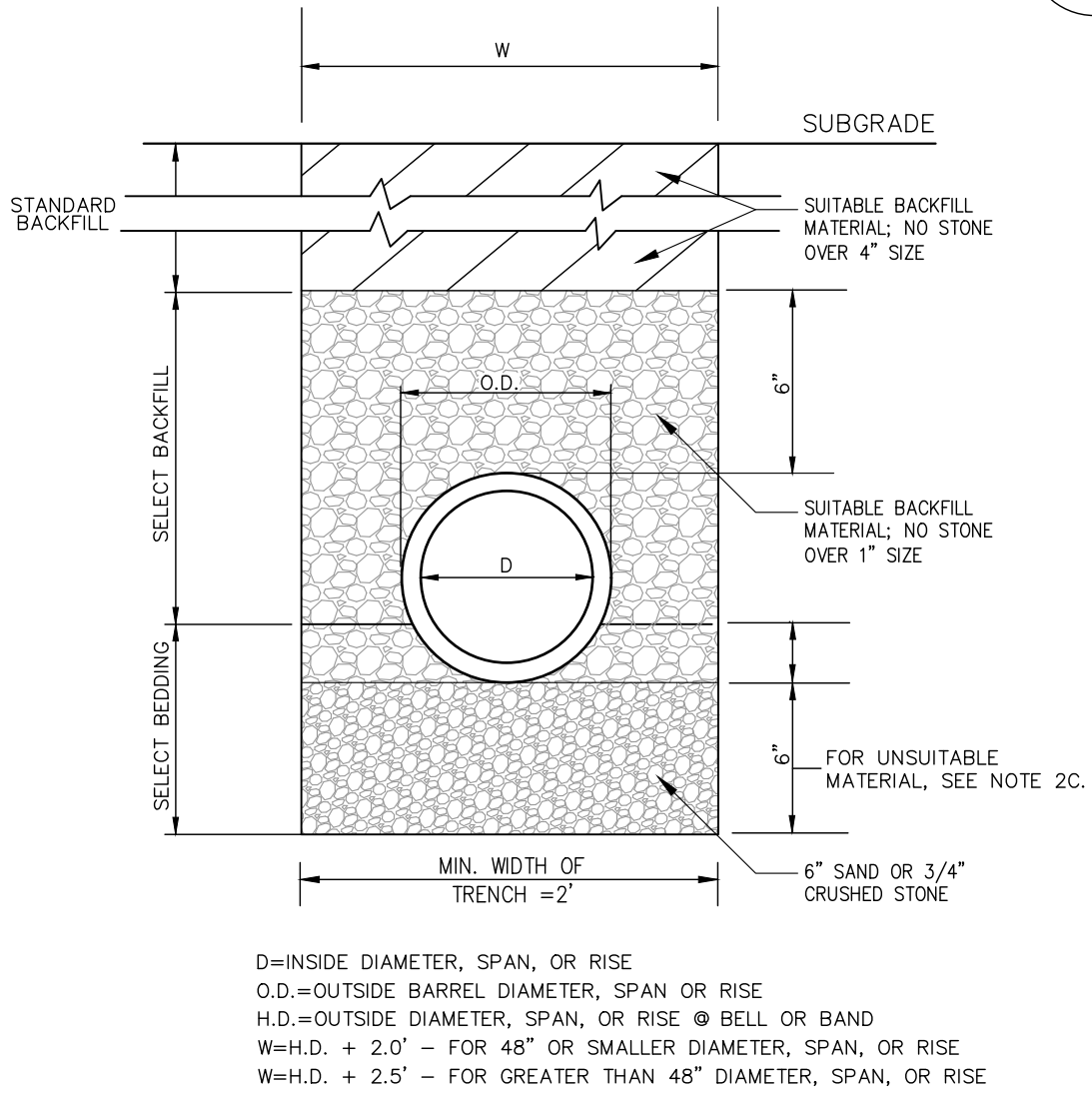
Rock Outlet Protection

5



Pipe Trench

3



- NOTES:
- FOR TYPE II TRENCH, MATERIAL FOR SELECT BEDDING AND SELECT BACKFILL SHALL BE:  
A. EITHER SAND OR CRUSHED STONE IF NO WATER IS ENCOUNTERED IN TRENCH.  
B. CRUSHED STONE IF WATER IS ENCOUNTERED IN TRENCH.
  - TYPE II TRENCH SHALL BE USED IN ALL OF THE FOLLOWING CASES:  
A. FOR ALL PVC PIPE AND CONDUIT INSTALLATION.  
B. WHEN ROCK OR HARDPAN IS ENCOUNTERED IN BOTTOM OF TRENCH.  
C. WHEN UNSUITABLE MATERIAL IS ENCOUNTERED IN BOTTOM OF TRENCH. IN SUCH CASE DEPTH OF UNDERCUTTING SHALL BE AS DIRECTED BY THE ENGINEER WITH 6" MINIMUM.
  - FOR ALL TRENCH EXCAVATION IN FILL AREAS, ALL EMBANKMENTS SHALL BE CONSTRUCTED TO A MINIMUM OF 2 FEET ABOVE THE OUTSIDE TOP (AT THE BELL) OF THE PIPE PRIOR TO BEGINNING ANY TRENCH EXCAVATION.
  - SELECT BEDDING - SHALL CONSIST OF A BED OF PROPERLY COMPACTED GRANULAR BEDDING MATERIAL (SAND OR CRUSHED STONE AS SPECIFIED) HAVING A COMPACTED THICKNESS OF AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE OR CONDUIT AND EXTENDING AROUND THE PIPE OR CONDUIT FOR AT LEAST 50% OF ITS DIAMETER OR RISE. THE LAYER OF BEDDING MATERIAL SHALL BE SHAPED TO FIT THE PIPE OR CONDUIT FOR AT LEAST 15% OF THE OUTSIDE DIAMETER OR RISE OF THE PIPE OR CONDUIT AND SHALL HAVE RECESSES SHAPED TO RECEIVE THE BELL OF BELL AND SPIGOT PIPE. SAND BEDDING SHALL BE CLEAN, WELL-GRADED SAND CONSISTING OF HARD, DURABLE PARTICLES FREE FROM LUMPS OF CLAY, LOAM AND ALL OTHER DELETERIOUS SUBSTANCES. CRUSHED STONE BEDDING SHALL BE WELL-GRADED CRUSHED STONE CONFORMING TO ASTM DESIGNATION C-33, SIZE NO. 67.
  - STANDARD BACKFILL - SHALL CONSIST OF ON-SITE MATERIAL (EARTH) APPROVED BY THE OWNER'S FIELD REPRESENTATIVE AND/OR SOILS ENGINEER. SHOULD THERE BE A DEFICIENCY OF PROPER ON-SITE MATERIAL FOR BACKFILLING, THE CONTRACTOR SHALL FURNISH, PLACE AND COMPACT ADDITIONAL PROPER BACKFILL MATERIAL.
  - SELECT BACKFILL - SHALL CONSIST OF GRANULAR MATERIAL (SAND OR CRUSHED STONE AS SPECIFIED) AS APPROVED BY THE OWNER'S FIELD REPRESENTATIVE AND/OR SOILS ENGINEER. SAND SHALL CONSIST OF CLEAN, WELL GRADED, HARD, DURABLE PARTICLES, FREE OF LUMPS OF CLAY, LOAM AND ALL OTHER DELETERIOUS SUBSTANCES. CRUSHED STONE SHALL CONSIST OF WELL GRADED CRUSHED STONE CONFORMING TO ASTM DESIGNATION C-33, SIZE NO. 67.
  - BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL SHALL THEN BE PLACED AND COMPACTED IN MAXIMUM TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES.

CONSULTANTS:

ARCHITECT:

BOB EBERTS  
Cross River Architects, LLC  
P.O. Box 384  
19 North Salem Road  
Cross River, NY 10518  
Tel: 914-763-5887  
Cell: 914-494-7692

ENVIRONMENTAL CONSULTANT:

Evans Associates Environmental Consulting, Inc.  
162 Falls Road  
Bethany, CT 06524  
Tel: (203) 393-0690

ISSUED:

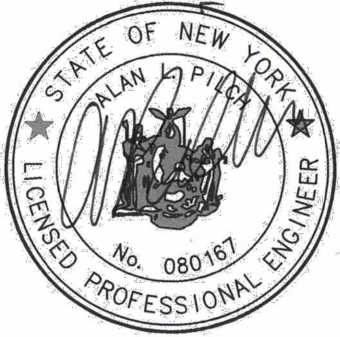
Submission to Planning Board 11/29/2021

OWNERSHIP AND USE OF DOCUMENTS

UNAUTHORIZED ALTERATIONS AND ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW.

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SEAL:



PROJECT NAME:

**GARDNER PROPERTY**  
23 Waccabuc Road  
Goldens Bridge, New York

ENGINEER & LANDSCAPE ARCHITECT:  
**ALP ENGINEERING**  
& LANDSCAPE ARCHITECTURE, PLLC

P.O. Box 843 Ridgefield, CT 06877  
Direct Tel: (475) 215-5343 Cell: (203) 710-0587

Drawing Title:

**Construction  
Details**

Date: November 10, 2021

Dwn. by: alp

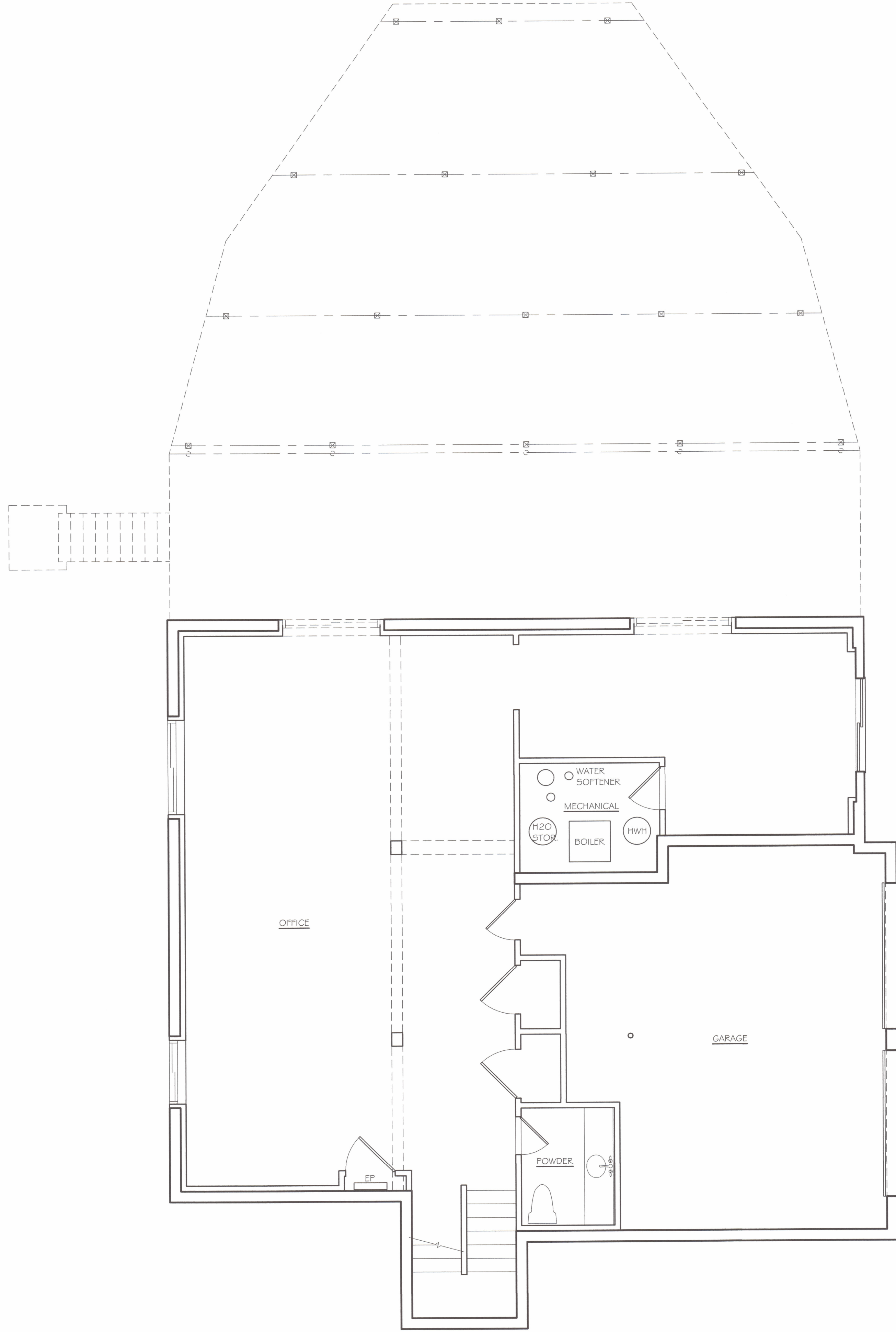
ID: 23 Waccabuc Site\_11-28-2021

C-111

Civil engineer:

Alan L. Pich  
ALP Engineering & Landscape Architecture, PLLC  
P.O. Box 843, Ridgefield, CT 06877  
162 Falls Road, Bethany, CT 06524  
P.E. #80167  
C. of A. #0016331  
Tel: (475) 215-5343





1 BASEMENT EXISTING / DEMOLITION PLAN  
SCALE: 1/4" = 1'-0"

DRAWING

A / 1

PROJECT  
GARDNER RESIDENCE ADDITION & ALTERATION  
23 Waccabuc Road  
Goldens Bridge, NY

TITLE  
BASEMENT EXISTING / DEMOLITION PLAN  
DATE OCT. 05, 2021 SCALE 1/4" = 1'-0" PROJ. #

CROSS RIVER ARCHITECTS, LLC  
ROBERT J. EBERTS R.A., PRINCIPAL

P.O. BOX 384  
19 NO. SALEM RD. 2nd FL.  
CROSS RIVER, N.Y. 10518

914.763.5887  
FAX 914.763.8409

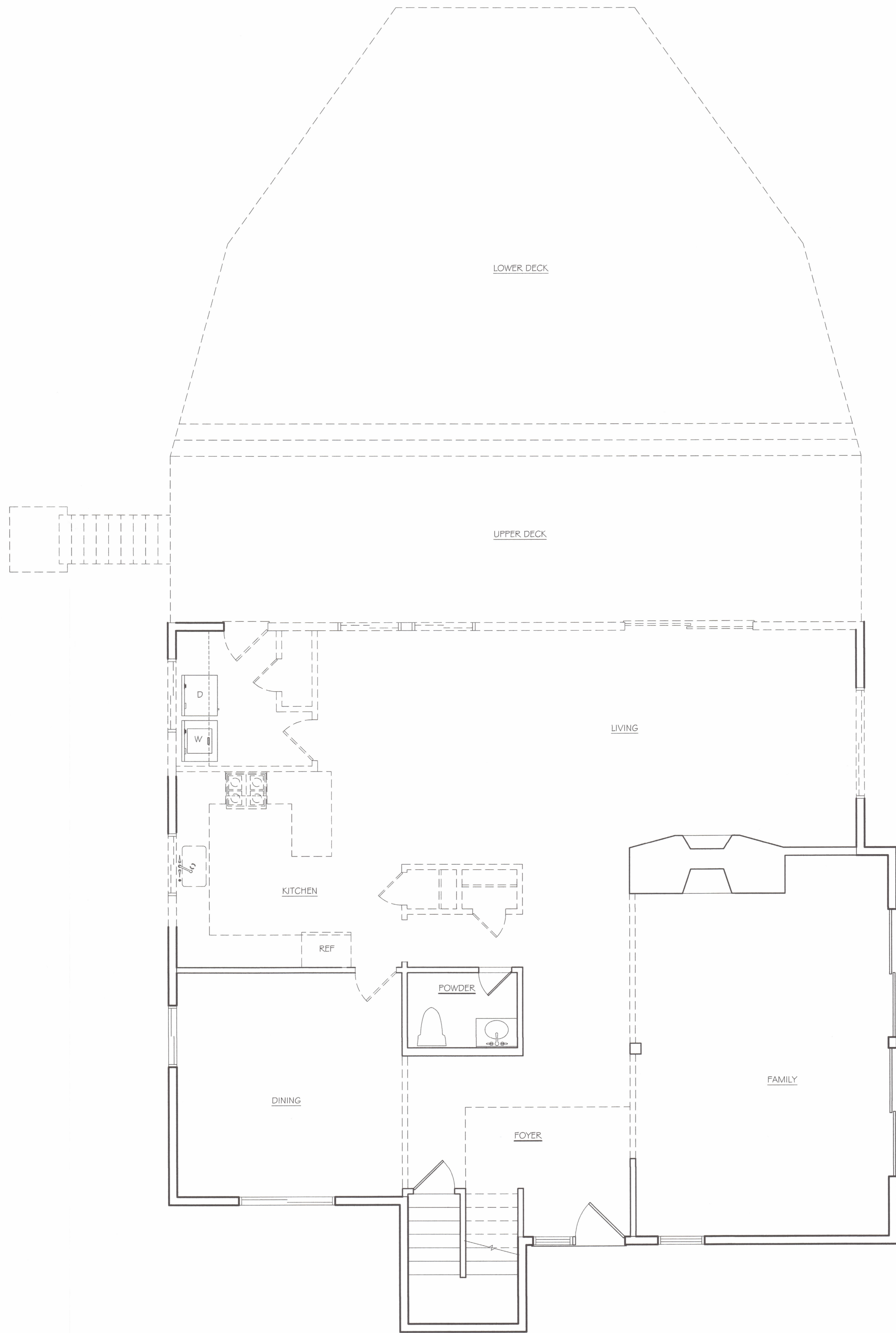
SEAL



REVISIONS

No.	Desc.	Date





1 FIRST FLOOR EXISTING / DEMOLITION PLAN  
SCALE: 1/4" = 1'-0"



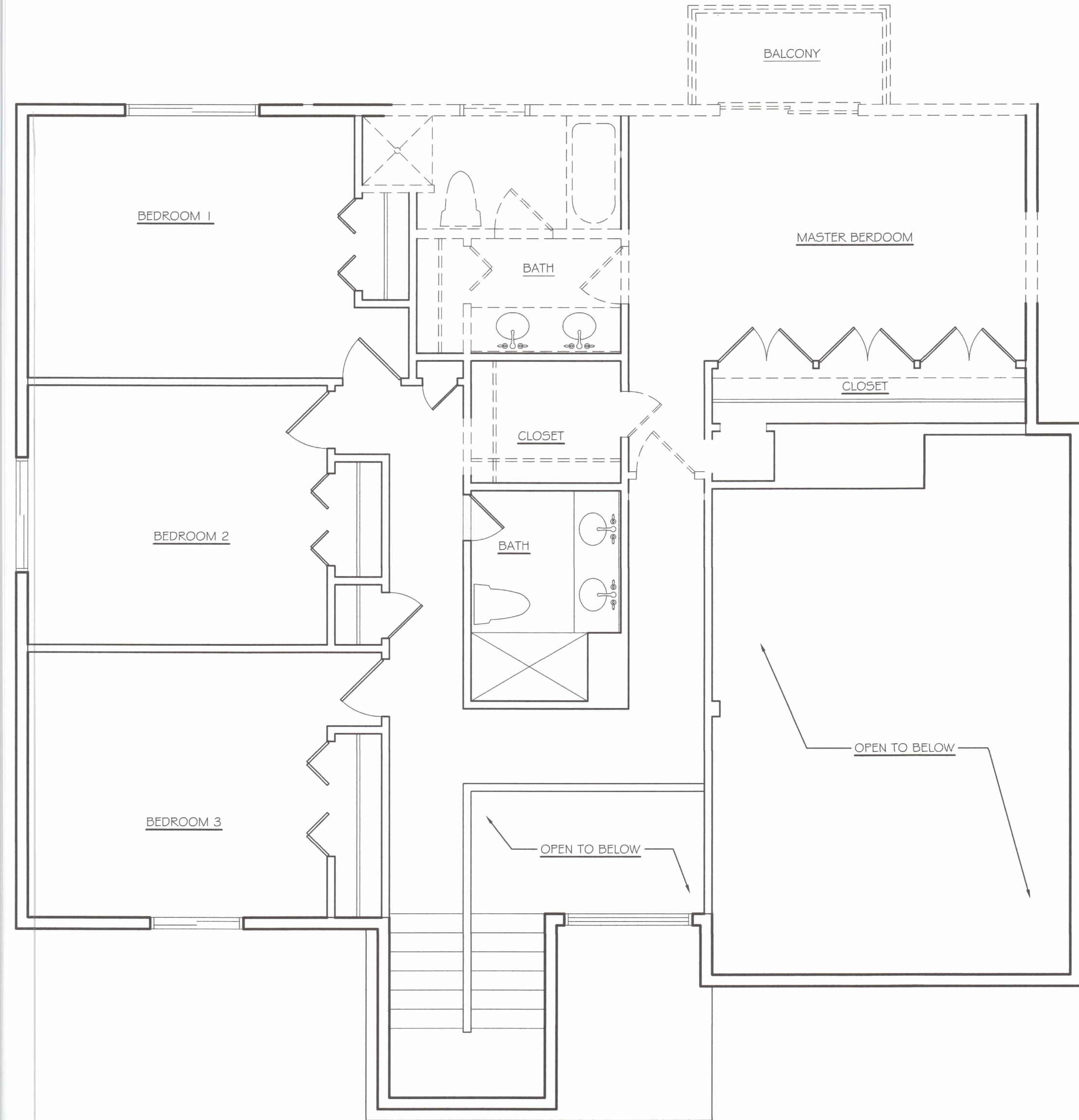
REVISIONS	
No.	Date



**CROSS RIVER ARCHITECTS, LLC**  
ROBERT J. EBERTS R.A., PRINCIPAL  
P.O. BOX 384  
19 NO. SALEM RD, 2nd FL.  
CROSS RIVER, N.Y. 10518  
914.763.5887  
FAX 914.763.8409

PROJECT  
GARDNER RESIDENCE ADDITION & ALTERATION  
23 Waccabuc Road  
Goldens Bridge, NY  
TITLE  
FIRST FLOOR EXISTING / DEMOLITION PLAN  
DATE  
OCT. 05, 2021  
SCALE  
1/4" = 1'-0"  
PROJ. #





2 SECOND FLOOR EXISTING / DEMOLITION PLAN  
SCALE: 1/4" = 1'-0"



REVISIONS			
No.	Date	Desc.	



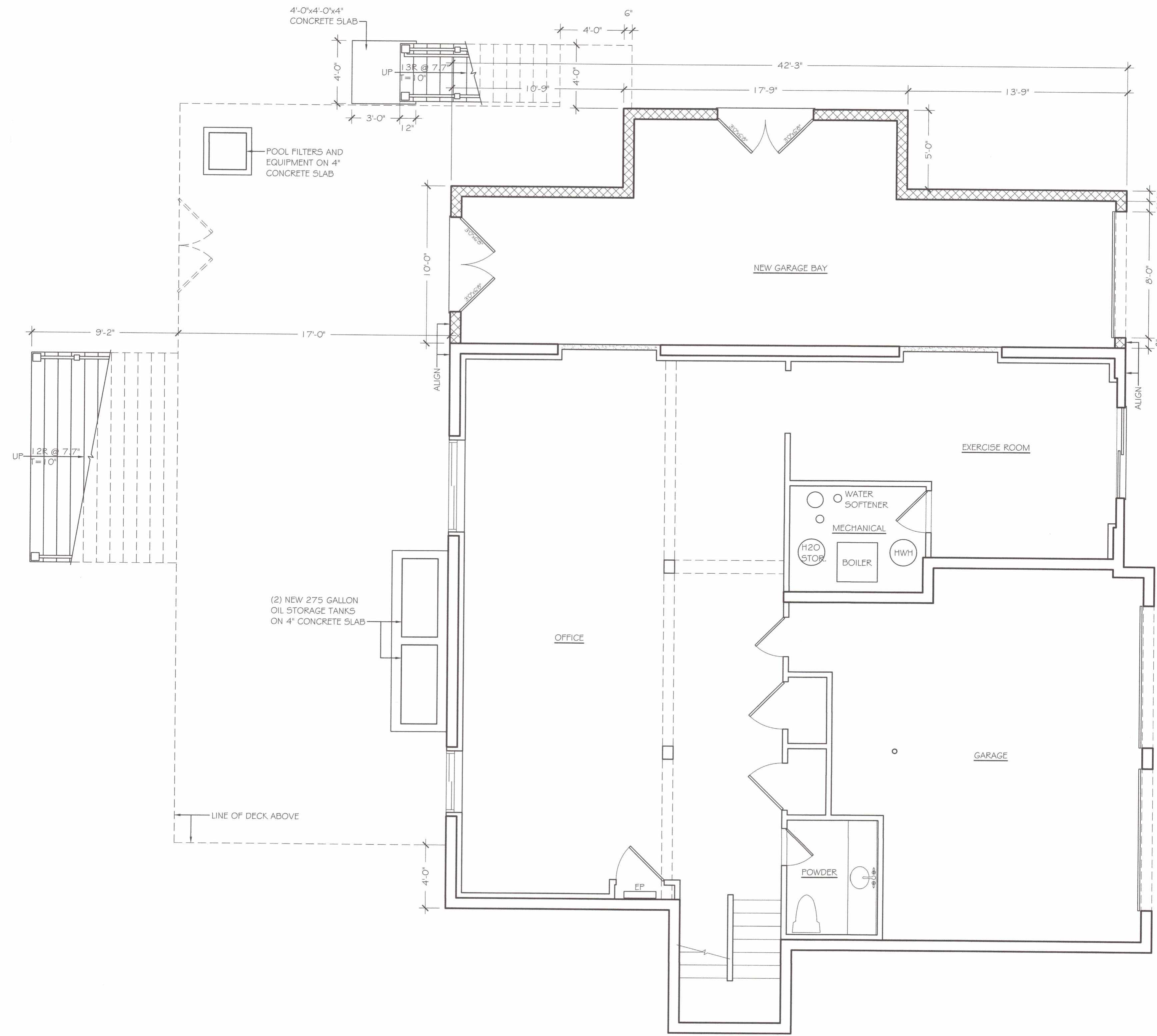
**CROSS RIVER ARCHITECTS, LLC**  
 ROBERT J. EBERTS R.A., PRINCIPAL  
 P.O. BOX 384  
 19 NO. SALEM RD. 2nd FL.  
 CROSS RIVER, N.Y. 10518  
 914.763.5887  
 FAX 914.763.8409

PROJECT: GARDNER RESIDENCE ADDITION & ALTERATION  
 23 Waccabuc Road  
 Goldens Bridge, NY

TITLE: SECOND FLOOR EXISTING / DEMOLITION PLAN  
 DATE: OCT. 05, 2021  
 SCALE: 1/4" = 1'-0"  
 PROJ. #

**A / 3**





1 BASEMENT CONSTRUCTION PLAN  
SCALE: 1/4" = 1'-0"

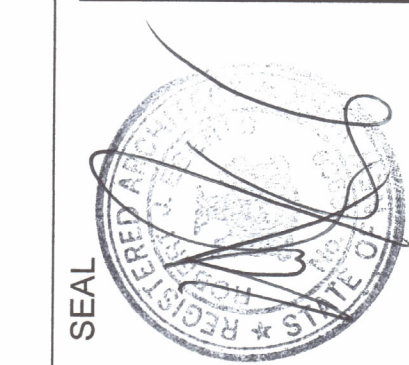


PROJECT  
GARDNER RESIDENCE ADDITION & ALTERATION  
23 Waccabuc Road  
Goldens Bridge, NY

TITLE  
BASEMENT CONSTRUCTION PLAN  
DATE  
OCT. 05, 2021  
SCALE  
1/4" = 1'-0"  
PROJ. #

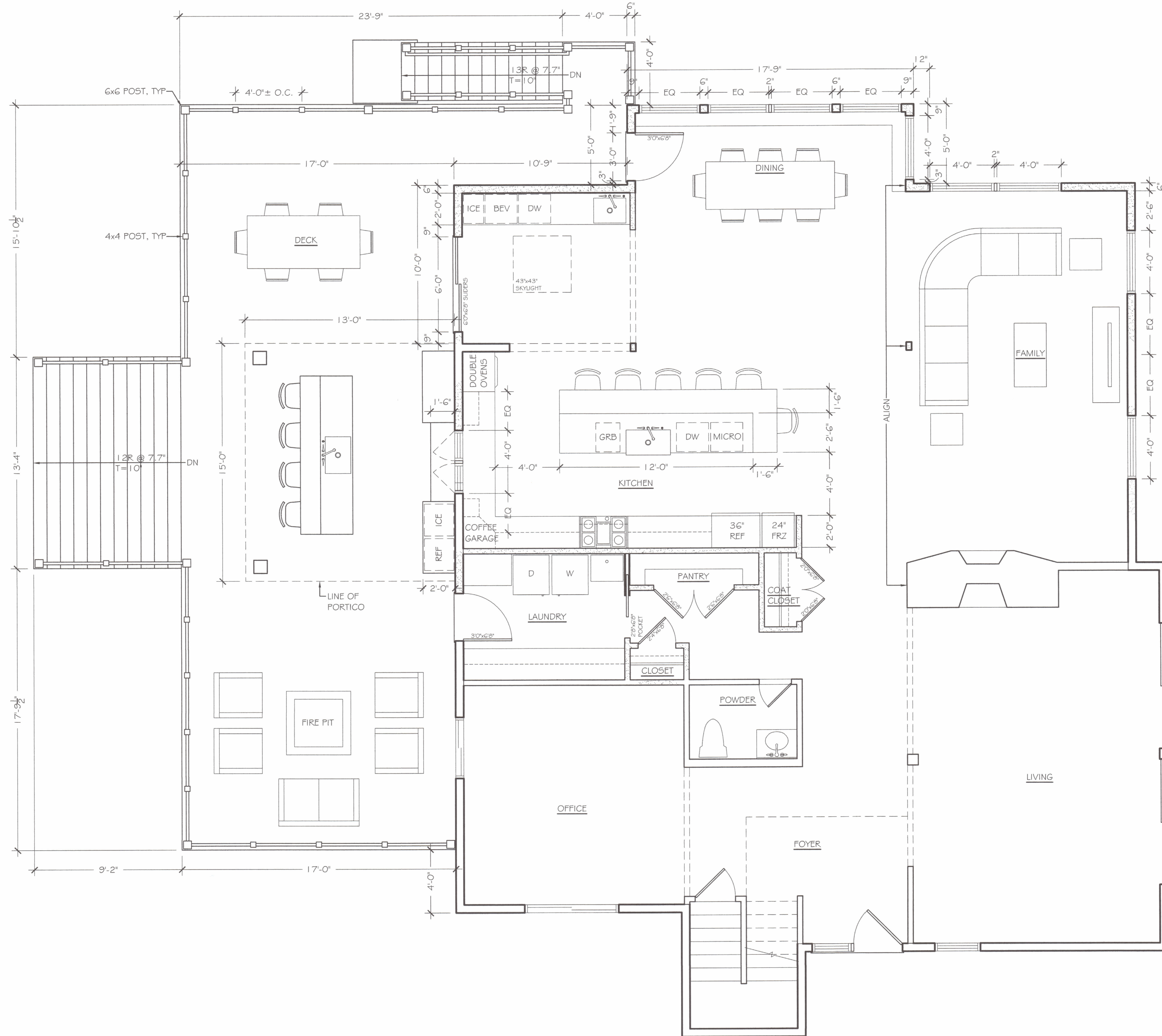
CROSS RIVER ARCHITECTS, LLC  
ROBERT J. EBERTS R.A., PRINCIPAL

P.O. BOX 384  
19 NO. SALEM RD. 2nd FL.  
CROSS RIVER N.Y. 10518  
914.763.5887  
FAX 914.763.8409



REVISIONS			
No.	Desc.	Date	





1 FIRST FLOOR CONSTRUCTION PLAN  
SCALE: 1/4" = 1'-0"



PROJECT  
GARDNER RESIDENCE ADDITION & ALTERATION  
23 Waccabuc Road  
Golden Bridge, NY

TITLE  
FIRST FLOOR CONSTRUCTION PLAN  
DATE OCT. 05, 2021 SCALE 1/4" = 1'-0" PROJ. #

DRAWING

A/5

CROSS RIVER ARCHITECTS, LLC

ROBERT J. EBERTS R.A., PRINCIPAL

P.O. BOX 384  
19 NO. SALEM RD. 2nd FL.  
CROSS RIVER, N.Y. 10518

914.763.5887  
FAX 914.763.8409

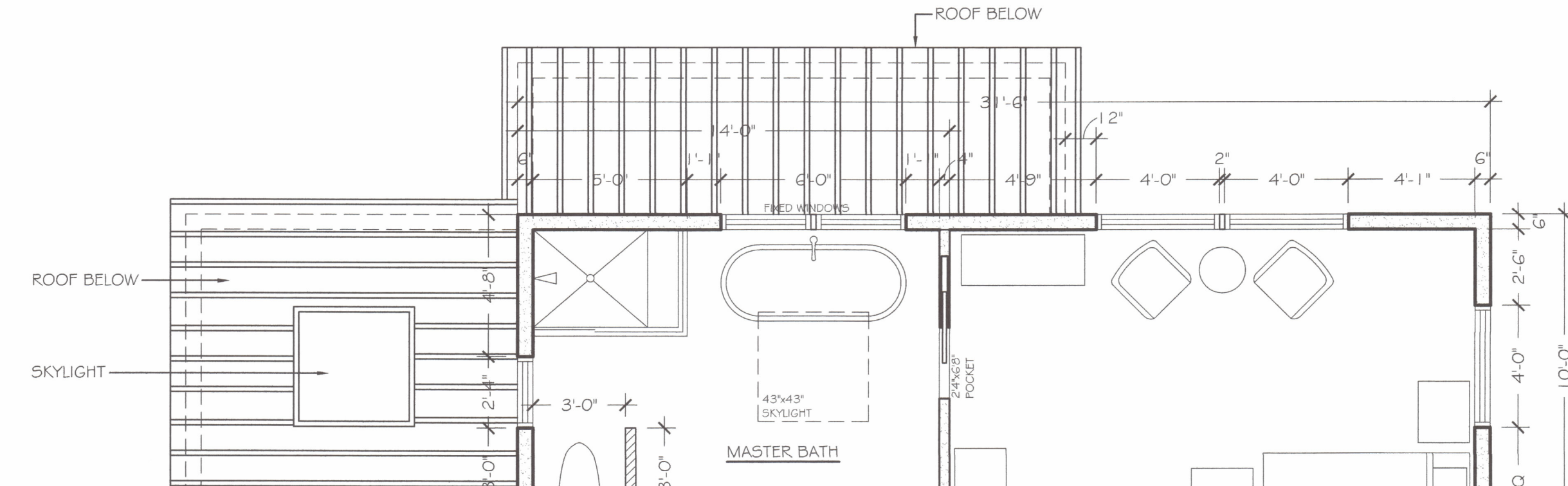
SEAL



REVISIONS

No.	Date





# REVISIONS

No.	Desc.	Date





1 FRONT (SOUTH) ELEVATION  
SCALE: 1/4" = 1'-0"



2 RIGHT (EAST) ELEVATION  
SCALE: 1/4" = 1'-0"

PROJECT  
GARDNER RESIDENCE ADDITION & ALTERATION  
23 Waccabuc Road  
Goldsens Bridge, NY

TITLE  
PROPOSED FRONT & RIGHT ELEVATIONS  
DATE OCT. 05, 2021  
SCALE 1/4" = 1'-0"  
PROJ. #

CROSS RIVER ARCHITECTS, LLC  
ROBERT J. EBERTS R.A., PRINCIPAL

P.O. BOX 384  
19 NO. SALEM RD. 2nd FL.  
CROSS RIVER, N.Y. 10518  
914.763.5887  
FAX 914.763.8409



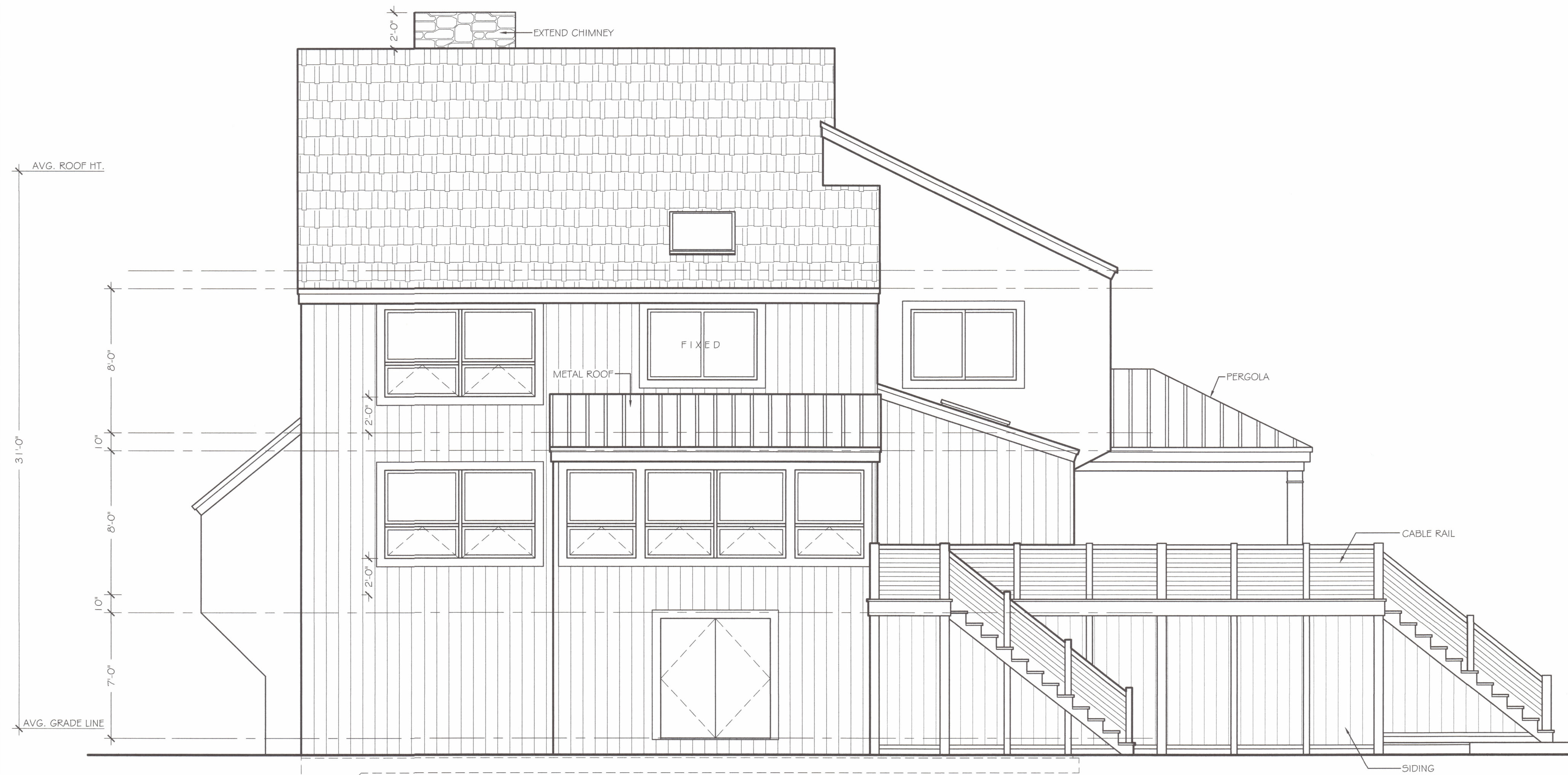
REVISIONS

No.	Date

DRAWING

A/7





1 REAR (NORTH) ELEVATION  
SCALE: 1/4" = 1'-0"



2 LEFT (WEST) ELEVATION  
SCALE: 1/4" = 1'-0"

REVISIONS



SEAL

CROSS RIVER ARCHITECTS, LLC  
ROBERT J. EBERTS R.A., PRINCIPAL

P.O. BOX 384  
19 NO. SALEM RD., 2nd FL.  
CROSS RIVER, N.Y. 10518  
914.763.8887  
FAX 914.763.8409

PROJECT  
GARDNER RESIDENCE ADDITION & ALTERATION  
23 Waccabuc Road  
Goldens Bridge, NY

TITLE  
PROPOSED REAR & LEFT ELEVATIONS  
DATE  
OCT. 05, 2021

SCALE  
1/4" = 1'-0"  
PROJ. #

DRAWING

A/8



The Office of the Westchester County Clerk: This page is part of the Instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.



\*552723253DED001Y\*

## Westchester County Recording &amp; Endorsement Page

### Submitter Information

Name: Thoroughbred Title Services, LLC  
Address 1: 800 Westchester Avenue  
Address 2: Suite S434  
City/State/Zip: Rye Brook NY 10573  
Phone: 914-644-6100  
Fax: 914-644-6159  
Email: recording@thoroughbredtitleservices.co  
Reference for Submitter: 62528 Gardner

## Document Details

Control Number: 552723253  
 Document Type: Deed (DED)  
 Package ID: 2015092900167001001  
 Document Page Count: 4  
 Total Page Count: 5

## Parties

2nd PARTY

2nd PARTY

1:	LEMBECK ANTHONY J	- Individual	1:	GARDNER TODD G	- Individual
2:	LEWIS ANDREA	- Individual	2:	GARDNER LAURA	- Individual

**Property**

Street Address: 23 WACABUC ROAD  
City/Town: LEWISBORO  
Tax Designation: 12-11360-12  
Village:

## Cross-References

Cross-References	Additional Cross-Refs on Continuation page
1:	<input type="checkbox"/>
2:	
3:	
4:	

## Supporting Documents

1: RP-5217 2: TP-584

## Recording Fees

Statutory Recording Fee:	\$40.00
Page Fee:	\$25.00
Cross-Reference Fee:	\$0.00
Mortgage Affidavit Filing Fee:	\$0.00
RP-5217 Filing Fee:	\$125.00
TP-584 Filing Fee:	\$5.00
<b>Total Recording Fees Paid:</b>	<b>\$195.00</b>

## Transfer Taxes

Consideration:	\$665,000.00
Transfer Tax:	\$2,660.00
Mansion Tax:	\$0.00
Transfer Tax Number:	3273

## Mortgage Taxes

Document Date:	
Mortgage Amount:	
Basic:	\$0.00
Westchester:	\$0.00
Additional:	\$0.00
MTA:	\$0.00
Special:	\$0.00
Yonkers:	\$0.00
Total Mortgage Tax:	\$0.00
Dwelling Type:	
Serial #:	
Exempt:	<input type="checkbox"/>

## RECORDED IN THE OFFICE OF THE WESTCHESTER COUNTY CLERK



Recorded: 10/05/2015 at 04:32 PM  
Control Number: **552723253**  
Witness my hand and official seal

Twenty C. S. 100

Timothy C. Idoni  
Westchester County Clerk

### Record and Return To

☐ Pick-up at County Clerk's office

Thoroughbred Title Services  
800 Westchester Avenue  
S-434  
Rye Brook, NY 10573



**TOGETHER** with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof,

**TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

**TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

**AND** the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been incumbered in any way whatever, except as aforesaid.

**AND** the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.  
**IN WITNESS WHEREOF**, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

WITNESSETH

ANTHONY J. LEMBECK

ANDREA LEMBECK



**Acknowledgement taken in New York State**

State of New York, County of Westchester

On the 29<sup>th</sup> day of September, in the year 2015, before me, the undersigned, personally appeared  
Anthony J. Lembeck  
personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument.

*Elizabeth A. Cosgrove*

ELIZABETH A. COSGROVE  
Notary Public, State of New York  
No. 02CO06166867  
Qualified in Westchester County  
Commission Expires 5/21/2019

**Acknowledgement by Subscribing Witness taken in New York State**

State of New York, County of

On the day of , in the year , before me, the undersigned, personally appeared  
the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who being by me duly sworn, did depose and say, that he/she/they reside(s) in  
that he/she/they know(s)  
to be the individual described in and who executed the foregoing instrument; that said subscribing witness was present and saw said  
execute the same; and that said witness at the same time subscribed his/her/their name(s) as a witness thereto.

Title No.: TBT-62528

ANTHONY J. LEMBECK & ANDREA LEMBECK

-to-  
TODD GARDNER & LAURA GARDNER

6.

TO



**The Judicial Title Insurance Agency LLC**

550 Mamaroneck Ave.

Suite 204

Harrison, NY 10528

Tel: (914) 381-6700

Fax: (914) 381-3131

888 Seventh Ave., Suite 300

New York, NY 10106

800-281-TITLE (8485)

(212) 432-3272

Fax: 800-FAX-9396

**Acknowledgement taken in New York State**

State of New York, County of Westchester

On the 29<sup>th</sup> day of September, in the year 2015, before me, the undersigned, personally appeared  
Andrea Lembeck

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument.

*Elizabeth A. Cosgrove*

ELIZABETH A. COSGROVE  
Notary Public, State of New York  
No. 02CO06166867  
Qualified in Westchester County  
Commission Expires 5/21/2019

**Acknowledgement taken outside New York State**

\* State of , County of , ss:  
\* (or insert District of Columbia, Territory, Possession or Foreign Country)

On the day of , in the year , before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before the undersigned in the

(add the city or political subdivision and the state or country or other place the acknowledgement was taken).

SECTION 12

BLOCK 11360

LOT 12

COUNTY OR TOWN

Westchester / **LEWISBORO**  
**23 MACCABEE ROAD**  
RETURN BY MAIL TO:

Matthew A. Ziccardi, Esq.  
237 Mamaroneck Avenue - Suite 402  
White Plains, New York

Zip No. 10605



# EnTitle Insurance Company

Title Number: TBT-62528  
Policy Number: OP82459

## SCHEDULE A -- OWNER'S POLICY

### LEGAL DESCRIPTION

ALL that certain plot, piece or parcel of land, situate, lying and being in the Town of Lewisboro, County of Westchester, State of New York, shown and designated as Lot No. 3 on a certain map entitled, "Subdivision Map of Sullivan Woods, situate in the Town of Lewisboro, Westchester County, New York", dated May 8, 1983, made by Bunney Associates, Land Surveyors and filed in the Westchester County Clerk's Office, Division of Land Records on September 16, 1981 as Map No. 20713, being more particularly bounded and described as follows:

BEGINNING at a point on the Northerly side of Waccabuc Road (Route 138) where the same is intersected by the division line between Lot Numbers 2 and 3 on the above mentioned map;

RUNNING THENCE along the Northerly side of Waccabuc Road, the following courses and distances:

- 1) North 70 degrees 09 minutes 40 seconds West, 258.00 feet;
- 2) Westerly on a curve to the left having a radius of 530.00 feet, a length of 329.46 feet; and
- 3) South 74 degrees 13 minutes 20 seconds West, 273.00 feet to a point;

RUNNING THENCE North 44 degrees 48 minutes West, 59.84 feet and North 35 degrees 32 minutes West, 62.96 feet to the division line between Lot Numbers 3 and 4 on the above mentioned map;

RUNNING THENCE along said division line, North 65 degrees 58 minutes 15 seconds East, 902.62 feet and North 77 degrees 30 minutes East, 237.00 feet to the division line between Lot Numbers 2 and 3 on the above mentioned map;

RUNNING THENCE along said division line, South 15 degrees 21 minutes 45 seconds West, 557.27 feet to the point or place of BEGINNING.

FOR  
CONVEYANCING  
ONLY

The policy to be issued under this report will insure the title to such buildings and improvements erected on the premises which by law constitute real property

TOGETHER with all the right, title and interest of the party of the first part, of, in and to the land lying in the street in front of and adjoining said premises.





**Evans** Associates  
Environmental Consulting, Incorporated



## WETLAND DELINEATION REPORT

**DATE:** November 24, 2020

**PROPERTY:** Gardner Property at 23 Waccabuc Road  
Town of Lewisboro (Hamlet of Goldens Bridge)  
Westchester County, New York

**REPORT BY:** Evans Associates Environmental Consulting, Inc.

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### INTRODUCTION

Wetlands and watercourses on the above-captioned property were delineated in accordance with Chapter 217, Wetlands and Watercourses, of the Code of the Town of Lewisboro, Article 24 (New York State Freshwater Wetlands Act) of the New York State Environmental Conservation Law (ECL), and the technical criteria in the 1987 Army Corps of Engineers (ACOE) Wetland Delineation Manual (TR-Y-87-1) as modified by the 2012 Regional Supplement for the Northcentral and Northeast Region (TR-12-1). The field delineation was conducted on November 4, 2020 by a Certified Professional Wetland Scientist and a Certified Professional Soil Scientist of Evans Associates Environmental Consulting, Inc. The temperature on the day of the site visit was ~58°F and skies were mostly sunny. Some vegetation data that were collected on a previous site visit, October 18, 2018, are listed in this report.

The approximately 6-acre subject property is located north of Waccabuc Road. The residential parcel is mainly wooded and contains a residence and driveway, and portions of a wetland and a watercourse.

The existing conditions of the wetlands and uplands on the property are discussed below, followed by a discussion of the regulatory jurisdictions of the wetlands and watercourse. Photos were taken on the day of the 2020 site visit.

162 Falls Road  
Bethany, CT 06524  
Tel: 203.393.0690



## EXISTING CONDITIONS

### Wetlands

The wetland on the property is located to the north of the residence and uplands on the property. The wetland comprises a mixture of forested, scrub-shrub, and emergent wetland types. The wetland on the property is part of a larger wetland, DEC-regulated Freshwater Wetland F-6, that continues off site to the north and east. A watercourse flows through the wetland from southwest to northeast.



**On-site wetlands with watercourse, facing approximately east.**

The wetland/upland boundary on the subject property was flagged using sequentially numbered, orange ribbon flagging depicting the words “Wetland Boundary.” Wetland flags were numbered A-1 through A-26 from east to west.

Vegetation in the wetlands includes red maple (*Acer rubrum*) and American elm (*Ulmus americana*) trees and saplings, winterberry (*Ilex verticillata*), spicebush (*Lindera benzoin*), and Japanese barberry (*Berberis thunbergii*) shrubs, dewberry (*Rubus sp.*) and poison ivy (*Toxicodendron radicans*) vines, along with Japanese stilt-grass (*Microstegium vimineum*), skunk cabbage (*Symplocarpus foetidus*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), clearweed (*Pilea pumila*), wood reed grass (*Cinna arundinacea*), New York fern (*Thelypteris noveboracensis*), iris (*Iris sp.*), avens (*Geum sp.*), wool grass (*Scirpus cyperinus*), and green ash (*Fraxinus pennsylvanica*) seedlings.





**On-site wetlands with watercourse, facing approximately west.**

The wetland areas are mapped as Natchaug muck and Sun loam.<sup>1</sup> Natchaug muck is a very deep, very poorly drained soil that is formed in highly decomposed woody and herbaceous organic materials in depressions. Sun loam is a poorly drained mineral soil that is very deep to bedrock, and is found in low-lying areas, in depressions and along drainageways.

The wetland and watercourse on the property are sustained by the interception of the groundwater table. These areas also receive runoff from upgradient areas. Evidence of wetland hydrology includes flowing or standing water, saturated soils, drainage patterns, and the presence of seeps.

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<sup>1</sup> Soils information taken from: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>.



## **Uplands**

The uplands on the property are mainly wooded with an abundance of Japanese barberry shrubs. Some landscaped areas are located immediately adjacent to the residence and driveway.

Vegetation in the wooded uplands includes American beech (*Fagus grandifolia*), Norway maple (*Acer platanoides*), sugar maple (*Acer saccharum*), and black cherry (*Prunus serotina*) trees and saplings, Japanese barberry, multiflora rose (*Rosa multiflora*), and winged euonymous (*Euonymus alatus*) shrubs, Japanese honeysuckle (*Lonicera japonica*) and poison ivy vines, along with Japanese stilt-grass, dock (*Rumex sp.*), aster (*Eurybia sp.*), and pachysandra (*Pachysandra terminalis*).

Soils in the uplands are mapped as Paxton loam. This soil is well drained and deep to bedrock, but moderately deep to a dense layer. Paxton loam is found on hilltops and hillsides, and is formed in glacial till.

## **REGULATORY JURISDICTIONS**


The wetland, including the watercourse, is regulated under the jurisdiction of the Town of Lewisboro and the New York State DEC. In addition to regulating the wetland, the Town of Lewisboro also regulates a 150-foot wetland buffer; the DEC regulates a 100-foot wetland Adjacent Area. The site is also under the jurisdiction of the New York City Department of Environmental Protection (DEP) because it is part of the Croton River Basin. The wetland, including the watercourse, is also federally regulated by the ACOE. There is no wetland buffer regulated under federal jurisdiction.



# NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland: F-6 as delineated by: Beth Evans, PWS on: November 4, 2020

DEC Staff: Sarah Faulstich Surveyor/Engineer: Robert S. Johnson  
Date Valid: 12/7/21 Expiration Date: 12/7/24

Date: 12/7/21 Seal: 

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). After five (5) years the boundary must be revalidated by DEC staff. Revalidation may include a new delineation and survey of the wetland boundary. Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

Area = 5.968 Acres.  
Deed Reference: Control No. 552723553  
Tax Designation: 12-11360-12  
Address: 23 Waccabuc Road  
Goldens Bridge, NY 10526  
Zone: R-2A

In accordance with the existing Code of Practice for Land Surveys as adopted by The New York State Association of Professional Land Surveyors, Inc.

Unauthorized alteration or addition to a survey map bearing a Licensed Land Surveyor's seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

All certifications are valid for this map and copies thereof only if said map or copies bear the impressed seal of the surveyor whose signature appears hereon.

The location of underground improvements or encroachments hereon, if any exist, are not certified or shown.

Septic system as-built not obtained from the Westchester County Department of Health.

Wetland boundary delineated November 4, 2020

By: Beth Evans PWS  
Evans Associates Environmental Consulting, Inc.  
162 Falls Road  
Bethany, CT 06574

R - 2A ZONE  
TOTAL AREA = 259,960 S.F.

BUILDING COVERAGE: 9% ALLOWABLE (23,396 S.F.)	EXISTING
RESIDENCE	1,756 S.F.
SHED	146
LARGE DECK	1,292
DECK OVER GARAGE	122
TOTAL BUILDING COVERAGE	3,322 S.F.
PERCENTAGE OF COVERAGE	1.28 %

SURVEYED: NOVEMBER 24, 2020  
MAP PREPARED: JANUARY 18, 2021

BY: Robert S. Johnson  
NEW YORK STATE LICENSED LAND SURVEYOR NO. 50037  
ROBERT S. JOHNSON, P.L.S.

SURVEY OF PROPERTY  
PREPARED FOR  
**TODD G. GARDNER**  
and  
**LAURA GARDNER**

Being Lot 3 as shown on a certain map entitled "Subdivision Map of Sullivan Woods, etc." said map filed in the Westchester County Clerk's Office, Division of Land Records, September 14, 1981 as Map No. 20713.

SITUATE IN THE  
TOWN OF LEWISBORO  
WESTCHESTER COUNTY, NEW YORK

SCALE: 1" = 40'

H. STANLEY JOHNSON AND COMPANY  
LAND SURVEYORS, P.C.  
42 SMITH AVENUE P.O. BOX 93  
MT. KISCO, N.Y. 10549  
TEL. 914-241-3872  
FAX. 914-241-0438

PREPARED FOR BUILDING DEPARTMENT PURPOSES ONLY

PREPARED BY: JRJ CHECKED BY: RSJ

JOB No. F20-104\_Survey



Application No.: 26-21SW  
Fee: \$155 Date: 11/30/21

**TOWN OF LEWISBORO  
STORMWATER PERMIT APPLICATION**

79 Bouton Road, South Salem, NY 10590  
Phone: (914) 763-5592  
Fax: (914) 875-9148

Project Address: 23 Waccabuc Road

Sheet: 21 Block: 11360 Lot(s): 12

Project Description (describe overall project including all proposed land development activities):  
Construction of an addition to an existing single family house. Construction of a deck, 15' x 30' inground pool, 8' x 8' hot tub, and pool patio. An existing wood deck will be removed for the deck and house addition.

Owner's Name: Todd and Laura Gardner Phone: (917) 446-0804

Owner's Address: 23 Waccabuc Road, Goldens Bridge 10526 Email: gardnerparents@gmail.com

Applicant's Name (if different): Same Phone: \_\_\_\_\_

Applicant's Address: \_\_\_\_\_ Email: \_\_\_\_\_

Agent's Name (if applicable): Bob Eberts, Cross River Architects, LLC Phone: 914-763-5887

Agent's Address: PO Box 384, Cross River, NY 10518 Email: RJE@CRARCH.COM

**TO BE COMPLETED BY OWNER/APPLICANT**

The approval authority is? (see §189-5 of the Town Code)

☐ Town Engineer and Stormwater Management Officer ☒ Planning Board

Is the project located within the NYCDEP Watershed? ☒ Yes ☐ No

Total area of proposed disturbance: ☒ 5,000 s.f. - < 1 acre ☐ ≥1 acre

Will the project require coverage under the NYSDEC General Permit for Stormwater Discharges from Construction Activity? ☐ Yes ☒ No ☐ Requires post-construction stormwater practice

Does the proposed action require any other permits/approvals from other agencies/departments? (Wetland Inspector, Planning Board, Town Board, Zoning Board of Appeals, Building Department, Town Highway, ACARC, NYSDEC, NYCDEP, WCDOH, NYSDOT, etc): Identify all other permits/approvals required: Wetland Permit, NYSDEC Article 24 permit, Building Permit

Note: The applicant, owner and/or agent is responsible for reviewing and complying with Chapter 189, "Stormwater Management and Erosion and Sediment Control," of the Town Code. This application must be submitted with all applicable plans, reports and documentation specified under §189-8, "SWPPP requirements," of the Town Code; all SWPPP's shall be prepared in conformance with Chapter 189 and shall be prepared by a qualified professional, as defined therein. The provision for obtaining a Town Stormwater Permit is in addition to the requirement of obtaining coverage under the SPDES General Permit for Stormwater Discharges from Construction Activity, if applicable.

Owner Signature: 

Date: 11/15/2021



**STORMWATER MANAGEMENT REPORT  
FOR 23 WACCABUC ROAD  
GOLDENS BRIDGE, NEW YORK**

Date: November 28, 2021

PREPARED BY: ALAN L. PILCH, PE, RLA  
ALP ENGINEERING & LANDSCAPE ARCHITECTURE, PLLC

Report Contents:

- 1) Existing Site Conditions
- 2) Stormwater Management Design Criteria and Plan
- 3) Stormwater Analysis
- 4) Stormwater Modeling – Peak Rate Attenuation

Figures

Supporting Documentation

Appendix A Hydrographs and Routings

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This Stormwater Management Report is submitted in support of the application of the owner of the above-noted property for the construction of a pool, pool patio, deck and house addition on the subject property. The site modifications include: (i) construction of a 511 square foot footprint addition to the existing house, (ii) removal of an existing deck from the north side of the house, (iii) construction of a new 856 s.f. deck on the northwest side of the house, and (iv) construction of a 15'x30' in ground pool and surrounding bluestone deck to the west of the existing house.

1) Existing Site Conditions:

The subject property is 259,960 square feet (5.968 acres) in size and is located on the north side of Waccabuc Road (see **Figure 1**). There is an existing 2 story residence on the lot, as well as an existing deck and shed. The property also contains some areas of the typical residential landscape of mown lawn and shrubs, although much of the lot is wooded or is brush.

The property is located in the Croton River East Basin watershed. The majority of the runoff from the property is conveyed generally to the north and east towards New York State Freshwater Wetland F-6 and an unnamed watercourse which discharges into the New Croton Reservoir.

*Soils* - According to the Web Soil Survey, the soils in the area of the proposed work are mapped as PnD - Paxton fine sandy loam, 15 to 25 percent slopes (see **Figure 2**). The wetland soils are mapped as NcA—Natchaug muck, 0 to 2 percent slopes.

According to the Web Soil Survey, Paxton fine sandy loam soils are very deep, well drained, and consists of fine sandy loam and gravelly fine sandy loam to a depth of 65 inches. These soils are classified as hydrologic soils group C. These soils typically have a depth to a restrictive feature



which is 20 to 39 inches in depth. Natchaug muck soils consist of muck to a depth of about 31", then silt loam and fine sandy loam to a depth of 79". The water table is near the surface year round. This soil is classified as being in hydrologic soils group D.

2) Stormwater Management Design Criteria and Plan

Since the runoff from the entire property drains to the north toward the wetland (regulated by the Town and State of New York) and an unnamed watercourse within the wetland, a design point along this watercourse just west of the eastern property line was selected since all of the runoff from the existing developed and the new areas of the property to be modified will be conveyed to this point. In this way, the modeling would quantify and compare the existing condition runoff to the future condition runoff at the design point.

3) Stormwater Analysis

Existing Condition - In the existing condition, one drainage area was defined.

*Existing Condition Drainage Area #1 (XDA-1)* is 111,651 square feet in size, consists of 6,406 square feet of impervious surfaces (house and driveway, as well as walkway to the front door of the house), with the remainder being mostly woods and some lawn. See **Figure 3** for the drawing depicting existing drainage area XDA-1 and the location of the design point.

Future Condition – In the future condition, three drainage areas were defined, as follows:

*Future Condition Drainage Area #1 (FDA-1)* is 3,118 square feet in size and consists of the pool and pool patio, the canopy over the new deck, and the proposed bioretention area for treatment purposes. A curve number of 86 was calculated for this drainage area.

*Future Condition Drainage Area #2 (FDA-2)* is 1,033 square feet in size and consists of the new house addition, and the proposed rain garden for treatment purposes. A curve number of 86 was calculated for this drainage area.

*Future Condition Drainage Area #3 (FDA-3)* is 107,499 square feet in size and consists of the remainder of the property that contributes runoff to the design point. A curve number of 74 was calculated for this drainage area.

With the proposed construction, the amount of impervious surfaces to the design point will increase from 6,406 square feet to 8,719 square feet, an increase of 2,313 square feet. The amount of semi-pervious surfaces (i.e., deck) will decrease from 1,298 s.f. to 1,042 s.f., a decrease of 256 s.f.

Stormwater Management Plan - The stormwater management plan for the property has been designed to meet the requirements of the Town of Lewisboro. To this end, the project will provide peak rate attenuation for all storm events up to the 25-year storm in one bioretention facility and



one rain garden. It is also proposed to direct at least 6" of pool drawdown water to proposed subsurface chambers, as is described below.

The runoff from the pool patio will be directed to slot drains which will surround the entire pool patio. Runoff from the canopy over a portion of the deck will be directed into roof drain leaders. A 6" diameter PVC pipe will convey the runoff into the bioretention facility which will be located about 65 feet to the west of the pool patio.

The runoff from the house addition will be conveyed from the roof drain leaders to a storm drainage pipe to a rain garden. The rain garden will be located about 60 feet to the northeast from the house addition.

#### 4) Stormwater Modeling – Peak Rate Attenuation

The peak rate of runoff has been calculated for the 1-year through 25-year storm events. The analysis was performed in accordance with the methodology of the United States Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service) publication *Urban Hydrology for Small Watersheds, Technical Release 55 (TR-55)*, 1986. To calculate the peak rate of runoff, the following information used in the analysis: (i) Runoff depths for the 24-hour design storms used in the calculations were as follows: 2.81" for the one-year storm, 5.06" for the ten-year storm, and 6.36" for the 25-year storm, based on the data from the Northeast Regional Climate Center for the property; (ii) A 24-hour rainfall duration was used in calculating the hydrographs, (iii) a Type III storm distribution was used in the analysis. Finally, hydrographs and pond routings were created using the computer program *HydroCAD* (ver. 10.00-25), by HydroCAD Software Solutions, LLC.

One bioretention facility and one rain garden will be installed to provide peak rate attenuation and water quality improvement of the runoff. The analysis shows that for all modeled storm events to the design point, the peak rate of runoff is less than or equal to the existing peak rate of runoff.

**Table 1**, Peak Rates of Runoff summarizes the peak rates of flow at the design point in the existing and future conditions for the modeled storms.

**Table 1. Peak Rates of Runoff to Design Point**

(all flows in cubic feet per second)

<i>Drainage Area/ Storm Interval</i>	<i>1 year</i>	<i>2 year</i>	<i>10 year</i>	<i>25 year</i>
<i>Existing Condition</i>				
<i>Flows to Design Point</i>	1.58	2.44	5.27	7.68
<i>Future Condition</i>				
<i>Flows to Design Point</i>	1.54	2.37	5.13	7.49



For pool drawdown purposes, 4 Cultec 280HD chambers are to be installed to the north of the proposed pool patio. Six inches of pool drawdown would result in a removal of (15 feet x 30 feet x 6") 225 cubic feet of water from the pool. The 4 Cultec 280HD chambers would have a storage volume of 335.4 cubic feet, well in excess of the drawdown volume

5) Summary:

The proposed stormwater management facilities to consist of one bioretention facility and one rain garden will provide peak rate attenuation of runoff across all of the modeled storm events. The installation of 4 Cultec 280HD chambers will accommodate the entire volume from 6" of pool drawdown within the chambers.



## ***FIGURES***



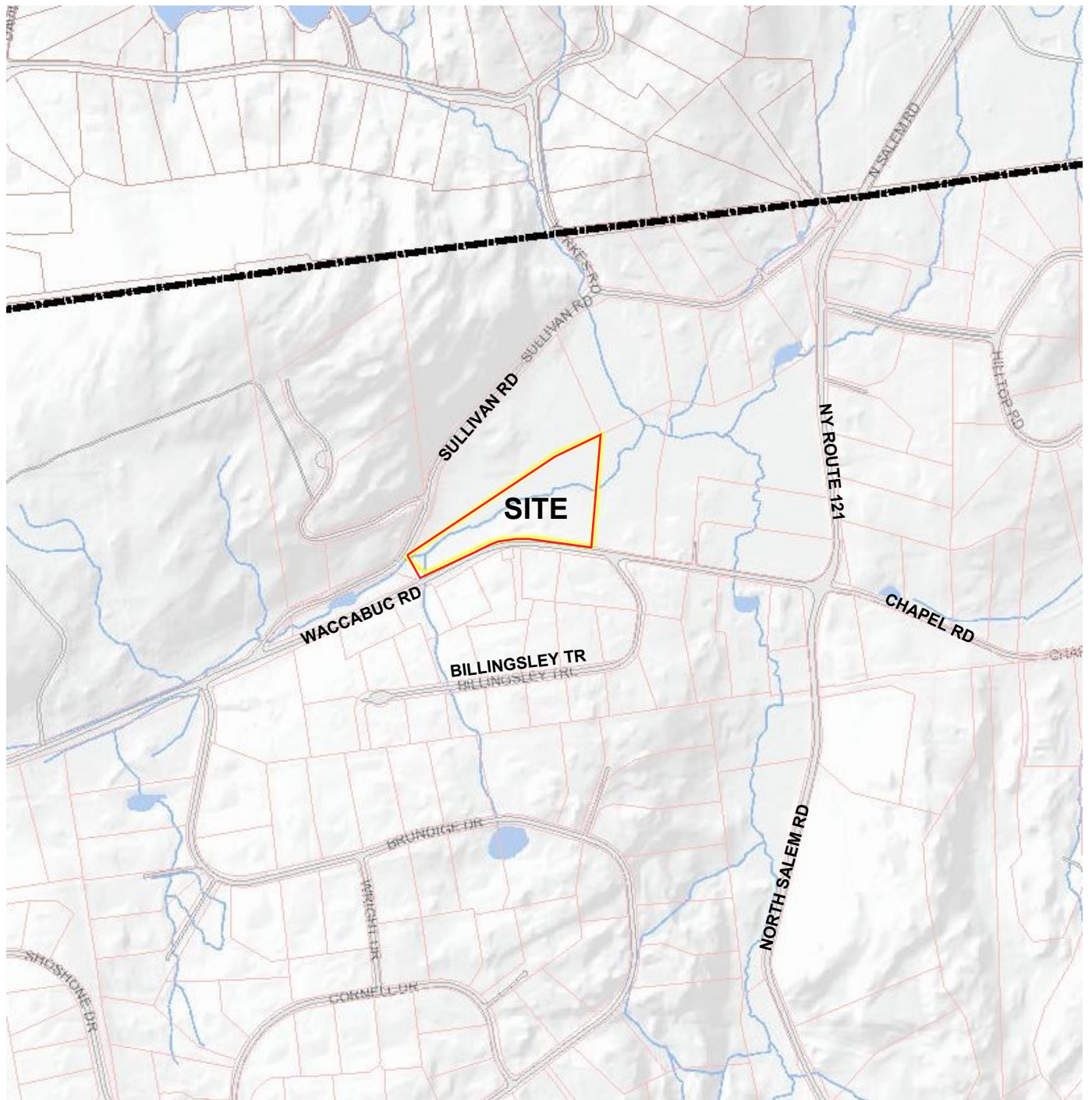
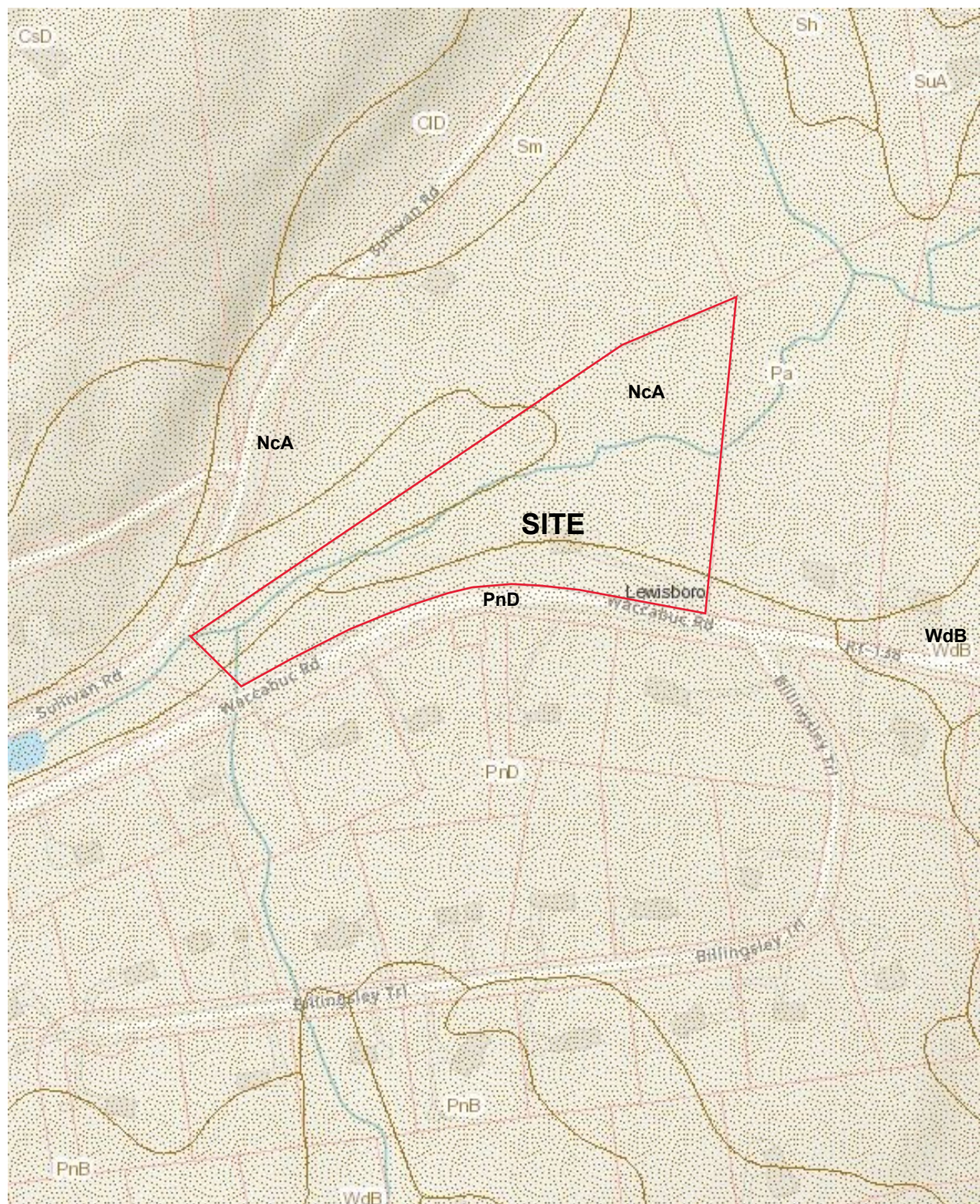


Figure 1  
**SITE LOCATION MAP**  
Scale: Not to Scale





**LEGEND:**

**PnD—Paxton fine sandy loam, 15 to 25 percent slopes**

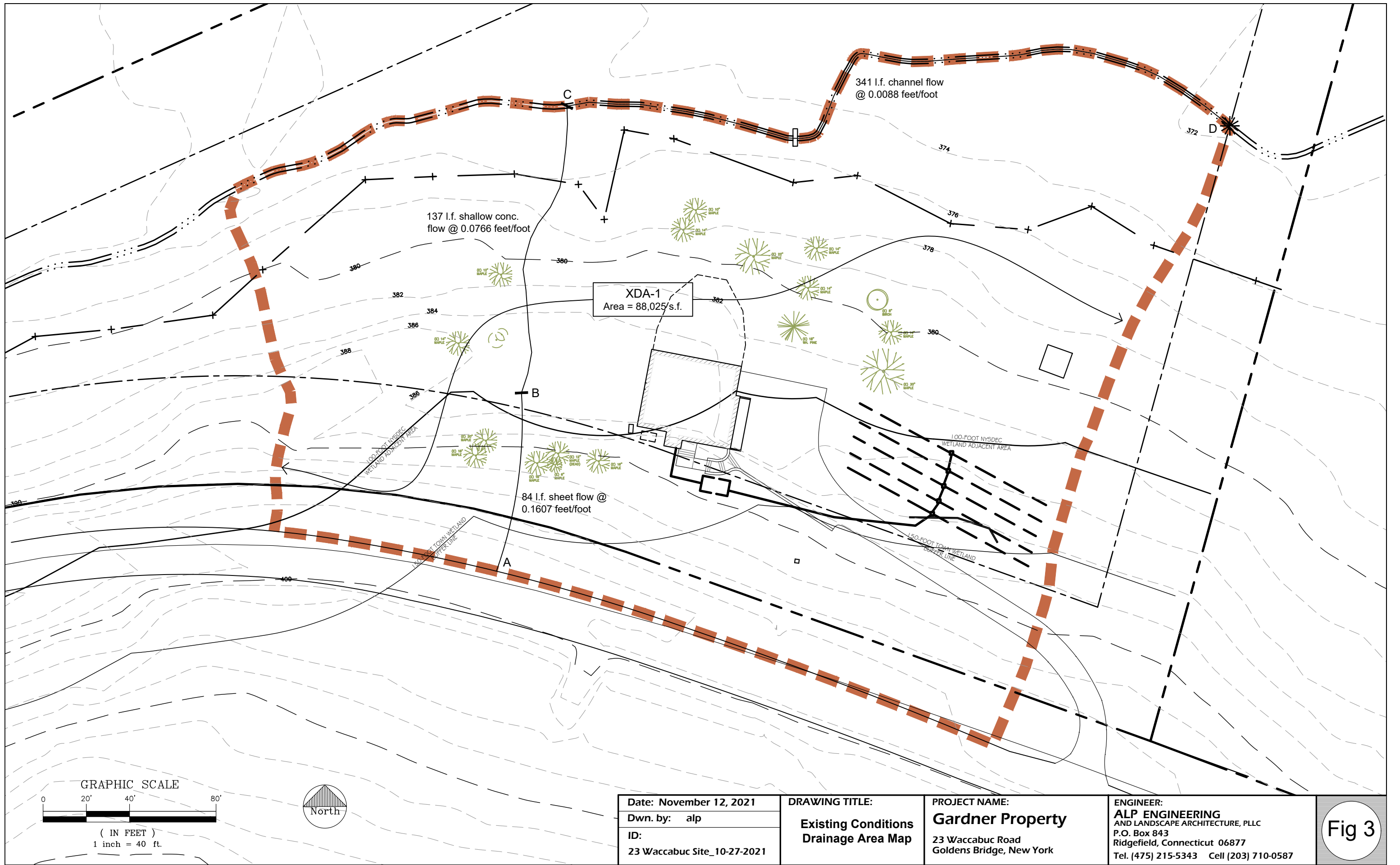
**NcA—Natchaug muck, 0 to 2 percent slopes**

*Figure 2*

***SOILS MAP***

*Scale: Not to Scale*





Date: November 12, 2021  
Dwn. by: alp  
ID:  
23 Waccabuc Site\_10-27-2021

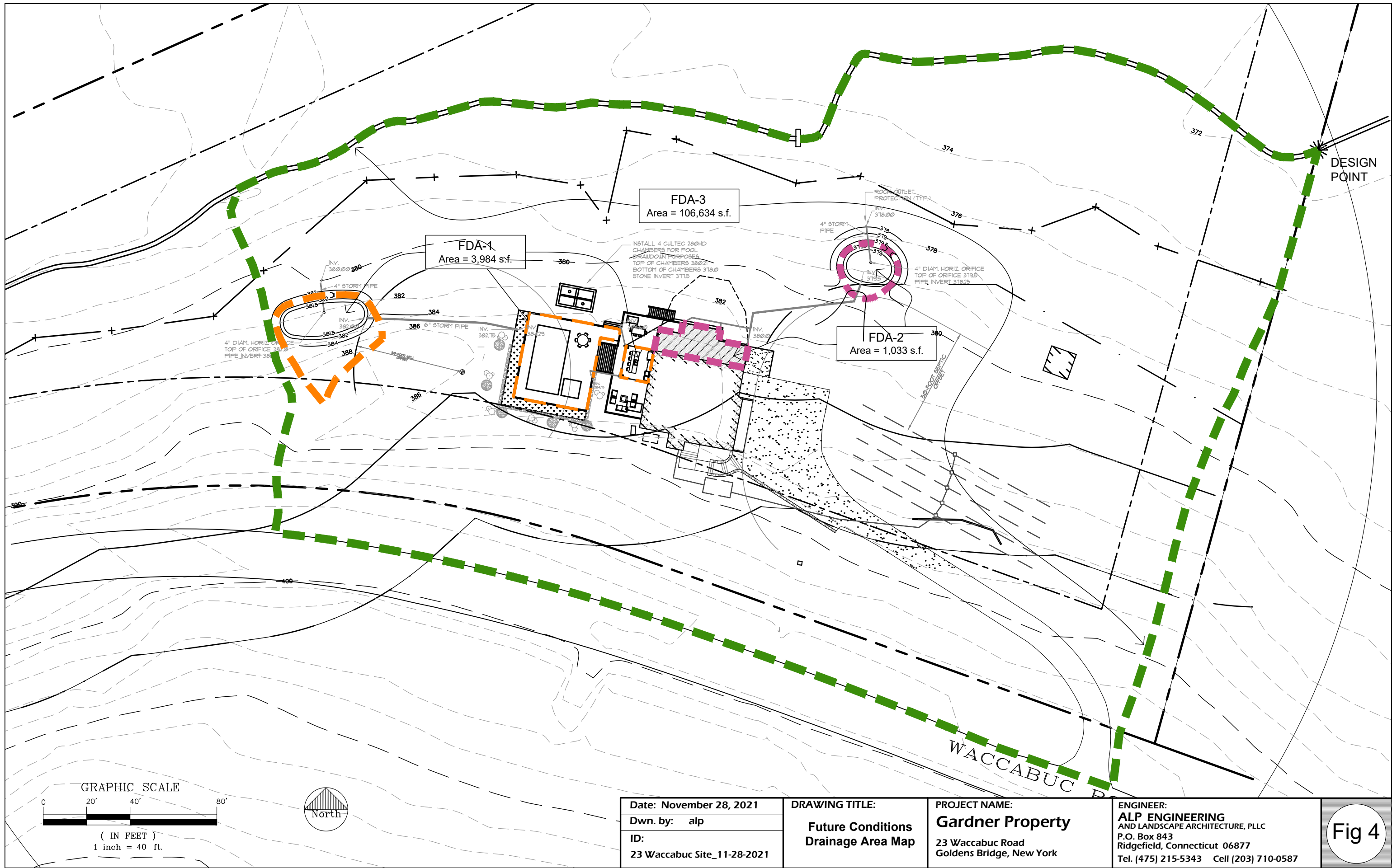
DRAWING TITLE:  
Existing Conditions  
Drainage Area Map

PROJECT NAME:  
Gardner Property  
23 Waccabuc Road  
Goldens Bridge, New York

ENGINEER:  
ALP ENGINEERING  
AND LANDSCAPE ARCHITECTURE, PLLC  
P.O. Box 843  
Ridgefield, Connecticut 06877  
Tel. (475) 215-5343 Cell (203) 710-0587

Fig 3







## ***SUPPORTING DOCUMENTATION***



**Table 1**  
**23 Waccabuc Road**  
**WATER QUALITY VOLUME (WQv) CALCULATION**

*Under the Watershed Regulations, the requirement is to capture and treat the runoff from the 1-year, 24 hour storm event which is equal to 2.79 inches of precipitation, or the water quality volume, whichever is greater. The following calculates the treatment volume of runoff from the 1-year storm (using TR-55 in accordance with the New York Stormwater Management Design Manual) and the Water Quality Volume - 1.5" of precipitation (using the 90% Rule).*

1-year, 24 hour precipitation =	2.81	inches
90% rule precipitation depth =	1.5	inches

	Area (in sq feet)	Area (in acres)	CN Value	Runoff Depth (inches)	1 yr, 24 hr storm Treatment Vol. (cu feet)	90% Rule Treatment Vol. (cu feet)
<i>Drainage Area</i>						
<i>FDA-1 TO BIORETENTION FACILITY</i>						
Pool and Pool Patio	1,419	0.033	98			
Canopy over Deck	195	0.004	98			
Lawn/landscape, good condition, HSG C	1,506	0.035	74			
TOTALS / WEIGHTED CN	3,120	0.072	86	1.50	390	201

New Impervious Surfaces =	1,614	sq feet	
Existing Impervious Surfaces =	0	sq feet	
TOTAL Impervious Surfaces =	1,614	sq feet	
% Impervious =	51.7		
Rv =	0.52		
Water Quality Volume, WQv =	0.009	acre-feet	1 year storm
Water Quality Volume, WQv =	0.005	acre-feet	90% Rule

	Area (in sq feet)	Area (in acres)	CN Value	Runoff Depth (inches)	1 yr, 24 hr storm Treatment Vol. (cu feet)	90% Rule Treatment Vol. (cu feet)
<i>Drainage Area</i>						
<i>FDA-2 TO RAIN GARDEN</i>						
House Addition Roof	511	0.012	98			
Lawn/landscape, good condition, HSG C	522	0.012	74			
TOTALS / WEIGHTED CN	1,033	0.024	86	1.50	129	64

New Impervious Surfaces =	511	sq feet	
Existing Impervious Surfaces =	0	sq feet	
TOTAL Impervious Surfaces =	511	sq feet	
% Impervious =	49.5		
Rv =	0.50		
Water Quality Volume, WQv =	0.003	acre-feet	1 year storm
Water Quality Volume, WQv =	0.001	acre-feet	90% Rule



**Table 2**  
**23 Waccabuc Road**  
**BIORETENTION WATER QUALITY TREATMENT CALCULATIONS**

Using equations provided in the 2015 New York State Stormwater Management Design Manual chapter 6, filtering systems, page 6-50 and 6-51:

**1. WQv Calculation:**

<b>WQv =</b>	<b>390 cubic feet</b>	<i>as per calculation</i>
	<b>0.009 acre feet, or</b>	<i>as per calculation</i>

**2. Determine Size of Bioretention Area**

Using the equation,  $Af = (WQv)(df)/[(k)(hf+df)(tf)]$

Where,

WQv = water quality volume, in cubic feet  
Af = surface area of filter bed in sq feet  
df = filter bed depth in feet  
k = coefficient of permeability  
hf = average height of water above filter bed in feet  
tf = design filter bed drain time in days

Notes:

Use 1.67 days for filter bed drain time for sand filters; 2 days for bioretention

Factors used for k,

sand - 3.5 feet/day
peat - 2.0 feet/day
leaf compost - 8.7 feet per day
bioretention soil - 0.5 feet per day

	In %	Coeff of Permeability
PLANTING SOIL MIX:		
Sand	80.0	3.5
Bioretention Soil	20.0	0.5
k value =		2.9

Therefore, with the following:

<b>WQv =</b>	0.009 acre feet	<i>Remarks</i>
<b>df =</b>	4 feet	<i>calculated</i>
<b>k =</b>	2.9 feet/day	<i>as per Sec. 6.4.4 of 2010 SMDM</i>
<b>hf =</b>	0.25 feet	<i>as per Sec. 6.4.4 of 2010 SMDM</i>
<b>tf =</b>	2 days	<i>as per Sec. 6.4.4 of 2010 SMDM</i>

<b>Af =</b>	63 sq feet	<i>calculated as per equation</i>
-------------	------------	-----------------------------------

Bioretention filter area req'd, ABF =	63 sq feet	<i>required filter surface area</i>
Bioretention filter area provided =	603 sq feet	<i>provided surface filter area as per HydroCAD</i>



**Table 2**  
**23 Waccabuc Road**  
**BIORETENTION WATER QUALITY TREATMENT CALCULATIONS**

Equations as per 2015 NYS SMDM:

$$WQv \leq VSM + VDL + (DP \times ARG)$$

$$VSM = ABF \times DSM \times nSM$$

$$VDL \text{ (optional)} = ABF \times DDL \times nDL$$

where:

VSM = volume of the soil media [cubic feet]

VDL = volume of the gravel drainage layer [cubic feet]

ARG = surface area [square feet]

DSM = depth of the soil media, typically\* 1.0 to 1.5 [feet]

DDL = depth of the drainage layer, minimum 0.5 [feet]

DP = depth of ponding above surface, maximum 0.5 feet [feet]

nSM = porosity of the soil media ( $\geq 20\%$ )

nDL = porosity of the drainage layer ( $\geq 40\%$ )

WQv = Water Quality Volume [cubic feet], as defined in Chapter 4

		<u>Remarks</u>
Surface Area of Bioretention Facility, ABF =	603 sq feet	<i>as per design</i>
Depth of the Soil Media, DSM =	2.5 foot	<i>as per design</i>
Porosity of the Soil Media, nSM =	20 %	<i>typical</i>
Depth of the Gravel Drainage Layer =	0.5 foot	<i>as per design</i>
Porosity of the Drainage Layer, nDL =	40 %	<i>typical</i>
Depth of Ponding above Surface =	0.50 feet	<i>as per design</i>
Volume Available in Soil Media, VSM =	302 cubic feet	<i>calculated</i>
Volume of Gravel Drainage Layer, VDL =	121 cubic feet	<i>calculated</i>
WQv Calculated =	390 cubic feet	<i>calculated</i>
WQv <= VSM + VDL + (DP x ABF) =	724 cubic feet	<i>calculated</i>

Since the WQv is less than the equation above, the design is acceptable.



**Table 3**  
**23 Waccabuc Road**  
**RAIN GARDEN WATER QUALITY TREATMENT CALCULATIONS**

Parameters as per 2015 NYS Stormwater Management Design Manual

Equations as per 2015 NYS SMDM:

$$WQv \leq VSM + VDL + (DP \times ARG)$$

$$VSM = ARG \times DSM \times nSM$$

$$VDL \text{ (optional)} = ARG \times DDL \times nDL$$

where:

VSM = volume of the soil media [cubic feet]

VDL = volume of the gravel drainage layer [cubic feet]

ARG = surface area [square feet]

DSM = depth of the soil media, typically\* 1.0 to 1.5 [feet]

DDL = depth of the drainage layer, minimum 0.5 [feet]

DP = depth of ponding above surface, maximum 0.5 feet [feet]

nSM = porosity of the soil media ( $\geq 20\%$ )

nDL = porosity of the drainage layer ( $\geq 40\%$ )

WQv = Water Quality Volume [cubic feet], as defined in Chapter 4

		<u>Remarks</u>
Surface Area of Rain Garden, ARG =	346 sq feet	as per design
Depth of the Soil Media, DSM =	1.5 foot	as per design
Porosity of the Soil Media, nSM =	20 %	typical
Depth of the Gravel Drainage Layer =	0.5 foot	as per design
Porosity of the Drainage Layer, nDL =	40 %	typical
Depth of Ponding above Surface =	0.50 feet	as per design
Volume Available in Soil Media, VSM =	104 cubic feet	calculated
Volume of Gravel Drainage Layer, VDL =	69 cubic feet	calculated
WQv Calculated =	129 cubic feet	calculated
WQv <= VSM + VDL + (DP x ARG) =	346 cubic feet	calculated

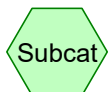
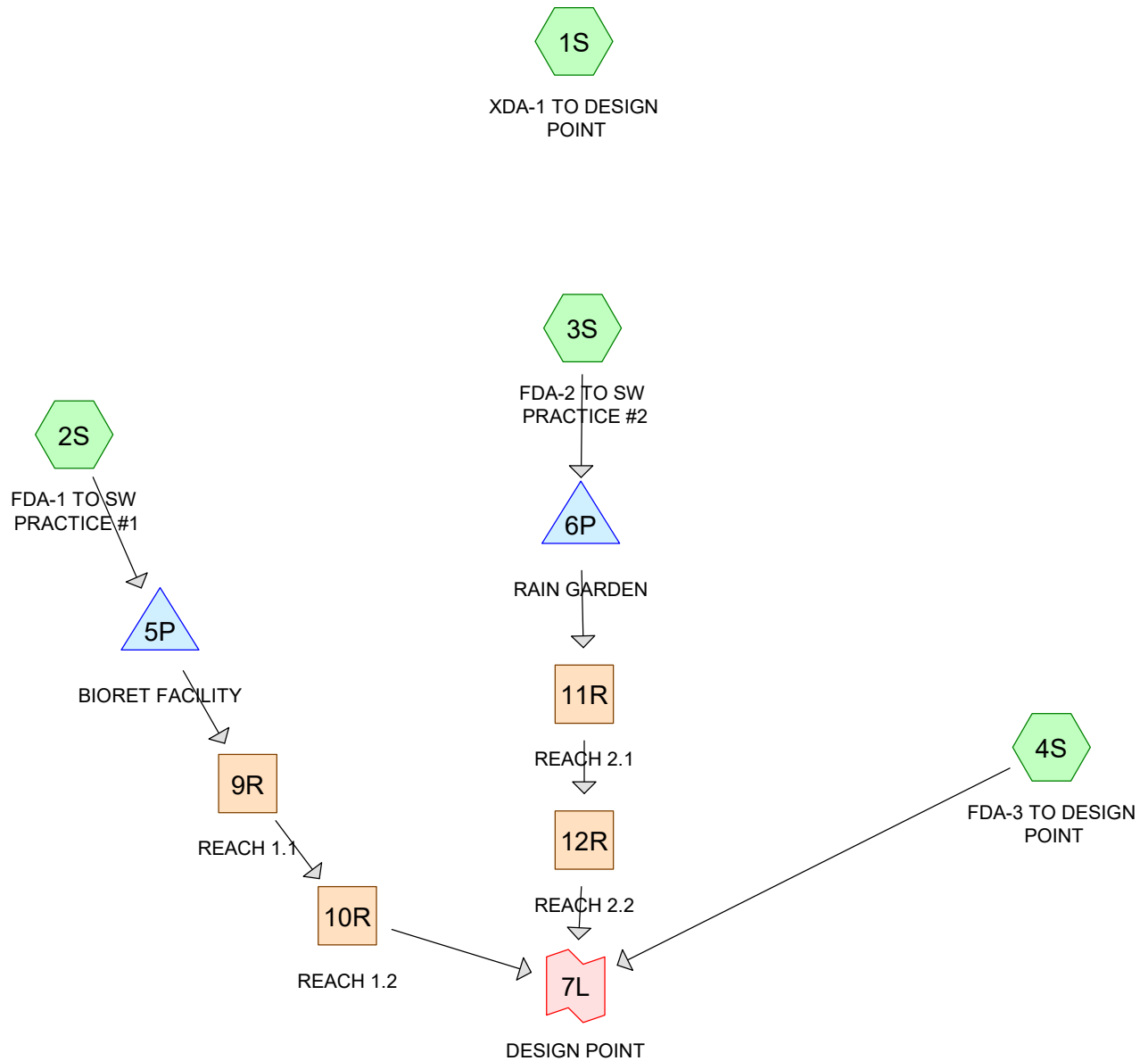
Since the WQv is less than the equation above, the design is acceptable.



***Appendix A***

***Stormwater Management Report  
Hydrographs and Routings***

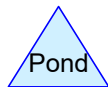




Subcat



Reach



Pond



Link

# **Routing Diagram for 23 Waccabuc Rd SW Plan\_11-28-2021**

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## 23 Waccabuc Rd SW Plan\_11-28-2021

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### Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type III 24-hr		Default	24.00	1	2.81	2
2	2-year	Type III 24-hr		Default	24.00	1	3.39	2
3	10-year	Type III 24-hr		Default	24.00	1	5.06	2
4	25-year	Type III 24-hr		Default	24.00	1	6.36	2



## 23 Waccabuc Rd SW Plan\_11-28-2021

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### Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.394	74	>75% Grass cover, Good, HSG C (1S, 2S, 3S, 4S)
0.004	98	Canopy over Deck, HSG B (2S)
0.024	96	Deck (use Gravel surface), HSG C (4S)
0.030	89	Gravel roads, HSG C (1S)
0.033	98	Pool & Pool Patio, HSG C (2S)
0.306	98	Roofs, HSG C (1S, 3S, 4S)
3.301	70	Woods, Good, HSG C (1S, 4S)
1.035	77	Woods, Good, HSG D (1S, 4S)
<b>5.126</b>	<b>74</b>	<b>TOTAL AREA</b>



## 23 Waccabuc Rd SW Plan\_11-28-2021

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### Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.394	0.000	0.000	0.394	>75% Grass cover, Good	1S, 2S, 3S, 4S
0.000	0.004	0.000	0.000	0.000	0.004	Canopy over Deck	2S
0.000	0.000	0.024	0.000	0.000	0.024	Deck (use Gravel surface)	4S
0.000	0.000	0.030	0.000	0.000	0.030	Gravel roads	1S
0.000	0.000	0.033	0.000	0.000	0.033	Pool & Pool Patio	2S
0.000	0.000	0.306	0.000	0.000	0.306	Roofs	1S, 3S, 4S
0.000	0.000	3.301	1.035	0.000	4.336	Woods, Good	1S, 4S
<b>0.000</b>	<b>0.004</b>	<b>4.087</b>	<b>1.035</b>	<b>0.000</b>	<b>5.126</b>	<b>TOTAL AREA</b>	



**23 Waccabuc Rd SW Plan\_11-28-2021***Type III 24-hr 1-year Rainfall=2.81"*

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Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 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: XDA-1 TO DESIGN** Runoff Area=111,651 sf 5.74% Impervious Runoff Depth=0.79"  
Flow Length=621' Tc=16.3 min CN=74 Runoff=1.58 cfs 0.169 af

**Subcatchment 2S: FDA-1 TO SW PRACTICE** Runoff Area=3,119 sf 51.72% Impervious Runoff Depth=1.50"  
Tc=6.0 min CN=86 Runoff=0.13 cfs 0.009 af

**Subcatchment 3S: FDA-2 TO SW PRACTICE** Runoff Area=1,033 sf 49.47% Impervious Runoff Depth=1.50"  
Tc=6.0 min CN=86 Runoff=0.04 cfs 0.003 af

**Subcatchment 4S: FDA-3 TO DESIGN** Runoff Area=107,499 sf 5.96% Impervious Runoff Depth=0.79"  
Flow Length=626' Tc=15.8 min CN=74 Runoff=1.54 cfs 0.162 af

**Reach 9R: REACH 1.1** Avg. Flow Depth=0.00' Max Vel=0.20 fps Inflow=0.01 cfs 0.003 af  
n=0.050 L=62.0' S=0.0968 '/' Capacity=2.07 cfs Outflow=0.01 cfs 0.003 af

**Reach 10R: REACH 1.2** Avg. Flow Depth=0.02' Max Vel=0.14 fps Inflow=0.01 cfs 0.003 af  
n=0.070 L=330.0' S=0.0091 '/' Capacity=1.52 cfs Outflow=0.01 cfs 0.003 af

**Reach 11R: REACH 2.1** Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af  
n=0.050 L=89.0' S=0.0618 '/' Capacity=1.65 cfs Outflow=0.00 cfs 0.000 af

**Reach 12R: REACH 2.2** Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af  
n=0.070 L=147.0' S=0.0034 '/' Capacity=0.93 cfs Outflow=0.00 cfs 0.000 af

**Pond 5P: BIORET FACILITY** Peak Elev=382.02' Storage=281 cf Inflow=0.13 cfs 0.009 af  
Outflow=0.01 cfs 0.003 af

**Pond 6P: RAIN GARDEN** Peak Elev=379.42' Storage=129 cf Inflow=0.04 cfs 0.003 af  
Outflow=0.00 cfs 0.000 af

**Link 7L: DESIGN POINT** Inflow=1.54 cfs 0.165 af  
Primary=1.54 cfs 0.165 af

**Total Runoff Area = 5.126 ac Runoff Volume = 0.343 af Average Runoff Depth = 0.80"**  
**93.31% Pervious = 4.783 ac 6.69% Impervious = 0.343 ac**



### Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT

[47] Hint: Peak is 105% of capacity of segment #3

Runoff = 1.58 cfs @ 12.25 hrs, Volume= 0.169 af, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 1-year Rainfall=2.81"

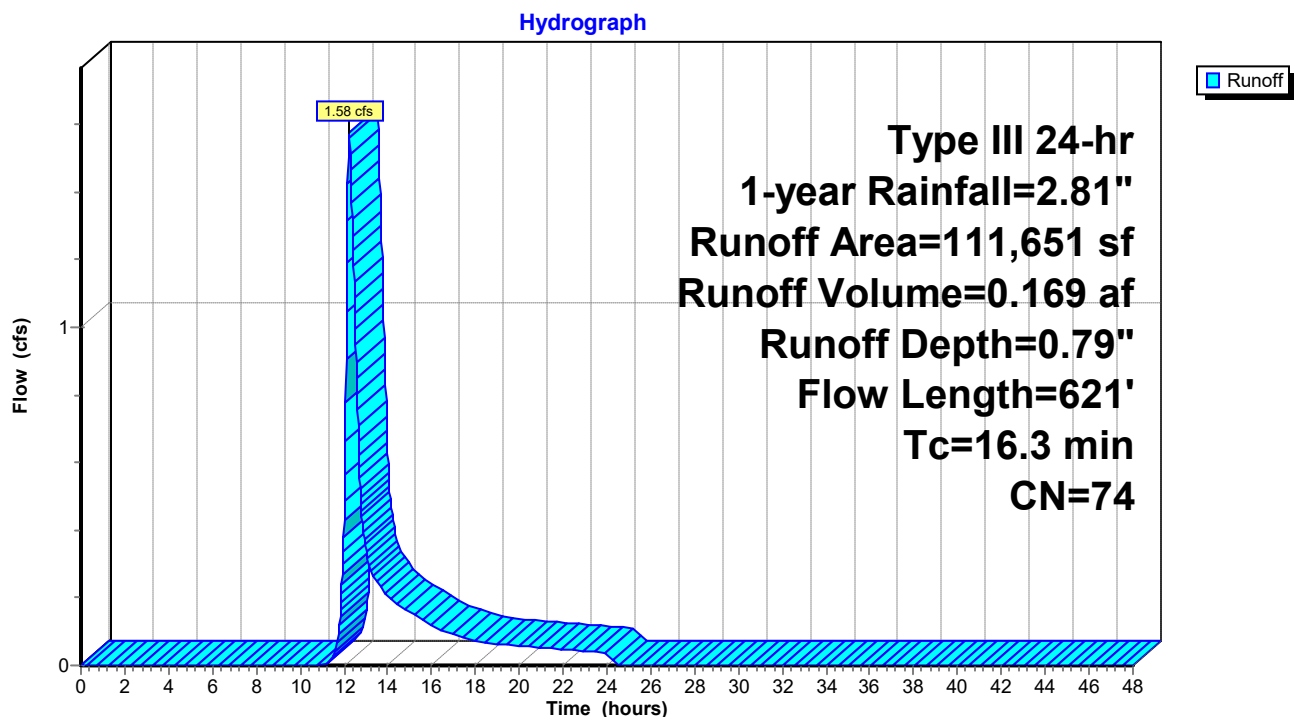
Area (sf)	CN	Description
6,406	98	Roofs, HSG C
1,298	89	Gravel roads, HSG C
74,065	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,340	74	>75% Grass cover, Good, HSG C
111,651	74	Weighted Average
105,245		94.26% Pervious Area
6,406		5.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	84	0.1607	0.18		<b>Sheet Flow, A-B</b> Woods: Light underbrush n= 0.400 P2= 3.39"
1.7	137	0.0766	1.38		<b>Shallow Concentrated Flow, B-C</b> Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b> Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.070 Sluggish weedy reaches w/pools
16.3	621	Total			



**Subcatchment 1S: XDA-1 TO DESIGN POINT**





### Summary for Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af, Depth= 1.50"  
Routed to Pond 5P : BIORET FACILITY

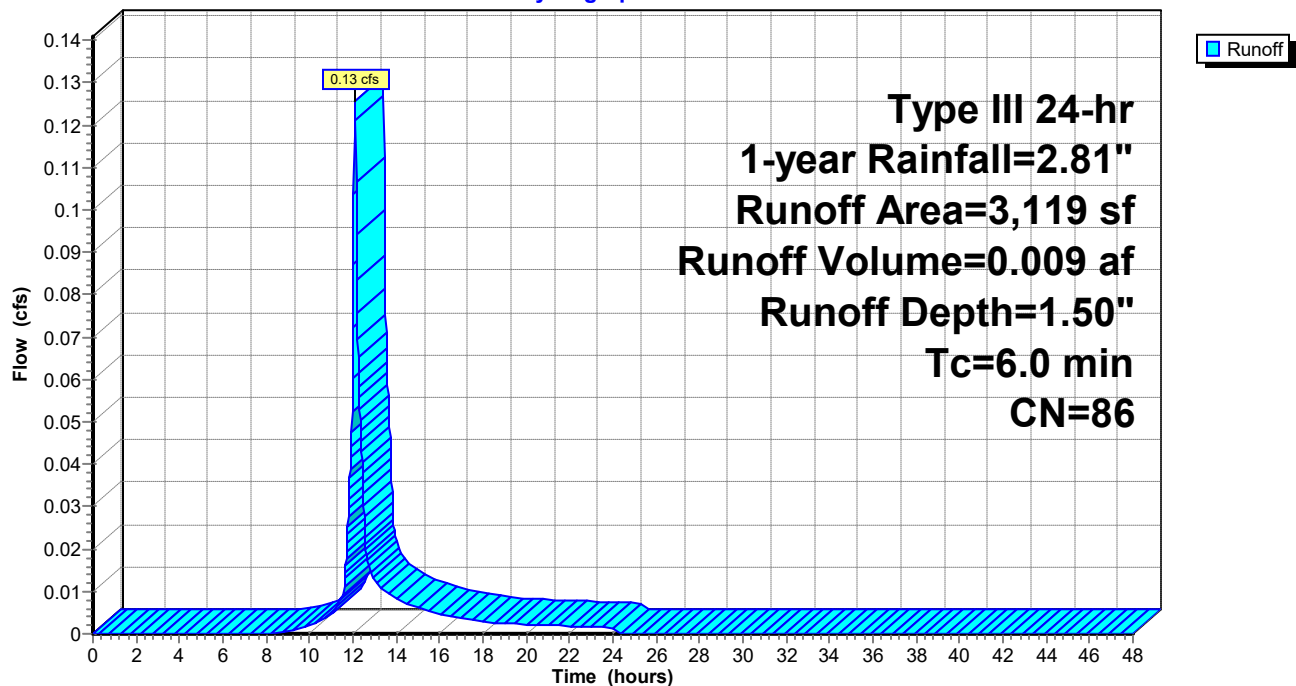
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 1-year Rainfall=2.81"

	Area (sf)	CN	Description
*	1,418	98	Pool & Pool Patio, HSG C
	1,506	74	>75% Grass cover, Good, HSG C
*	195	98	Canopy over Deck, HSG B
	3,119	86	Weighted Average
	1,506		48.28% Pervious Area
	1,613		51.72% Impervious Area

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

### Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Hydrograph





### Summary for Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Runoff = 0.04 cfs @ 12.09 hrs, Volume= 0.003 af, Depth= 1.50"  
Routed to Pond 6P : RAIN GARDEN

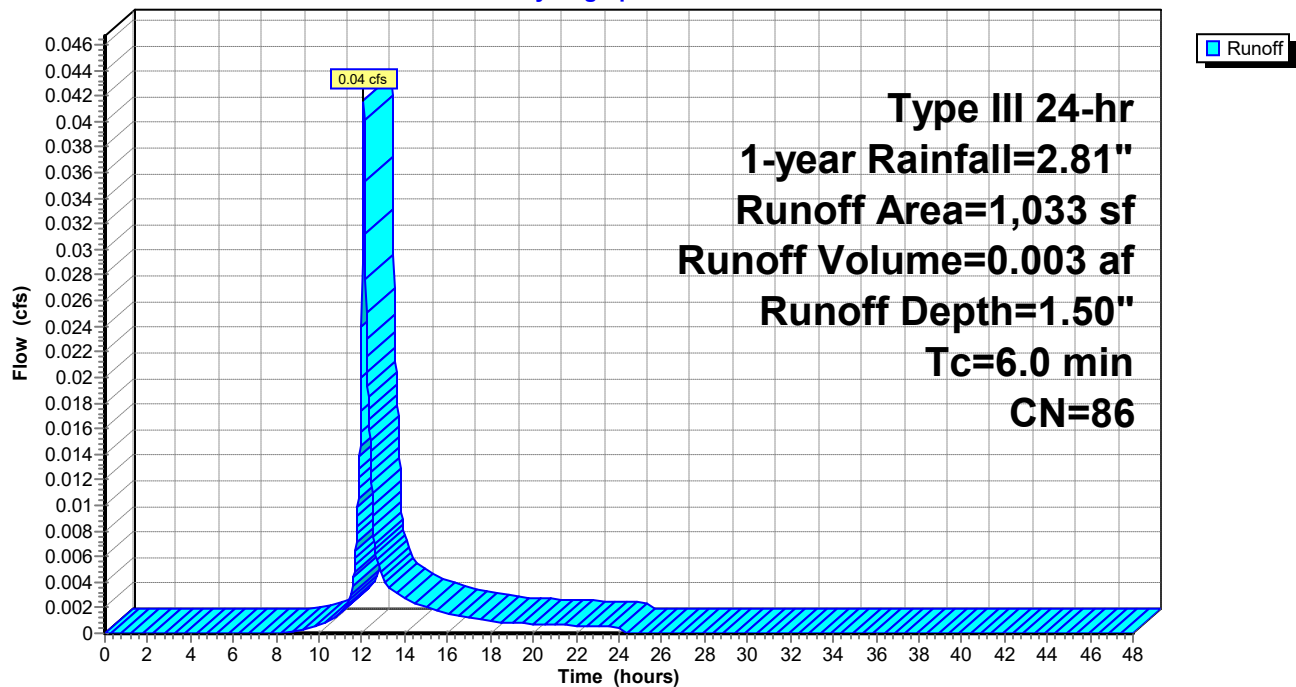
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 1-year Rainfall=2.81"

Area (sf)	CN	Description
511	98	Roofs, HSG C
522	74	>75% Grass cover, Good, HSG C
1,033	86	Weighted Average
522		50.53% Pervious Area
511		49.47% Impervious Area

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

### Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Hydrograph





### Summary for Subcatchment 4S: FDA-3 TO DESIGN POINT

[47] Hint: Peak is 103% of capacity of segment #3

Runoff = 1.54 cfs @ 12.24 hrs, Volume= 0.162 af, Depth= 0.79"  
Routed to Link 7L : DESIGN POINT

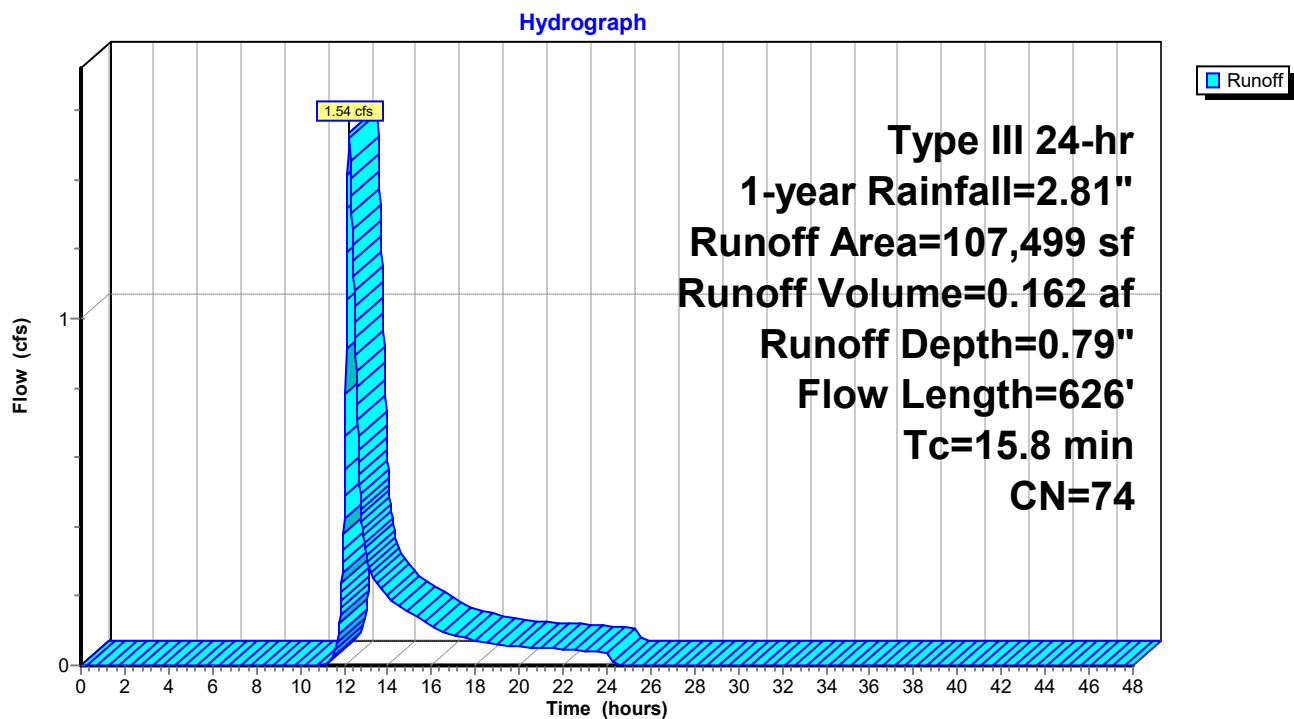
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 1-year Rainfall=2.81"

Area (sf)	CN	Description
6,406	98	Roofs, HSG C
* 1,042	96	Deck (use Gravel surface), HSG C
69,720	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,789	74	>75% Grass cover, Good, HSG C
107,499	74	Weighted Average
101,093		94.04% Pervious Area
6,406		5.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	79	0.1772	0.18		<b>Sheet Flow, A-B</b>
					Woods: Light underbrush n= 0.400 P2= 3.39"
1.9	147	0.0680	1.30		<b>Shallow Concentrated Flow, B-C</b>
					Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b>
					Bot.W=2.00' D=0.50' Z= 2.0 ' / ' Top.W=4.00'
					n= 0.070
15.8	626	Total			



**Subcatchment 4S: FDA-3 TO DESIGN POINT**





### Summary for Reach 9R: REACH 1.1

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 0.45" for 1-year event  
 Inflow = 0.01 cfs @ 14.82 hrs, Volume= 0.003 af  
 Outflow = 0.01 cfs @ 14.96 hrs, Volume= 0.003 af, Atten= 0%, Lag= 8.3 min  
 Routed to Reach 10R : REACH 1.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.20 fps, Min. Travel Time= 5.1 min  
 Avg. Velocity= 0.14 fps, Avg. Travel Time= 7.5 min

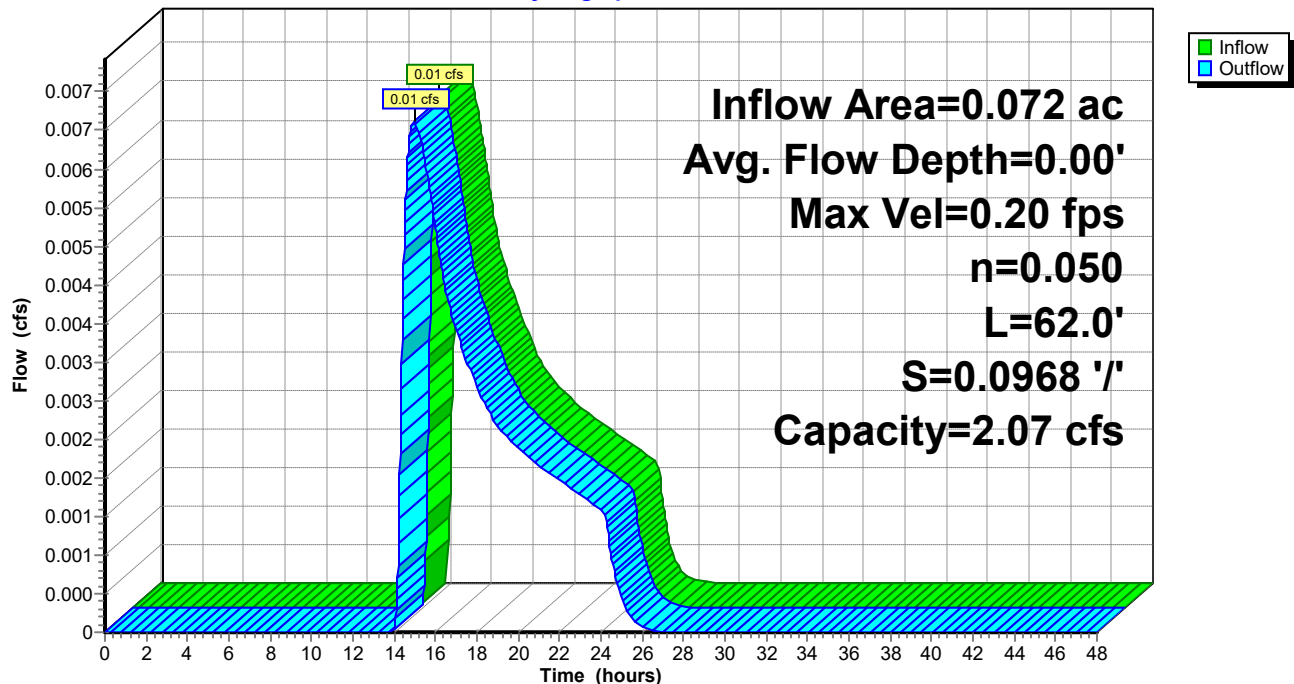
Peak Storage= 2 cf @ 14.87 hrs  
 Average Depth at Peak Storage= 0.00' , Surface Width= 10.06'  
 Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 2.07 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds  
 Side Slope Z-value= 10.0 ' ' Top Width= 12.00'  
 Length= 62.0' Slope= 0.0968 ' '  
 Inlet Invert= 381.00', Outlet Invert= 375.00'



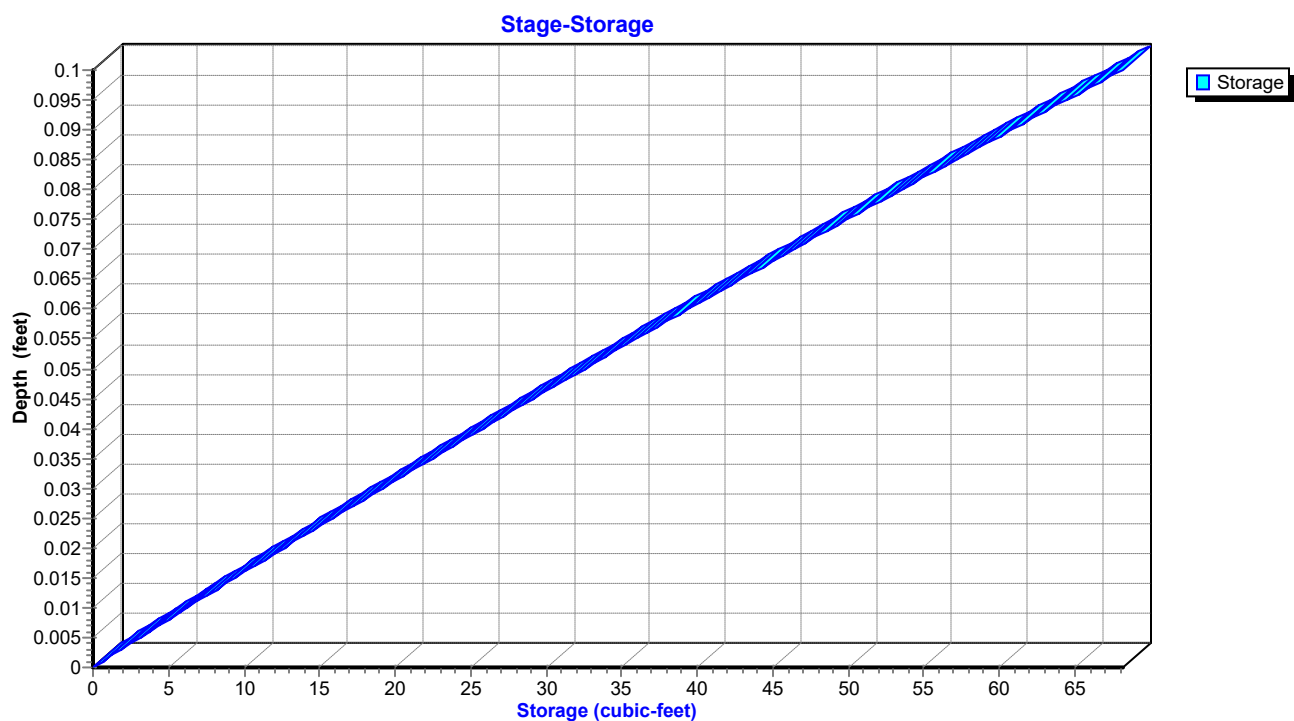
### Reach 9R: REACH 1.1

#### Hydrograph





### Reach 9R: REACH 1.1





**Summary for Reach 10R: REACH 1.2**

[62] Hint: Exceeded Reach 9R OUTLET depth by 0.02' @ 15.78 hrs

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 0.45" for 1-year event  
Inflow = 0.01 cfs @ 14.96 hrs, Volume= 0.003 af  
Outflow = 0.01 cfs @ 16.34 hrs, Volume= 0.003 af, Atten= 13%, Lag= 82.7 min  
Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Max. Velocity= 0.14 fps, Min. Travel Time= 38.0 min  
Avg. Velocity= 0.09 fps, Avg. Travel Time= 62.7 min

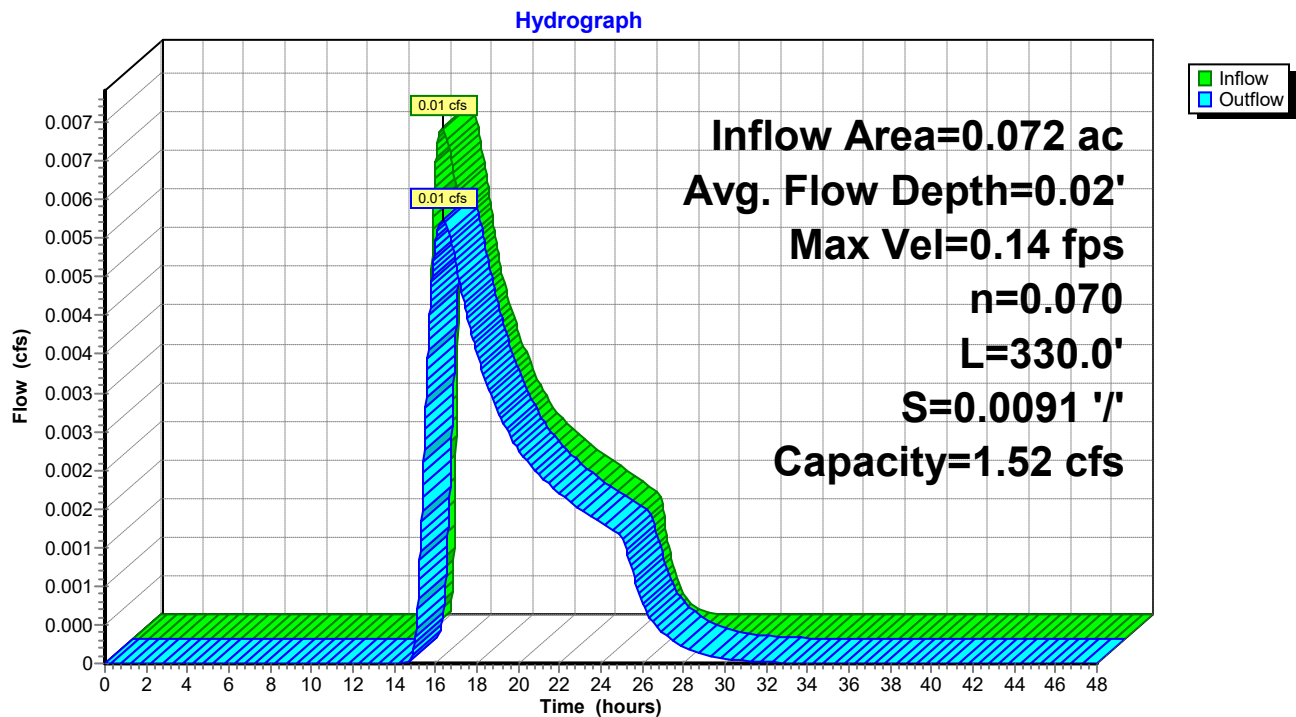
Peak Storage= 13 cf @ 15.70 hrs  
Average Depth at Peak Storage= 0.02', Surface Width= 2.08'  
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 1.52 cfs

2.00' x 0.50' deep channel, n= 0.070  
Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
Length= 330.0' Slope= 0.0091 '/'  
Inlet Invert= 375.00', Outlet Invert= 372.00'

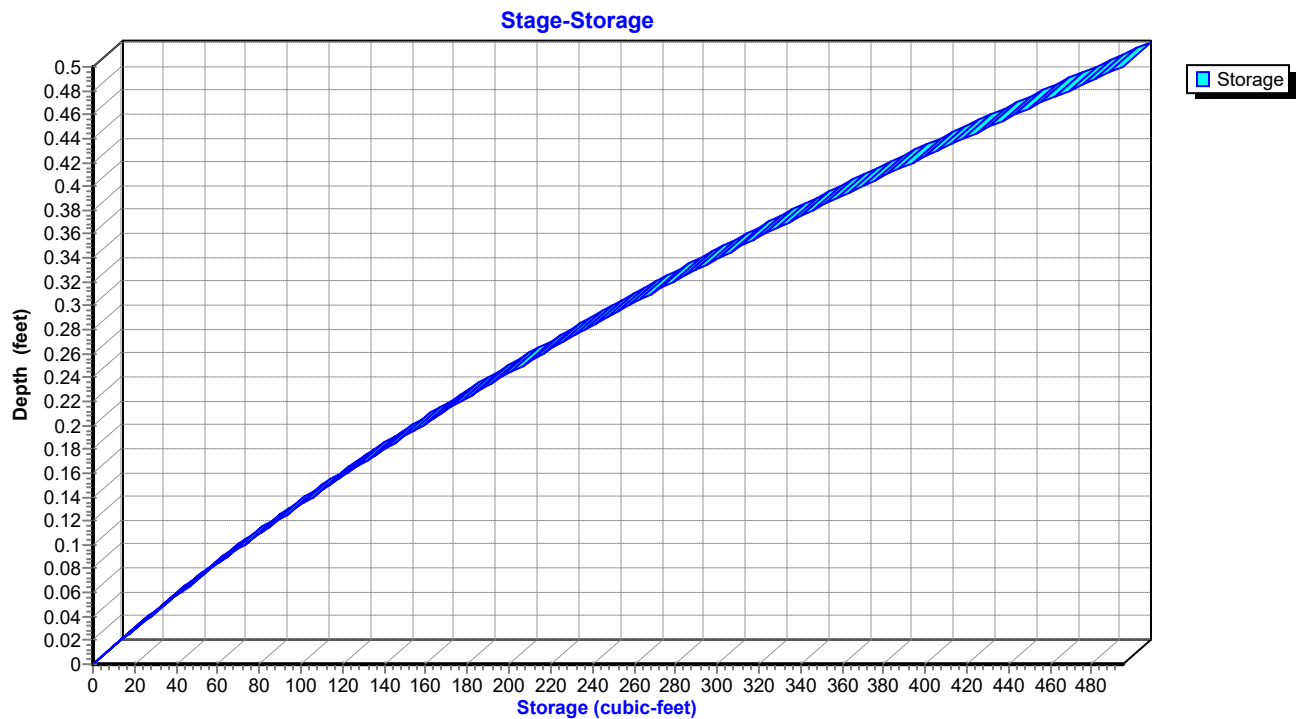




### Reach 10R: REACH 1.2



### Reach 10R: REACH 1.2





### Summary for Reach 11R: REACH 2.1

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 0.00" for 1-year event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
 Routed to Reach 12R : REACH 2.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min  
 Avg. Velocity= 0.00 fps, Avg. Travel Time= 0.0 min

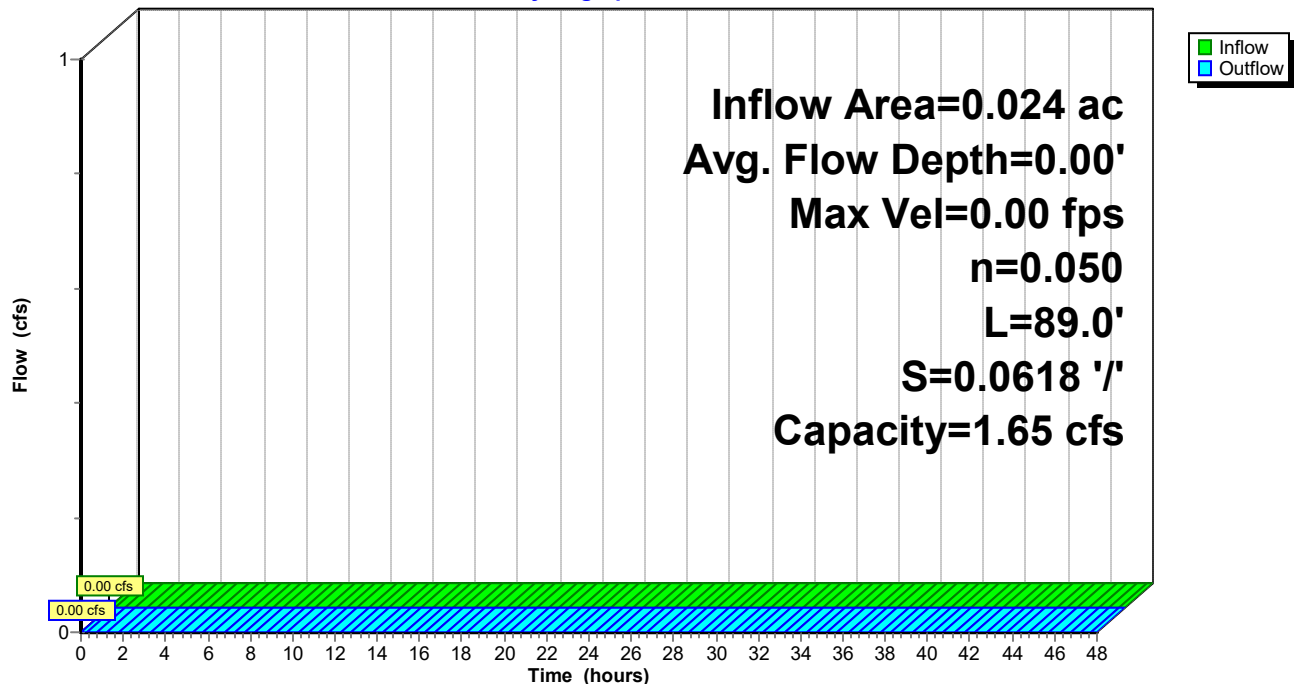
Peak Storage= 0 cf @ 0.00 hrs  
 Average Depth at Peak Storage= 0.00'  
 Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 1.65 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds  
 Side Slope Z-value= 10.0 '/' Top Width= 12.00'  
 Length= 89.0' Slope= 0.0618 '/'  
 Inlet Invert= 378.00', Outlet Invert= 372.50'



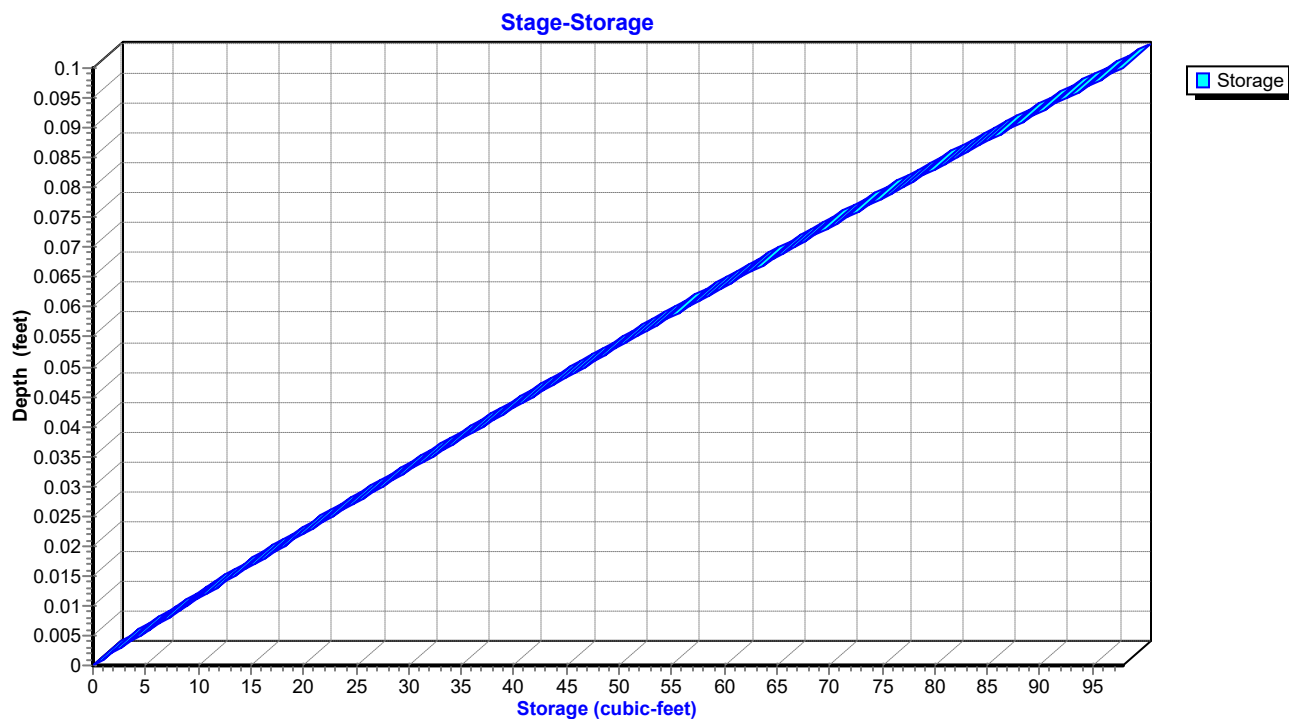
### Reach 11R: REACH 2.1

#### Hydrograph





### Reach 11R: REACH 2.1





### Summary for Reach 12R: REACH 2.2

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 0.00" for 1-year event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
 Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min  
 Avg. Velocity= 0.00 fps, Avg. Travel Time= 0.0 min

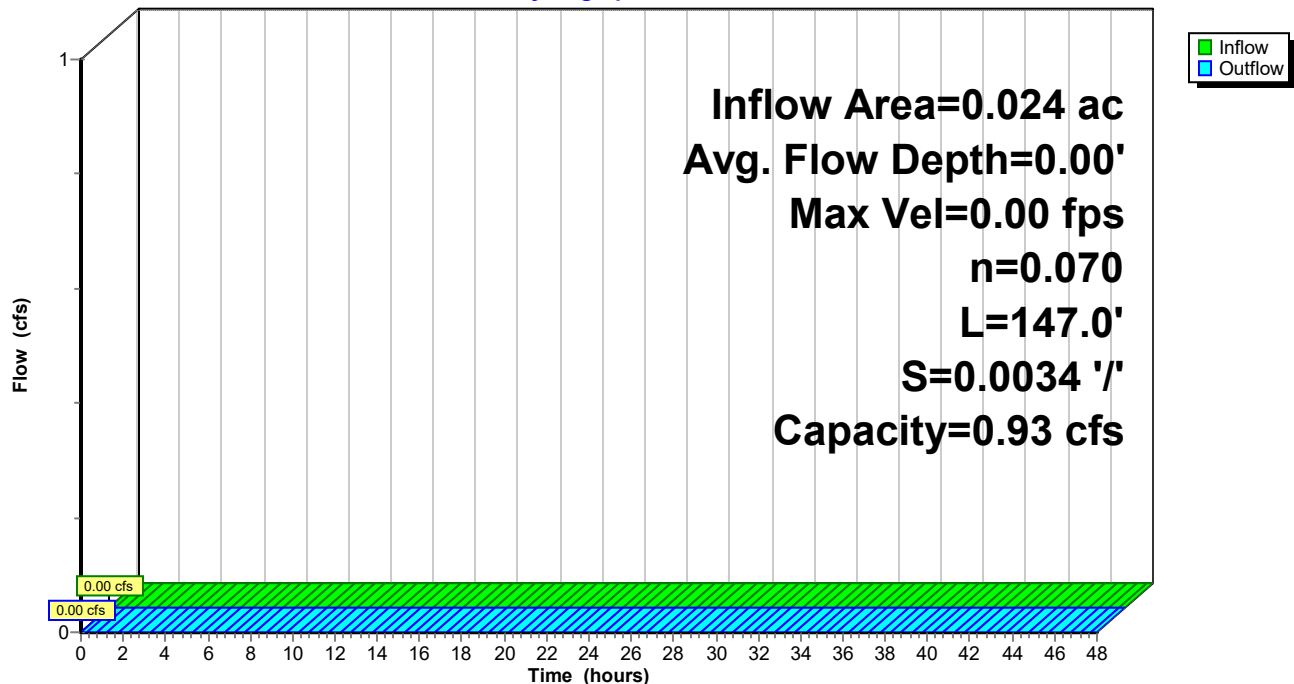
Peak Storage= 0 cf @ 0.00 hrs  
 Average Depth at Peak Storage= 0.00'  
 Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 0.93 cfs

2.00' x 0.50' deep channel, n= 0.070  
 Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
 Length= 147.0' Slope= 0.0034 '/'  
 Inlet Invert= 372.50', Outlet Invert= 372.00'



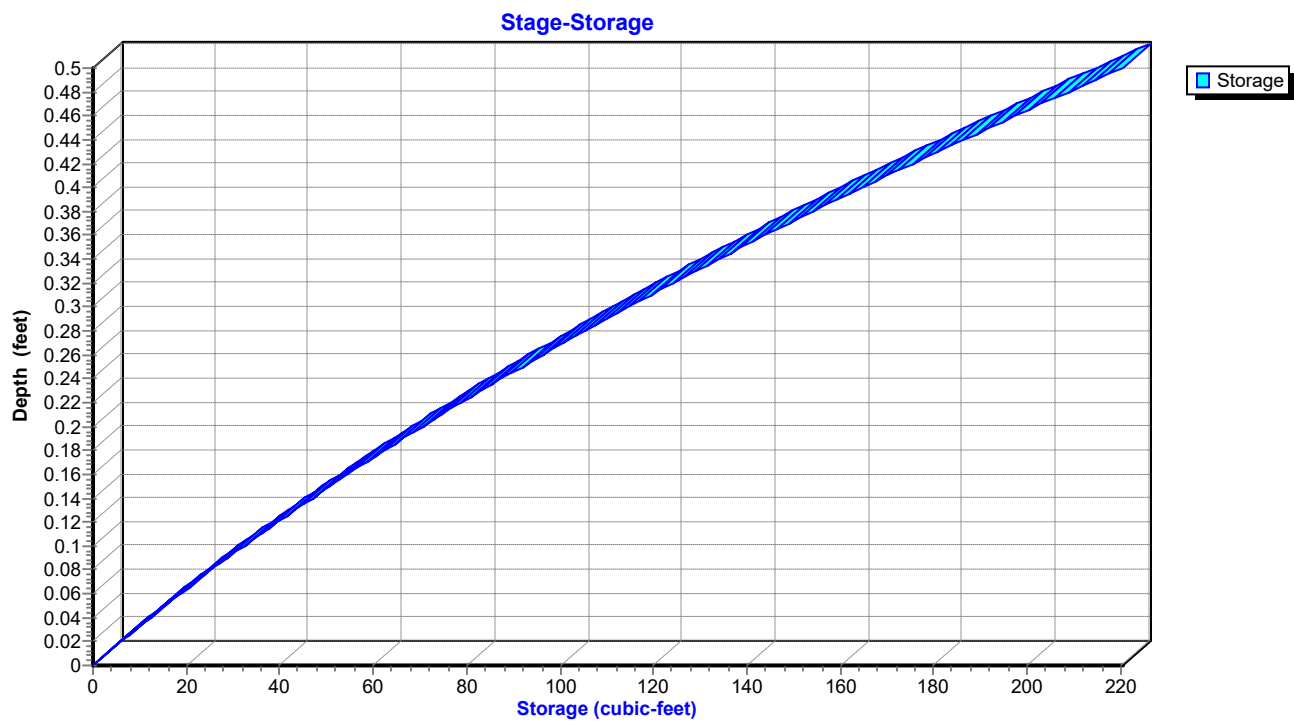
### Reach 12R: REACH 2.2

#### Hydrograph





### Reach 12R: REACH 2.2





### Summary for Pond 5P: BIORET FACILITY

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 1.50" for 1-year event  
 Inflow = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af  
 Outflow = 0.01 cfs @ 14.82 hrs, Volume= 0.003 af, Atten= 95%, Lag= 163.9 min  
 Primary = 0.01 cfs @ 14.82 hrs, Volume= 0.003 af  
 Routed to Reach 9R : REACH 1.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 382.02' @ 14.82 hrs Surf.Area= 606 sf Storage= 281 cf

Plug-Flow detention time= 382.6 min calculated for 0.003 af (30% of inflow)  
 Center-of-Mass det. time= 251.5 min ( 1,079.8 - 828.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	381.50'	598 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
381.50	463	0	0
381.75	555	127	127
382.00	603	145	272
382.50	700	326	598

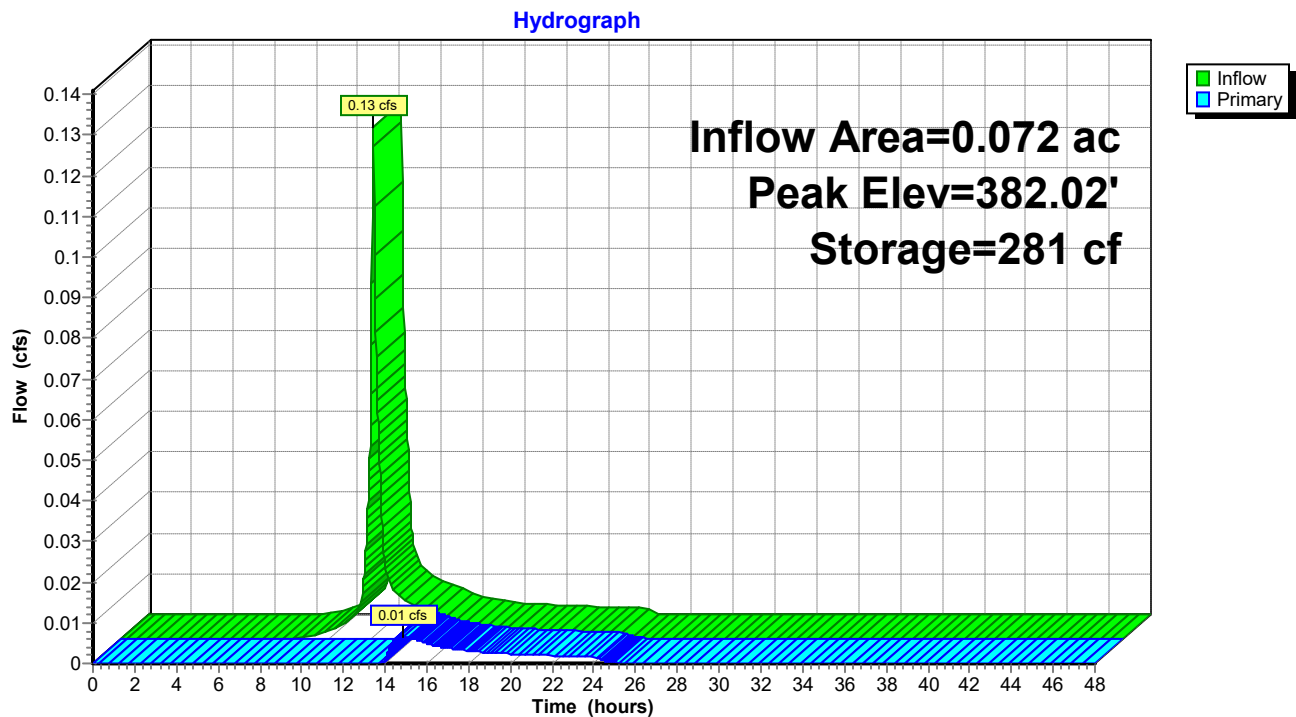
Device	Routing	Invert	Outlet Devices
#1	Primary	382.00'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Primary	382.25'	<b>3.0' long (Profile 7) Broad-Crested Rectangular Weir</b> Head (feet) 0.49 0.98 1.48 Coef. (English) 2.99 3.41 3.62

**Primary OutFlow** Max=0.01 cfs @ 14.82 hrs HW=382.02' (Free Discharge)

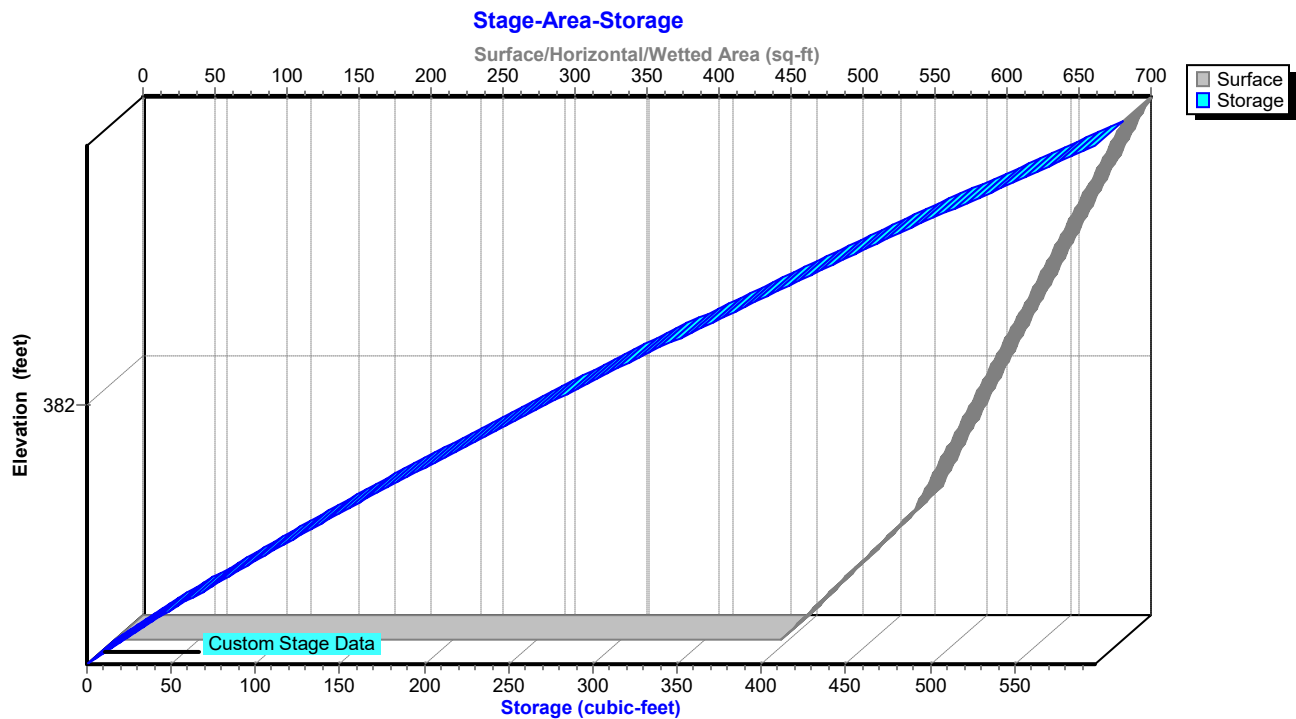
1=Orifice/Grate (Weir Controls 0.01 cfs @ 0.40 fps)  
 2=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)



### Pond 5P: BIORET FACILITY



### Pond 5P: BIORET FACILITY





### Summary for Pond 6P: RAIN GARDEN

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 1.50" for 1-year event  
 Inflow = 0.04 cfs @ 12.09 hrs, Volume= 0.003 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Routed to Reach 11R : REACH 2.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 379.42' @ 24.36 hrs Surf.Area= 335 sf Storage= 129 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	379.00'	249 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

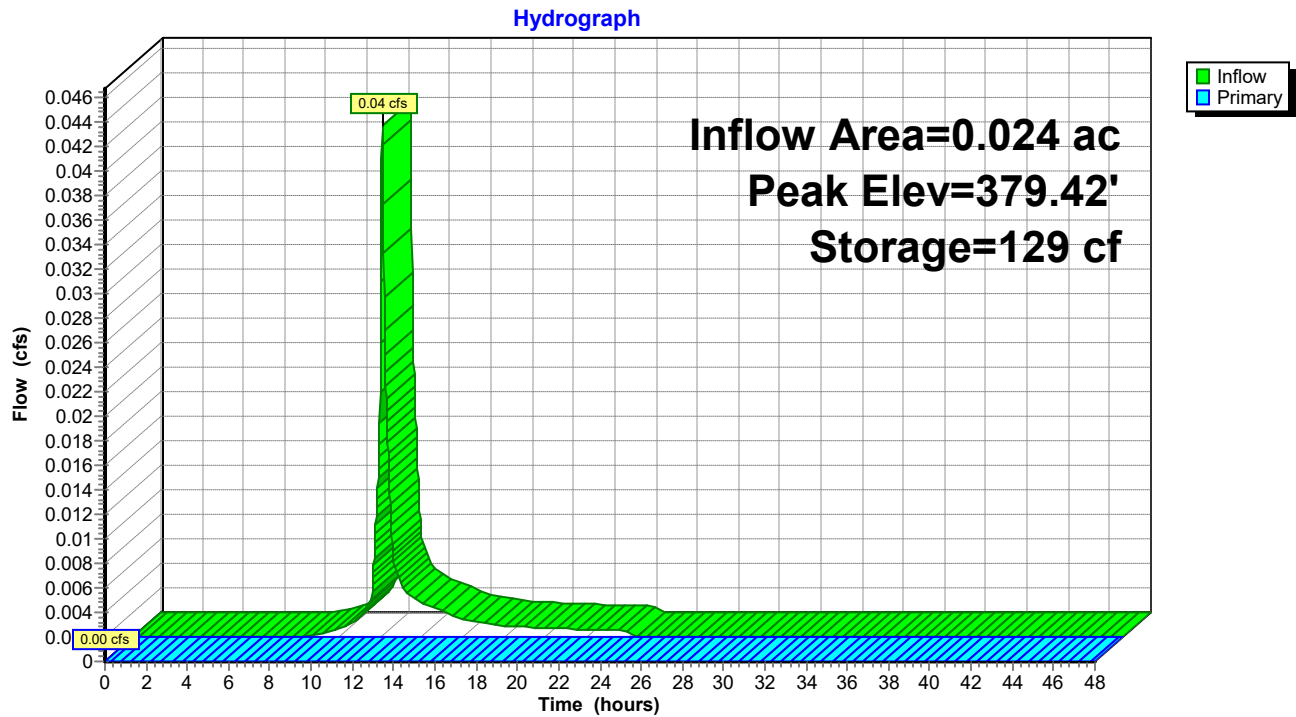
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
379.00	282	0	0
379.25	310	74	74
379.50	346	82	156
379.75	400	93	249

Device	Routing	Invert	Outlet Devices
#1	Primary	379.50'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

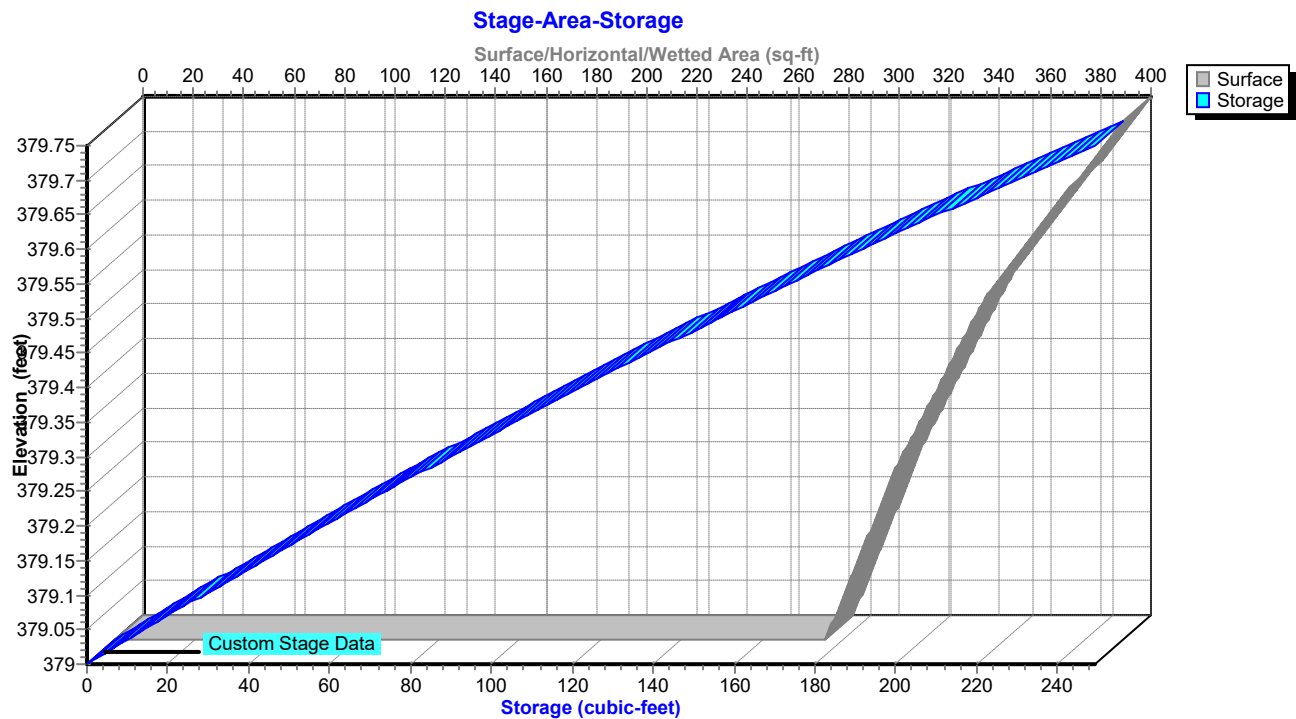
**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=379.00' (Free Discharge)  
 ↑ **1=Orifice/Grate** ( Controls 0.00 cfs)



### Pond 6P: RAIN GARDEN



### Pond 6P: RAIN GARDEN



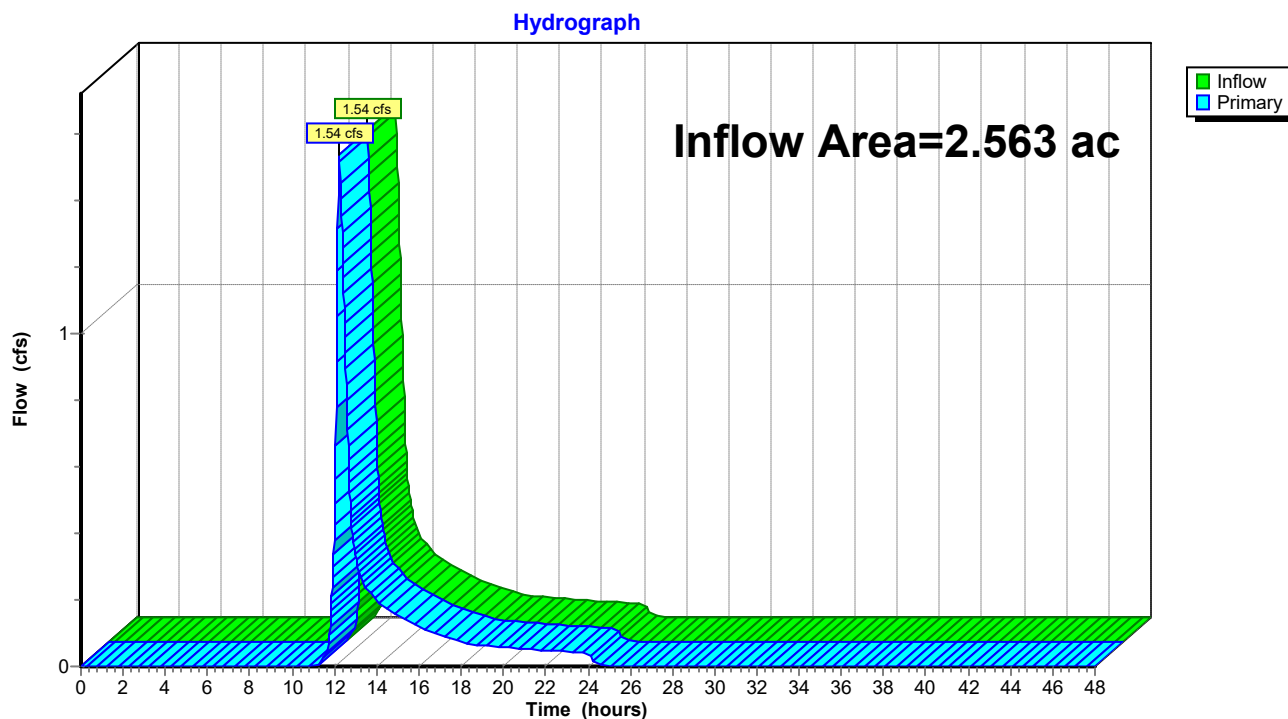


### Summary for Link 7L: DESIGN POINT

Inflow Area = 2.563 ac, 7.64% Impervious, Inflow Depth = 0.77" for 1-year event  
 Inflow = 1.54 cfs @ 12.24 hrs, Volume= 0.165 af  
 Primary = 1.54 cfs @ 12.24 hrs, Volume= 0.165 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

### Link 7L: DESIGN POINT





**23 Waccabuc Rd SW Plan\_11-28-2021***Type III 24-hr 2-year Rainfall=3.39"*

Prepared by ALP Engineering &amp; Land. Arch. PLLC

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Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 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: XDA-1 TO DESIGN** Runoff Area=111,651 sf 5.74% Impervious Runoff Depth=1.16"  
Flow Length=621' Tc=16.3 min CN=74 Runoff=2.44 cfs 0.249 af

**Subcatchment 2S: FDA-1 TO SW PRACTICE** Runoff Area=3,119 sf 51.72% Impervious Runoff Depth=2.00"  
Tc=6.0 min CN=86 Runoff=0.17 cfs 0.012 af

**Subcatchment 3S: FDA-2 TO SW PRACTICE** Runoff Area=1,033 sf 49.47% Impervious Runoff Depth=2.00"  
Tc=6.0 min CN=86 Runoff=0.06 cfs 0.004 af

**Subcatchment 4S: FDA-3 TO DESIGN** Runoff Area=107,499 sf 5.96% Impervious Runoff Depth=1.16"  
Flow Length=626' Tc=15.8 min CN=74 Runoff=2.37 cfs 0.240 af

**Reach 9R: REACH 1.1** Avg. Flow Depth=0.01' Max Vel=0.32 fps Inflow=0.02 cfs 0.006 af  
n=0.050 L=62.0' S=0.0968 '/' Capacity=2.07 cfs Outflow=0.02 cfs 0.006 af

**Reach 10R: REACH 1.2** Avg. Flow Depth=0.04' Max Vel=0.21 fps Inflow=0.02 cfs 0.006 af  
n=0.070 L=330.0' S=0.0091 '/' Capacity=1.52 cfs Outflow=0.02 cfs 0.006 af

**Reach 11R: REACH 2.1** Avg. Flow Depth=0.00' Max Vel=0.08 fps Inflow=0.00 cfs 0.000 af  
n=0.050 L=89.0' S=0.0618 '/' Capacity=1.65 cfs Outflow=0.00 cfs 0.000 af

**Reach 12R: REACH 2.2** Avg. Flow Depth=0.01' Max Vel=0.05 fps Inflow=0.00 cfs 0.000 af  
n=0.070 L=147.0' S=0.0034 '/' Capacity=0.93 cfs Outflow=0.00 cfs 0.000 af

**Pond 5P: BIORET FACILITY** Peak Elev=382.03' Storage=292 cf Inflow=0.17 cfs 0.012 af  
Outflow=0.02 cfs 0.006 af

**Pond 6P: RAIN GARDEN** Peak Elev=379.50' Storage=157 cf Inflow=0.06 cfs 0.004 af  
Outflow=0.00 cfs 0.000 af

**Link 7L: DESIGN POINT** Inflow=2.37 cfs 0.246 af  
Primary=2.37 cfs 0.246 af

**Total Runoff Area = 5.126 ac Runoff Volume = 0.504 af Average Runoff Depth = 1.18"**  
**93.31% Pervious = 4.783 ac 6.69% Impervious = 0.343 ac**



### Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT

[47] Hint: Peak is 163% of capacity of segment #3

Runoff = 2.44 cfs @ 12.24 hrs, Volume= 0.249 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 2-year Rainfall=3.39"

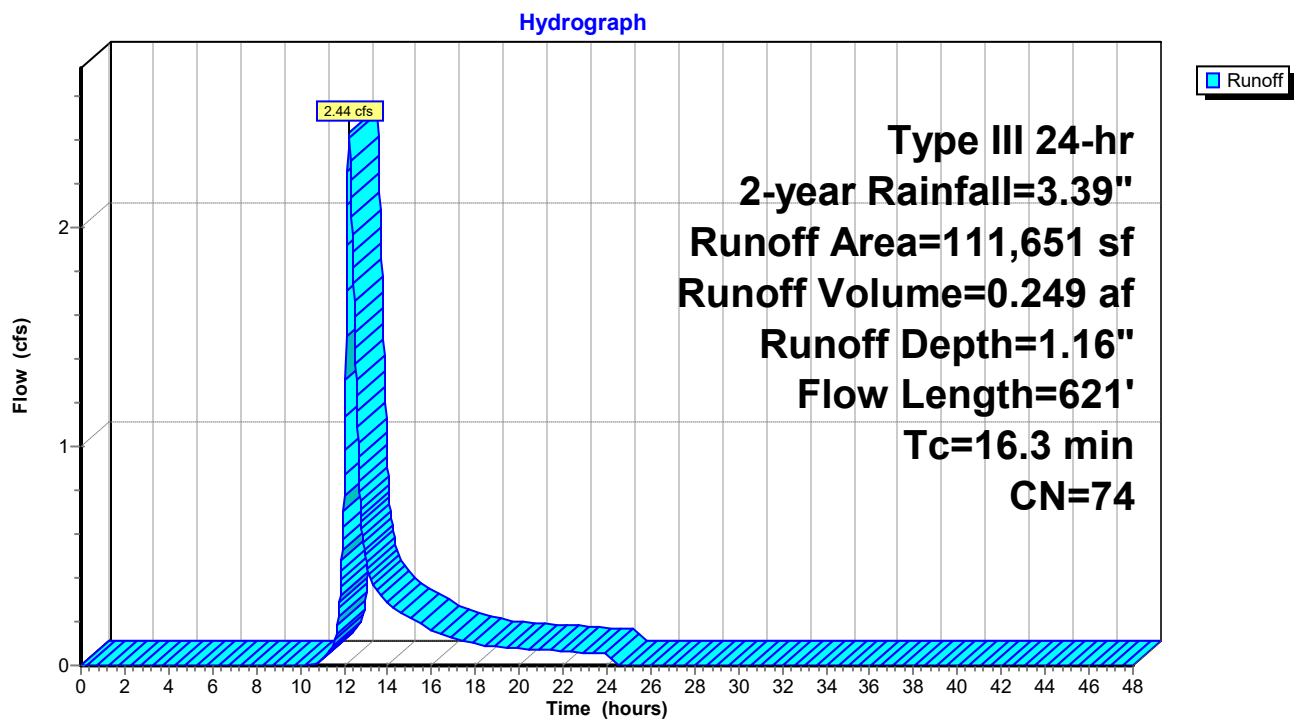
Area (sf)	CN	Description
6,406	98	Roofs, HSG C
1,298	89	Gravel roads, HSG C
74,065	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,340	74	>75% Grass cover, Good, HSG C
111,651	74	Weighted Average
105,245		94.26% Pervious Area
6,406		5.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	84	0.1607	0.18		<b>Sheet Flow, A-B</b> Woods: Light underbrush n= 0.400 P2= 3.39"
1.7	137	0.0766	1.38		<b>Shallow Concentrated Flow, B-C</b> Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b> Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.070 Sluggish weedy reaches w/pools
16.3	621	Total			



**Subcatchment 1S: XDA-1 TO DESIGN POINT**





### Summary for Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Runoff = 0.17 cfs @ 12.09 hrs, Volume= 0.012 af, Depth= 2.00"  
Routed to Pond 5P : BIORET FACILITY

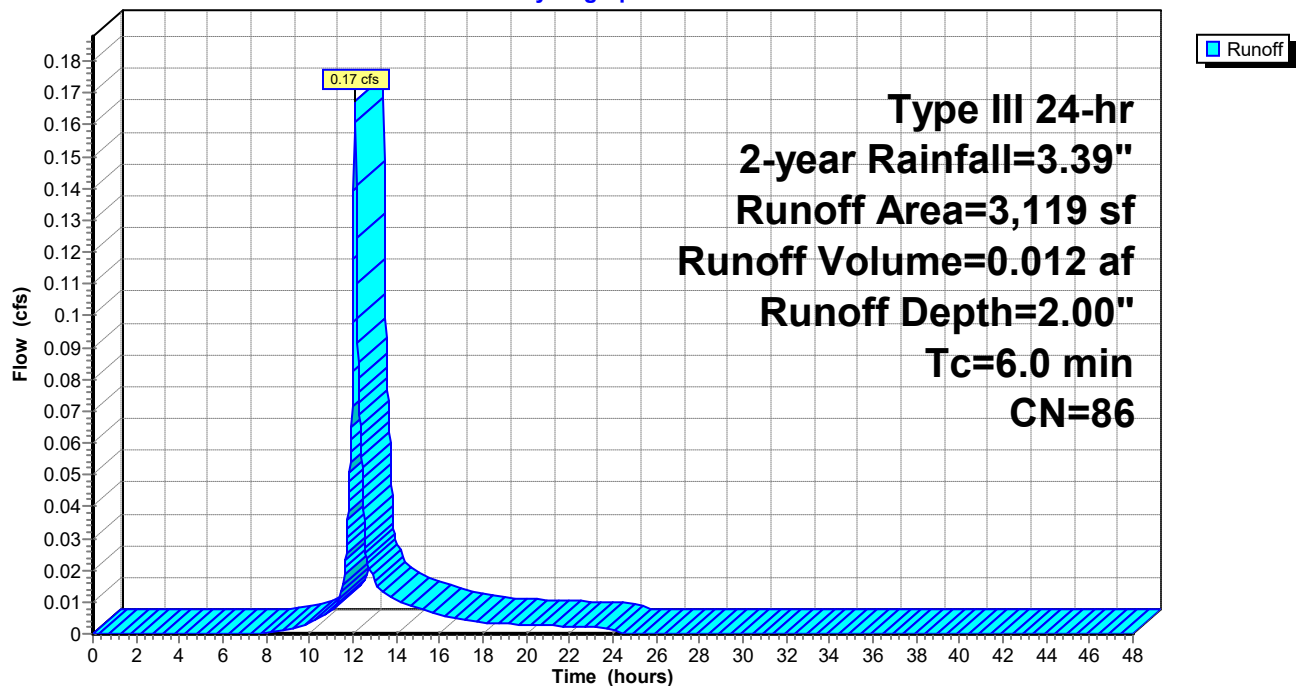
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 2-year Rainfall=3.39"

	Area (sf)	CN	Description
*	1,418	98	Pool & Pool Patio, HSG C
	1,506	74	>75% Grass cover, Good, HSG C
*	195	98	Canopy over Deck, HSG B
	3,119	86	Weighted Average
	1,506		48.28% Pervious Area
	1,613		51.72% Impervious Area

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

### Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Hydrograph





### Summary for Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Runoff = 0.06 cfs @ 12.09 hrs, Volume= 0.004 af, Depth= 2.00"  
Routed to Pond 6P : RAIN GARDEN

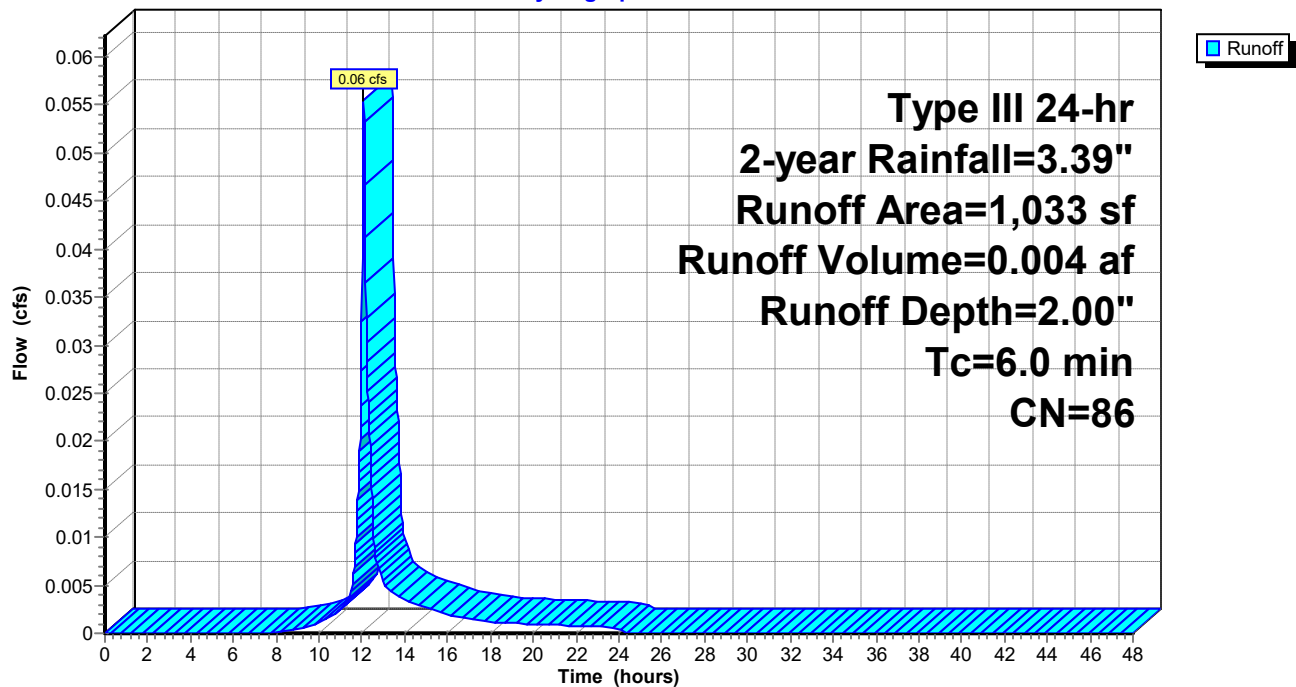
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 2-year Rainfall=3.39"

Area (sf)	CN	Description
511	98	Roofs, HSG C
522	74	>75% Grass cover, Good, HSG C
1,033	86	Weighted Average
522		50.53% Pervious Area
511		49.47% Impervious Area

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

### Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Hydrograph





### Summary for Subcatchment 4S: FDA-3 TO DESIGN POINT

[47] Hint: Peak is 159% of capacity of segment #3

Runoff = 2.37 cfs @ 12.23 hrs, Volume= 0.240 af, Depth= 1.16"  
Routed to Link 7L : DESIGN POINT

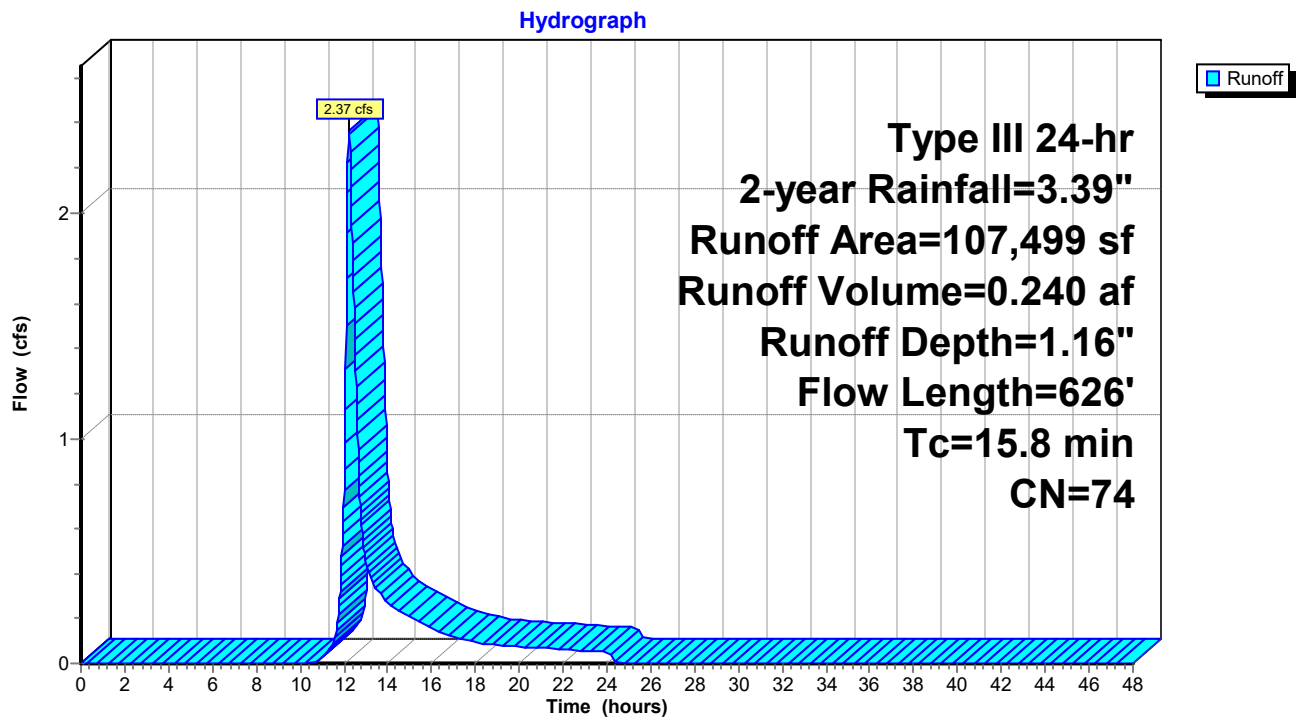
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 2-year Rainfall=3.39"

Area (sf)	CN	Description
6,406	98	Roofs, HSG C
* 1,042	96	Deck (use Gravel surface), HSG C
69,720	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,789	74	>75% Grass cover, Good, HSG C
107,499	74	Weighted Average
101,093		94.04% Pervious Area
6,406		5.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	79	0.1772	0.18		<b>Sheet Flow, A-B</b>
					Woods: Light underbrush n= 0.400 P2= 3.39"
1.9	147	0.0680	1.30		<b>Shallow Concentrated Flow, B-C</b>
					Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b>
					Bot.W=2.00' D=0.50' Z= 2.0 ' / ' Top.W=4.00'
					n= 0.070
15.8	626	Total			



**Subcatchment 4S: FDA-3 TO DESIGN POINT**





### Summary for Reach 9R: REACH 1.1

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 0.95" for 2-year event  
 Inflow = 0.02 cfs @ 12.75 hrs, Volume= 0.006 af  
 Outflow = 0.02 cfs @ 12.84 hrs, Volume= 0.006 af, Atten= 0%, Lag= 5.6 min  
 Routed to Reach 10R : REACH 1.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.32 fps, Min. Travel Time= 3.2 min  
 Avg. Velocity= 0.17 fps, Avg. Travel Time= 6.2 min

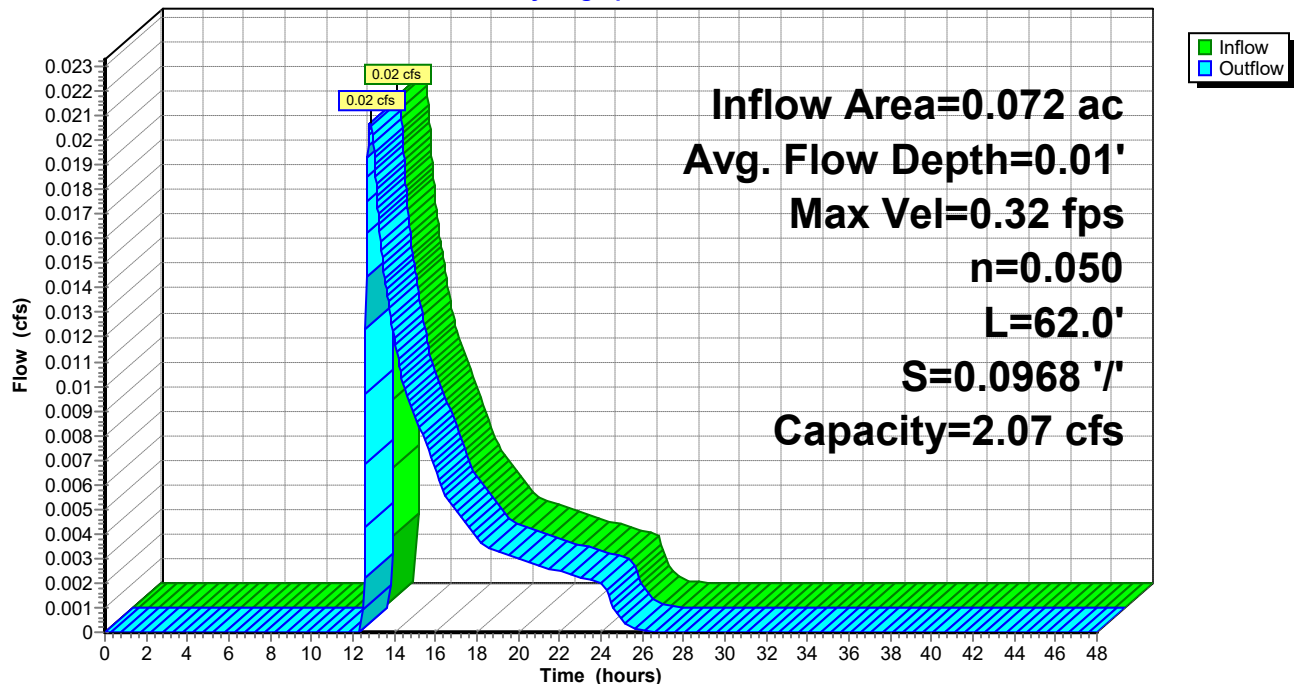
Peak Storage= 4 cf @ 12.79 hrs  
 Average Depth at Peak Storage= 0.01', Surface Width= 10.13'  
 Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 2.07 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds  
 Side Slope Z-value= 10.0 '/' Top Width= 12.00'  
 Length= 62.0' Slope= 0.0968 '/'  
 Inlet Invert= 381.00', Outlet Invert= 375.00'



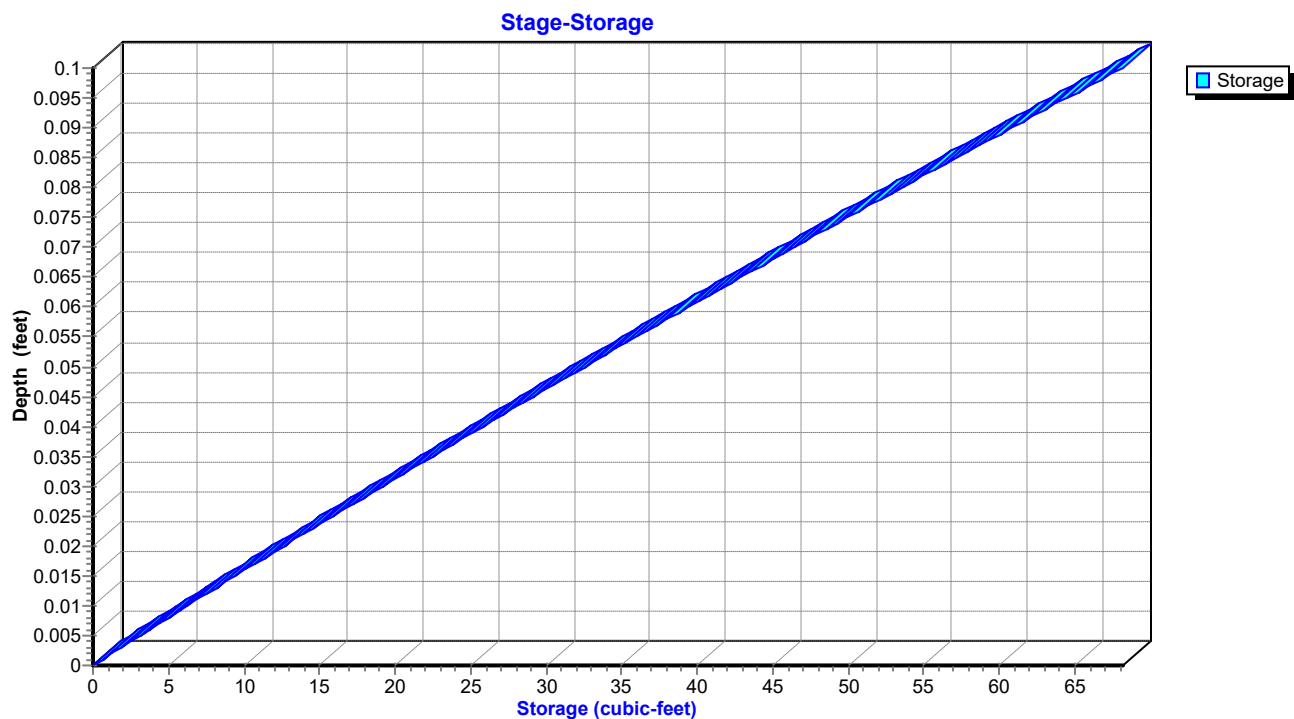
### Reach 9R: REACH 1.1

#### Hydrograph





### Reach 9R: REACH 1.1





**Summary for Reach 10R: REACH 1.2**

[62] Hint: Exceeded Reach 9R OUTLET depth by 0.03' @ 13.38 hrs

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 0.95" for 2-year event  
Inflow = 0.02 cfs @ 12.84 hrs, Volume= 0.006 af  
Outflow = 0.02 cfs @ 13.78 hrs, Volume= 0.006 af, Atten= 24%, Lag= 55.9 min  
Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Max. Velocity= 0.21 fps, Min. Travel Time= 25.8 min  
Avg. Velocity= 0.10 fps, Avg. Travel Time= 52.5 min

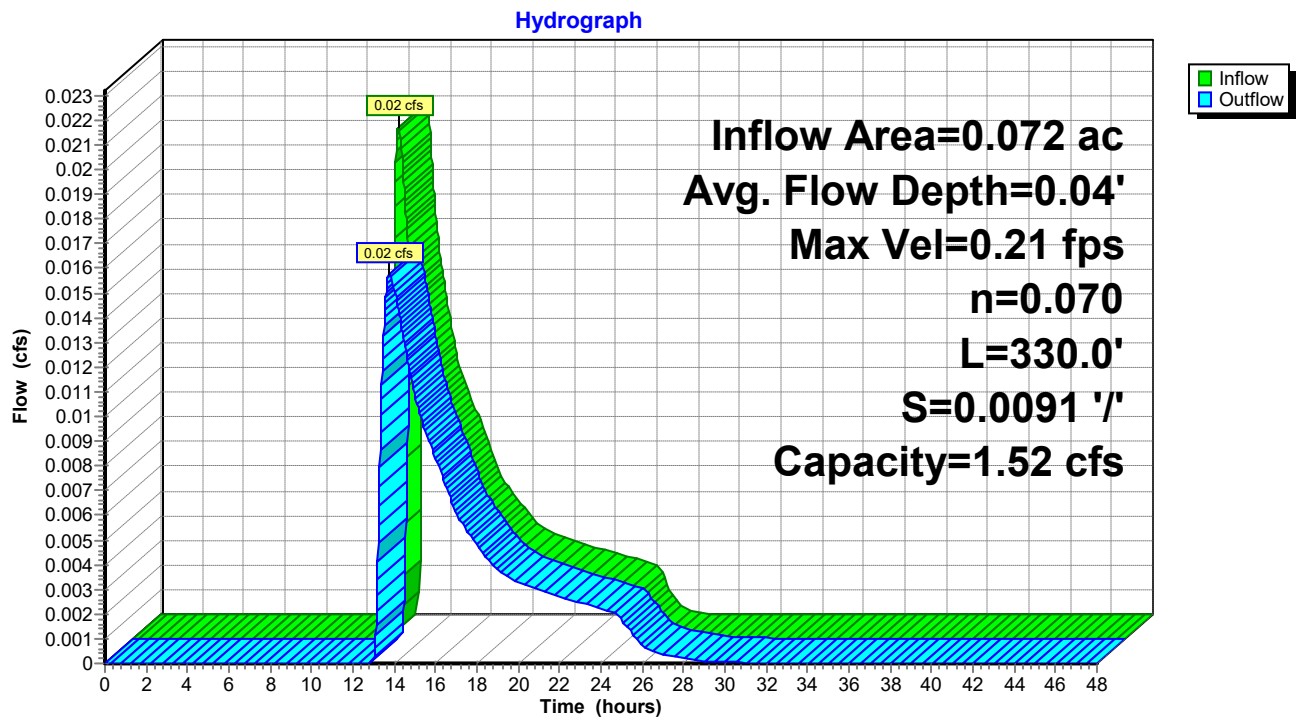
Peak Storage= 24 cf @ 13.35 hrs  
Average Depth at Peak Storage= 0.04' , Surface Width= 2.14'  
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 1.52 cfs

2.00' x 0.50' deep channel, n= 0.070  
Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
Length= 330.0' Slope= 0.0091 '/'  
Inlet Invert= 375.00', Outlet Invert= 372.00'

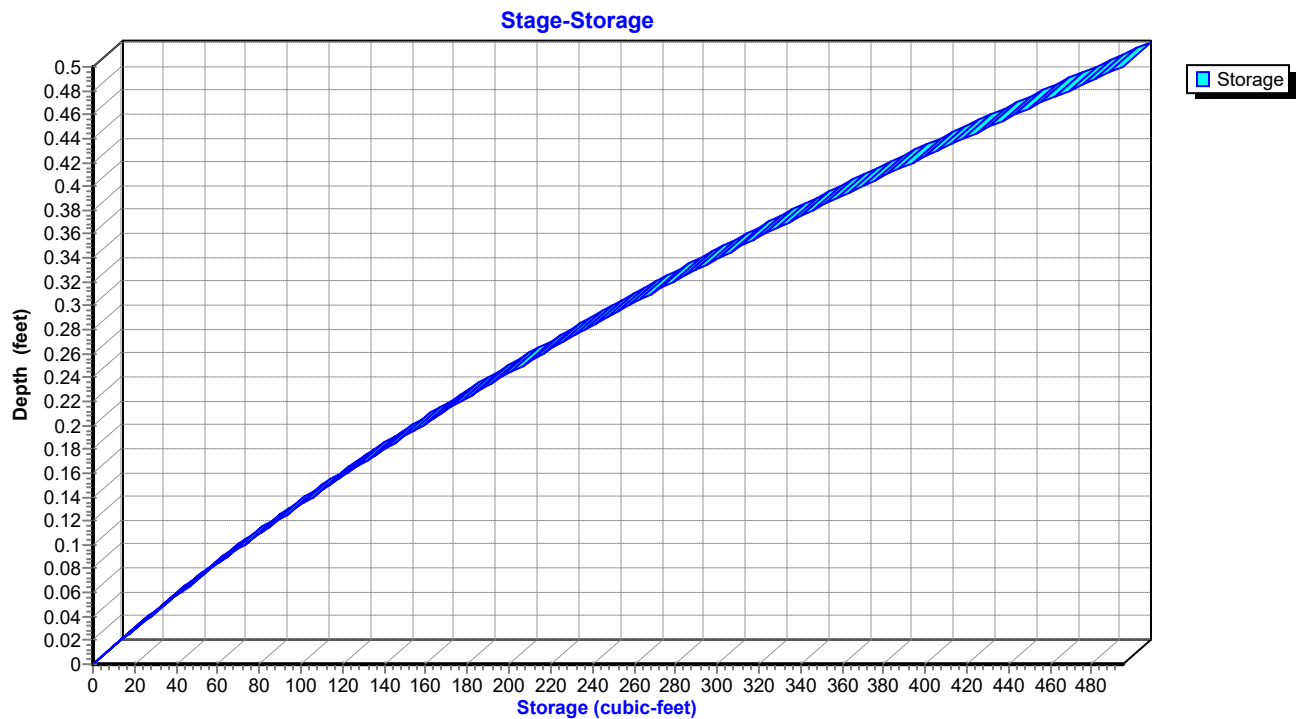




### Reach 10R: REACH 1.2



### Reach 10R: REACH 1.2





### Summary for Reach 11R: REACH 2.1

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 0.19" for 2-year event  
 Inflow = 0.00 cfs @ 19.69 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 20.32 hrs, Volume= 0.000 af, Atten= 2%, Lag= 37.4 min  
 Routed to Reach 12R : REACH 2.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.08 fps, Min. Travel Time= 17.7 min  
 Avg. Velocity= 0.08 fps, Avg. Travel Time= 19.5 min

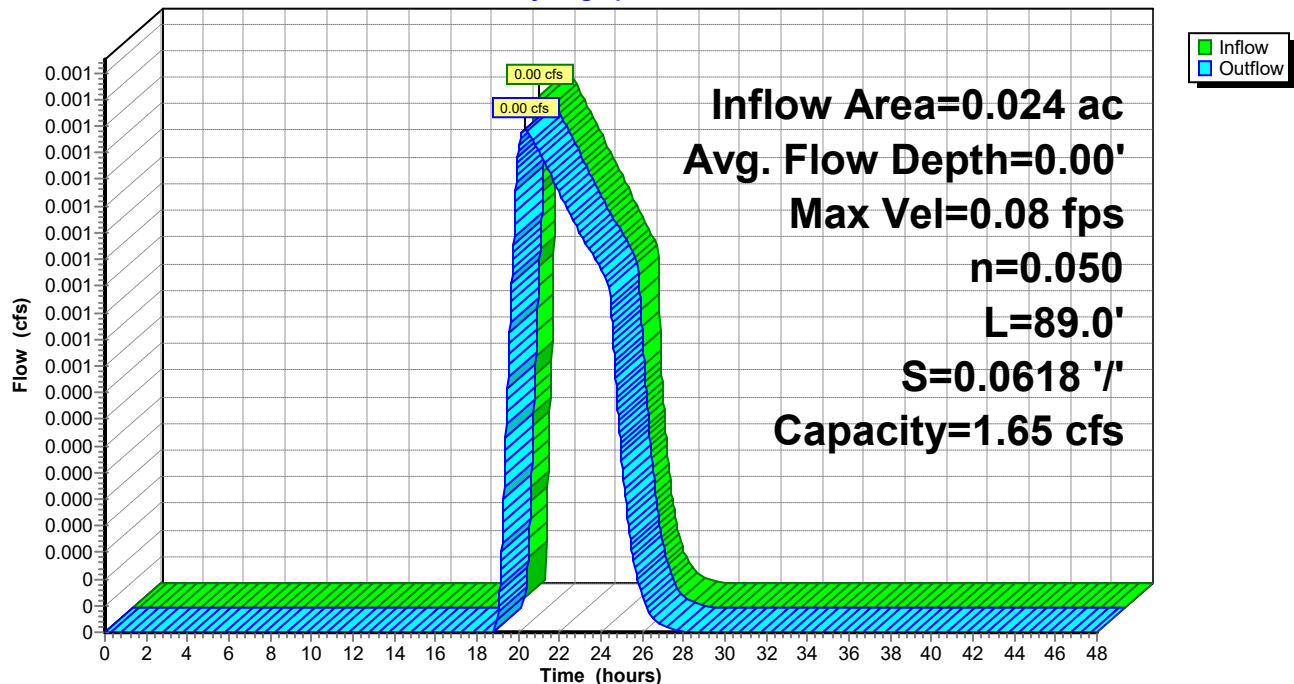
Peak Storage= 1 cf @ 20.02 hrs  
 Average Depth at Peak Storage= 0.00' , Surface Width= 10.02'  
 Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 1.65 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds  
 Side Slope Z-value= 10.0 ' ' Top Width= 12.00'  
 Length= 89.0' Slope= 0.0618 ' '  
 Inlet Invert= 378.00', Outlet Invert= 372.50'



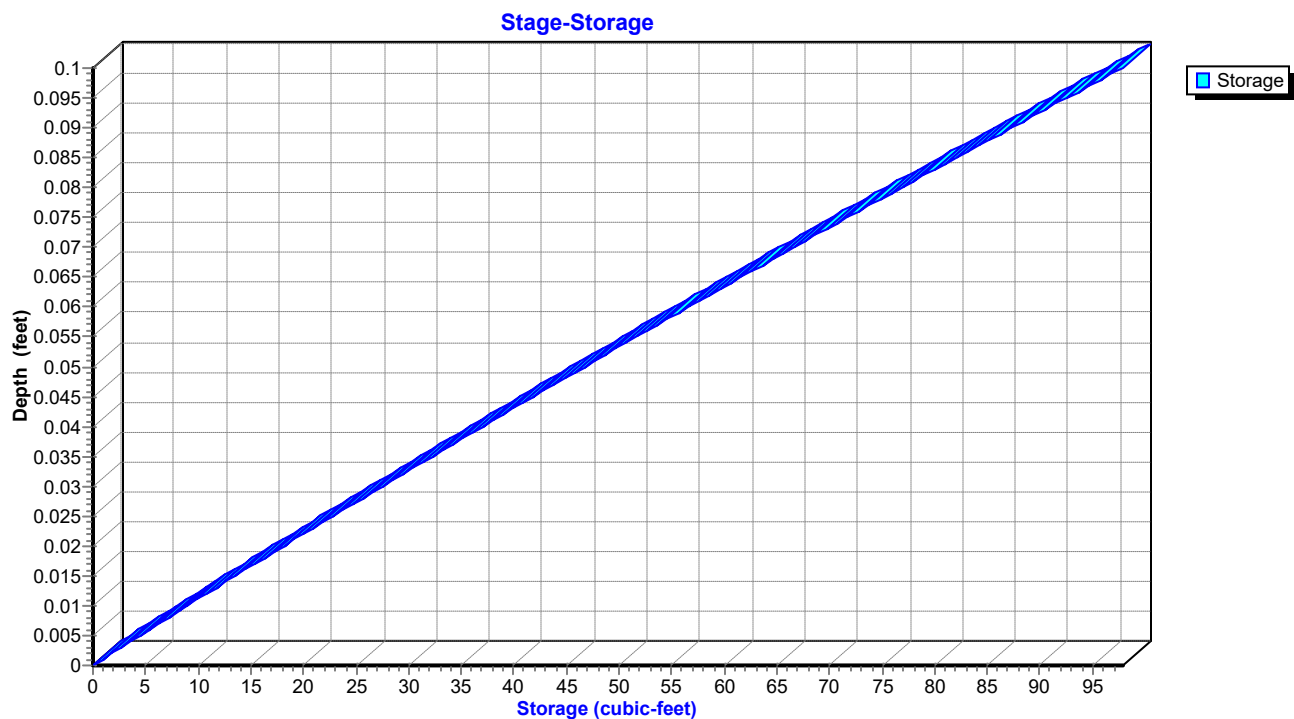
### Reach 11R: REACH 2.1

#### Hydrograph





### Reach 11R: REACH 2.1





**Summary for Reach 12R: REACH 2.2**

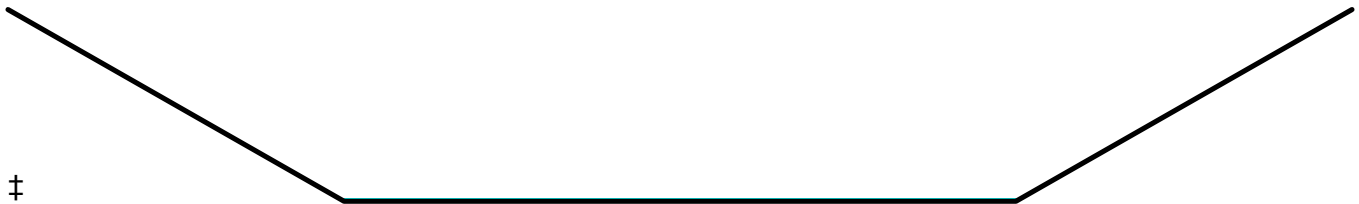
[62] Hint: Exceeded Reach 11R OUTLET depth by 0.01' @ 21.62 hrs

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 0.19" for 2-year event  
Inflow = 0.00 cfs @ 20.32 hrs, Volume= 0.000 af  
Outflow = 0.00 cfs @ 22.35 hrs, Volume= 0.000 af, Atten= 9%, Lag= 122.0 min  
Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Max. Velocity= 0.05 fps, Min. Travel Time= 46.9 min  
Avg. Velocity= 0.04 fps, Avg. Travel Time= 58.7 min

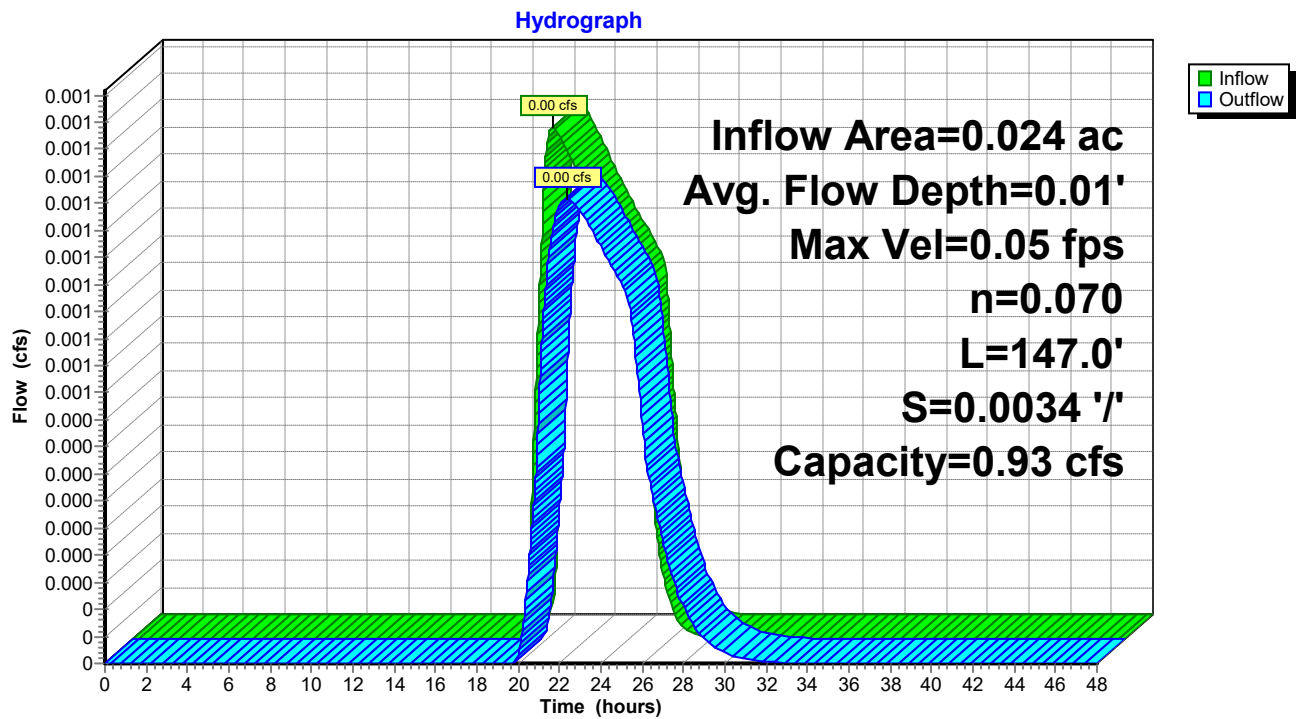
Peak Storage= 2 cf @ 21.57 hrs  
Average Depth at Peak Storage= 0.01', Surface Width= 2.03'  
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 0.93 cfs

2.00' x 0.50' deep channel, n= 0.070  
Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
Length= 147.0' Slope= 0.0034 '/'  
Inlet Invert= 372.50', Outlet Invert= 372.00'

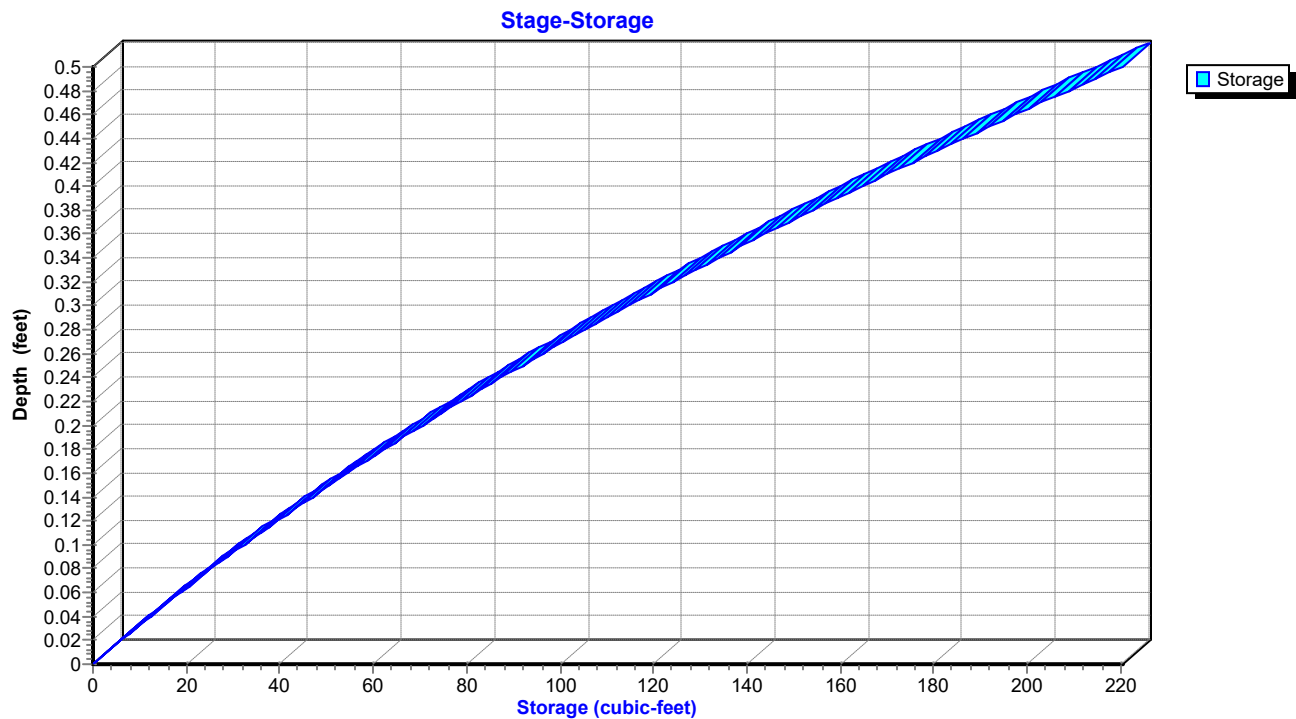




### Reach 12R: REACH 2.2



### Reach 12R: REACH 2.2





### Summary for Pond 5P: BIORET FACILITY

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 2.00" for 2-year event  
 Inflow = 0.17 cfs @ 12.09 hrs, Volume= 0.012 af  
 Outflow = 0.02 cfs @ 12.75 hrs, Volume= 0.006 af, Atten= 88%, Lag= 39.7 min  
 Primary = 0.02 cfs @ 12.75 hrs, Volume= 0.006 af  
 Routed to Reach 9R : REACH 1.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 382.03' @ 12.75 hrs Surf.Area= 609 sf Storage= 292 cf

Plug-Flow detention time= 262.2 min calculated for 0.006 af (48% of inflow)  
 Center-of-Mass det. time= 146.3 min ( 966.4 - 820.1 )

Volume	Invert	Avail.Storage	Storage Description
#1	381.50'	598 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
381.50	463	0	0
381.75	555	127	127
382.00	603	145	272
382.50	700	326	598

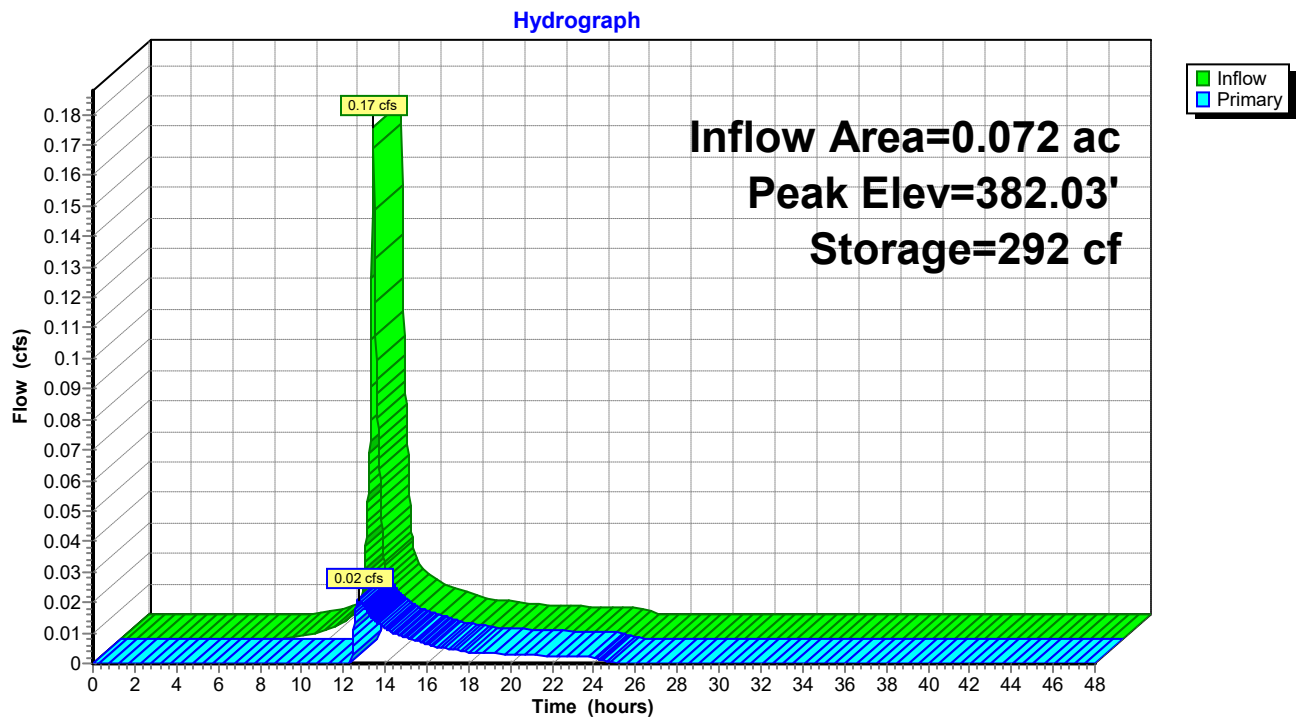
Device	Routing	Invert	Outlet Devices
#1	Primary	382.00'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Primary	382.25'	<b>3.0' long (Profile 7) Broad-Crested Rectangular Weir</b> Head (feet) 0.49 0.98 1.48 Coef. (English) 2.99 3.41 3.62

**Primary OutFlow** Max=0.02 cfs @ 12.75 hrs HW=382.03' (Free Discharge)

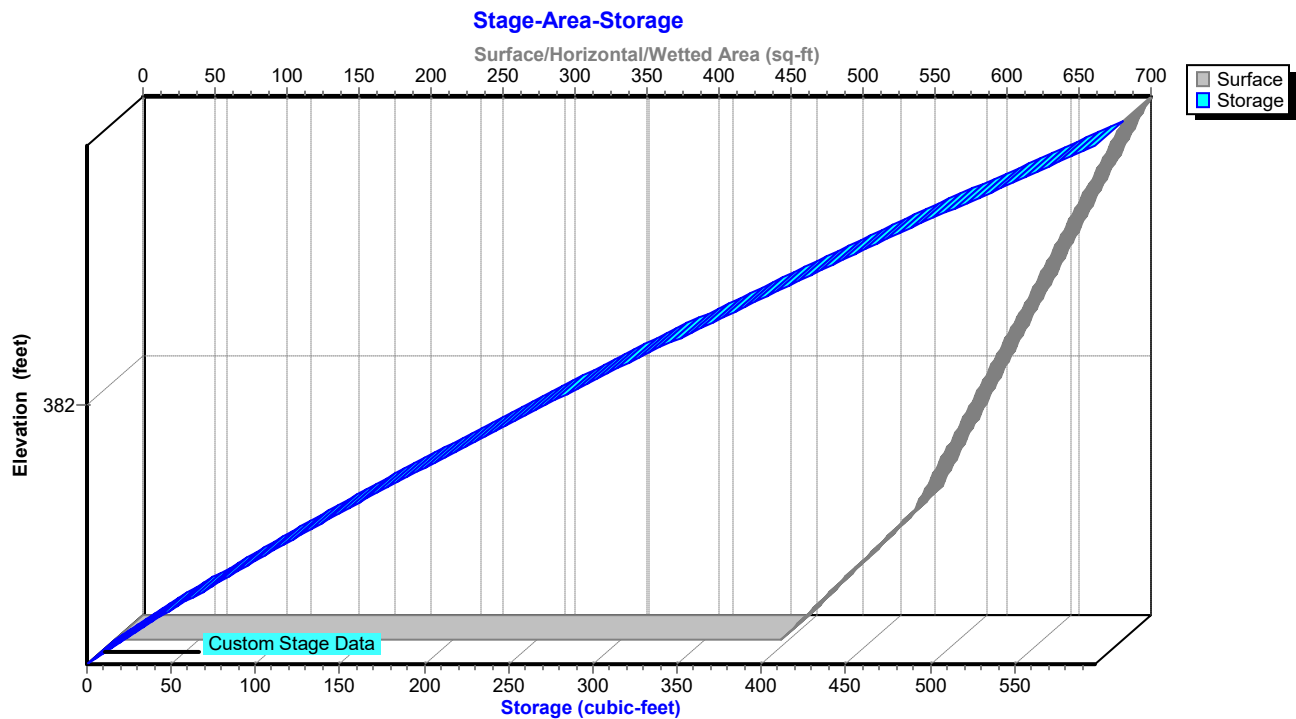
1=Orifice/Grate (Weir Controls 0.02 cfs @ 0.60 fps)  
 2=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)



### Pond 5P: BIORET FACILITY



### Pond 5P: BIORET FACILITY





### Summary for Pond 6P: RAIN GARDEN

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 2.00" for 2-year event  
 Inflow = 0.06 cfs @ 12.09 hrs, Volume= 0.004 af  
 Outflow = 0.00 cfs @ 19.69 hrs, Volume= 0.000 af, Atten= 98%, Lag= 456.3 min  
 Primary = 0.00 cfs @ 19.69 hrs, Volume= 0.000 af  
 Routed to Reach 11R : REACH 2.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 379.50' @ 19.69 hrs Surf.Area= 347 sf Storage= 157 cf

Plug-Flow detention time= 660.9 min calculated for 0.000 af (9% of inflow)  
 Center-of-Mass det. time= 471.7 min ( 1,291.7 - 820.1 )

Volume	Invert	Avail.Storage	Storage Description
#1	379.00'	249 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
379.00	282	0	0
379.25	310	74	74
379.50	346	82	156
379.75	400	93	249

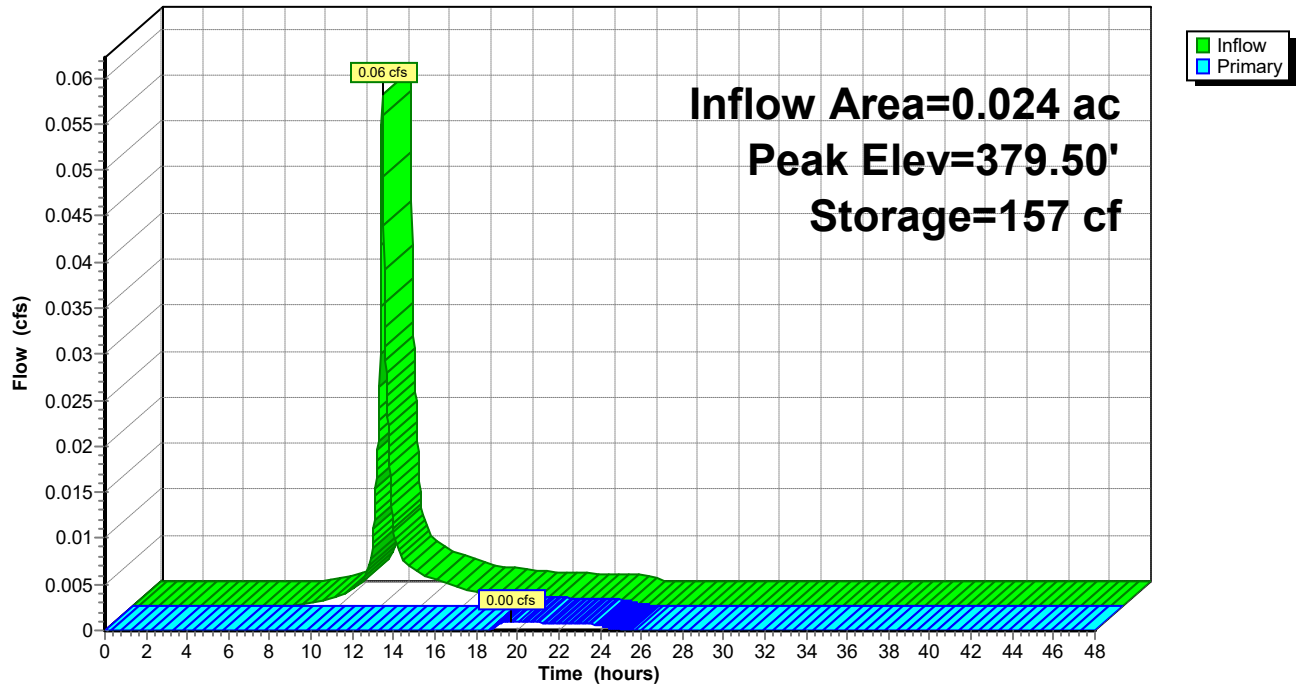
Device	Routing	Invert	Outlet Devices
#1	Primary	379.50'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=0.00 cfs @ 19.69 hrs HW=379.50' (Free Discharge)  
 ↑ **1=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.20 fps)



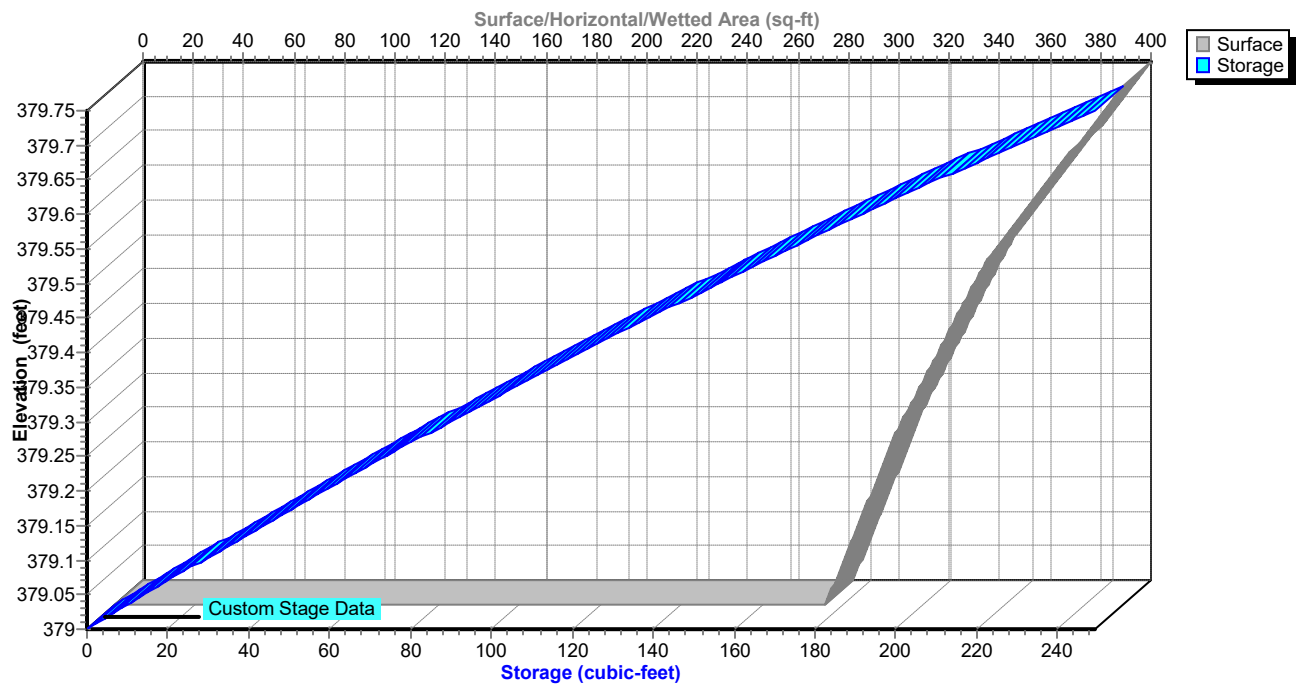
### Pond 6P: RAIN GARDEN

Hydrograph



### Pond 6P: RAIN GARDEN

Stage-Area-Storage

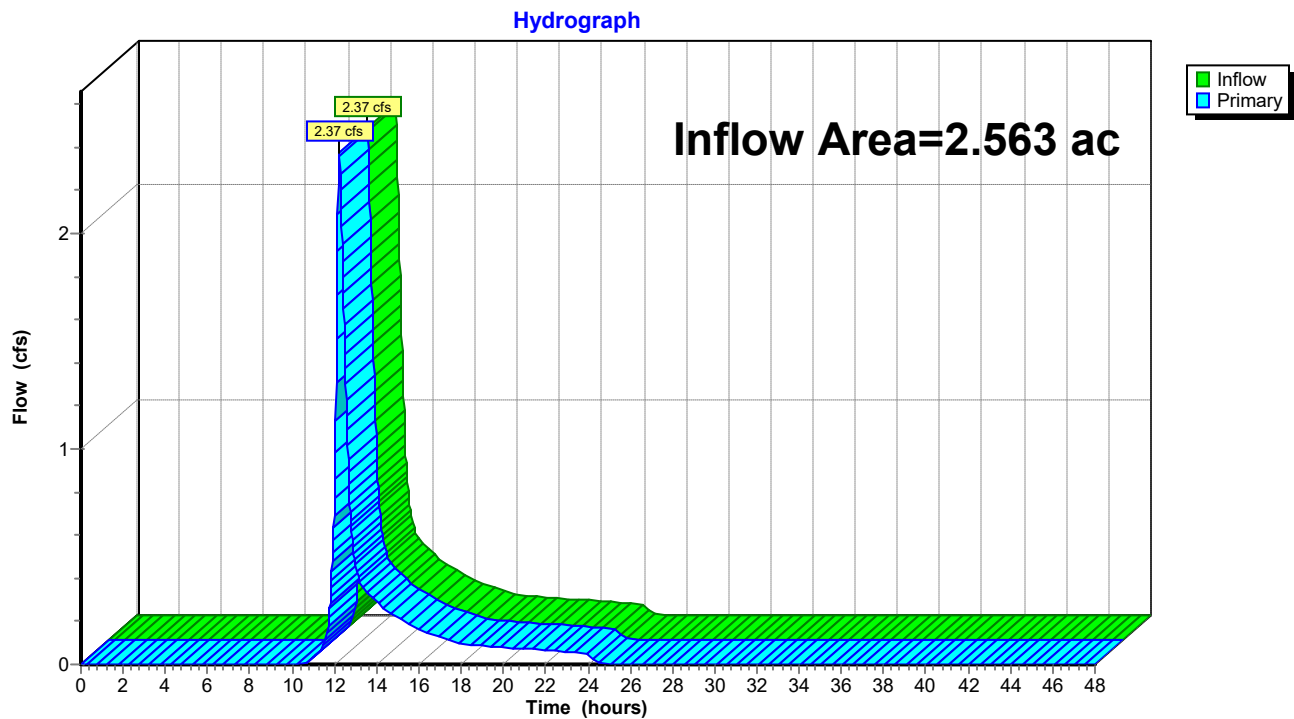




**Summary for Link 7L: DESIGN POINT**

Inflow Area = 2.563 ac, 7.64% Impervious, Inflow Depth = 1.15" for 2-year event  
Inflow = 2.37 cfs @ 12.23 hrs, Volume= 0.246 af  
Primary = 2.37 cfs @ 12.23 hrs, Volume= 0.246 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

**Link 7L: DESIGN POINT**



**23 Waccabuc Rd SW Plan\_11-28-2021***Type III 24-hr 10-year Rainfall=5.06"*

Prepared by ALP Engineering &amp; Land. Arch. PLLC

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Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 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: XDA-1 TO DESIGN** Runoff Area=111,651 sf 5.74% Impervious Runoff Depth=2.41"  
Flow Length=621' Tc=16.3 min CN=74 Runoff=5.27 cfs 0.515 af

**Subcatchment 2S: FDA-1 TO SW PRACTICE** Runoff Area=3,119 sf 51.72% Impervious Runoff Depth=3.52"  
Tc=6.0 min CN=86 Runoff=0.29 cfs 0.021 af

**Subcatchment 3S: FDA-2 TO SW PRACTICE** Runoff Area=1,033 sf 49.47% Impervious Runoff Depth=3.52"  
Tc=6.0 min CN=86 Runoff=0.10 cfs 0.007 af

**Subcatchment 4S: FDA-3 TO DESIGN** Runoff Area=107,499 sf 5.96% Impervious Runoff Depth=2.41"  
Flow Length=626' Tc=15.8 min CN=74 Runoff=5.13 cfs 0.496 af

**Reach 9R: REACH 1.1** Avg. Flow Depth=0.02' Max Vel=0.71 fps Inflow=0.16 cfs 0.015 af  
n=0.050 L=62.0' S=0.0968 '/' Capacity=2.07 cfs Outflow=0.16 cfs 0.015 af

**Reach 10R: REACH 1.2** Avg. Flow Depth=0.12' Max Vel=0.45 fps Inflow=0.16 cfs 0.015 af  
n=0.070 L=330.0' S=0.0091 '/' Capacity=1.52 cfs Outflow=0.12 cfs 0.015 af

**Reach 11R: REACH 2.1** Avg. Flow Depth=0.01' Max Vel=0.27 fps Inflow=0.02 cfs 0.003 af  
n=0.050 L=89.0' S=0.0618 '/' Capacity=1.65 cfs Outflow=0.02 cfs 0.003 af

**Reach 12R: REACH 2.2** Avg. Flow Depth=0.04' Max Vel=0.15 fps Inflow=0.02 cfs 0.003 af  
n=0.070 L=147.0' S=0.0034 '/' Capacity=0.93 cfs Outflow=0.01 cfs 0.003 af

**Pond 5P: BIORET FACILITY** Peak Elev=382.14' Storage=360 cf Inflow=0.29 cfs 0.021 af  
Outflow=0.16 cfs 0.015 af

**Pond 6P: RAIN GARDEN** Peak Elev=379.53' Storage=168 cf Inflow=0.10 cfs 0.007 af  
Outflow=0.02 cfs 0.003 af

**Link 7L: DESIGN POINT** Inflow=5.13 cfs 0.514 af  
Primary=5.13 cfs 0.514 af

**Total Runoff Area = 5.126 ac Runoff Volume = 1.039 af Average Runoff Depth = 2.43"**  
**93.31% Pervious = 4.783 ac 6.69% Impervious = 0.343 ac**



### Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT

[47] Hint: Peak is 353% of capacity of segment #3

Runoff = 5.27 cfs @ 12.23 hrs, Volume= 0.515 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 10-year Rainfall=5.06"

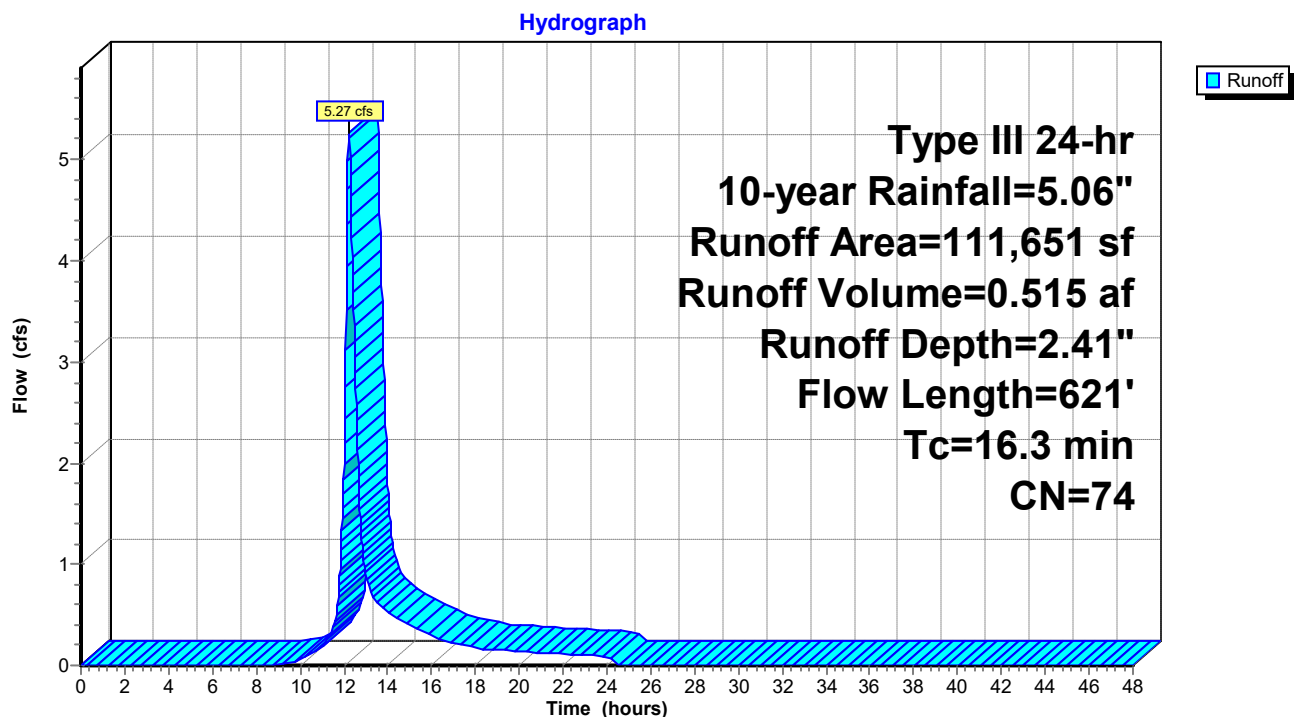
Area (sf)	CN	Description
6,406	98	Roofs, HSG C
1,298	89	Gravel roads, HSG C
74,065	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,340	74	>75% Grass cover, Good, HSG C
111,651	74	Weighted Average
105,245		94.26% Pervious Area
6,406		5.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	84	0.1607	0.18		<b>Sheet Flow, A-B</b> Woods: Light underbrush n= 0.400 P2= 3.39"
1.7	137	0.0766	1.38		<b>Shallow Concentrated Flow, B-C</b> Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b> Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.070 Sluggish weedy reaches w/pools
16.3	621	Total			



**Subcatchment 1S: XDA-1 TO DESIGN POINT**





### Summary for Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 0.021 af, Depth= 3.52"  
Routed to Pond 5P : BIORET FACILITY

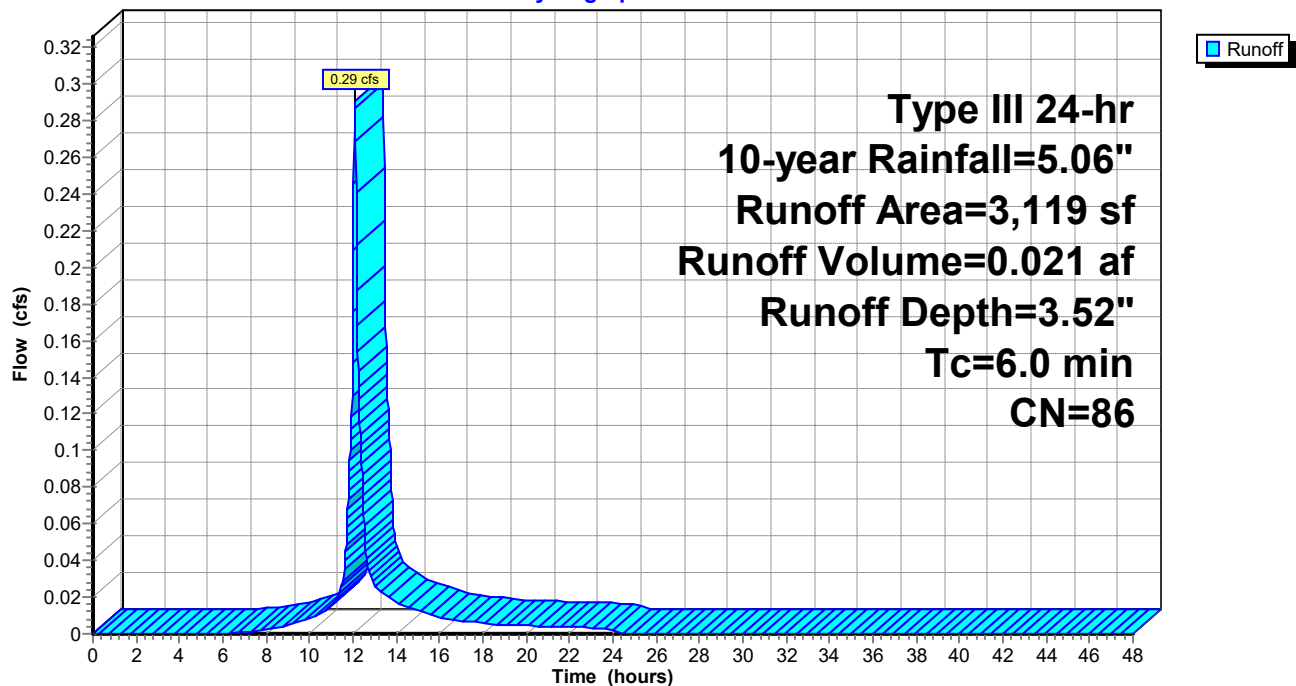
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 10-year Rainfall=5.06"

	Area (sf)	CN	Description
*	1,418	98	Pool & Pool Patio, HSG C
	1,506	74	>75% Grass cover, Good, HSG C
*	195	98	Canopy over Deck, HSG B
	3,119	86	Weighted Average
	1,506		48.28% Pervious Area
	1,613		51.72% Impervious Area

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

### Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Hydrograph





### Summary for Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Depth= 3.52"  
Routed to Pond 6P : RAIN GARDEN

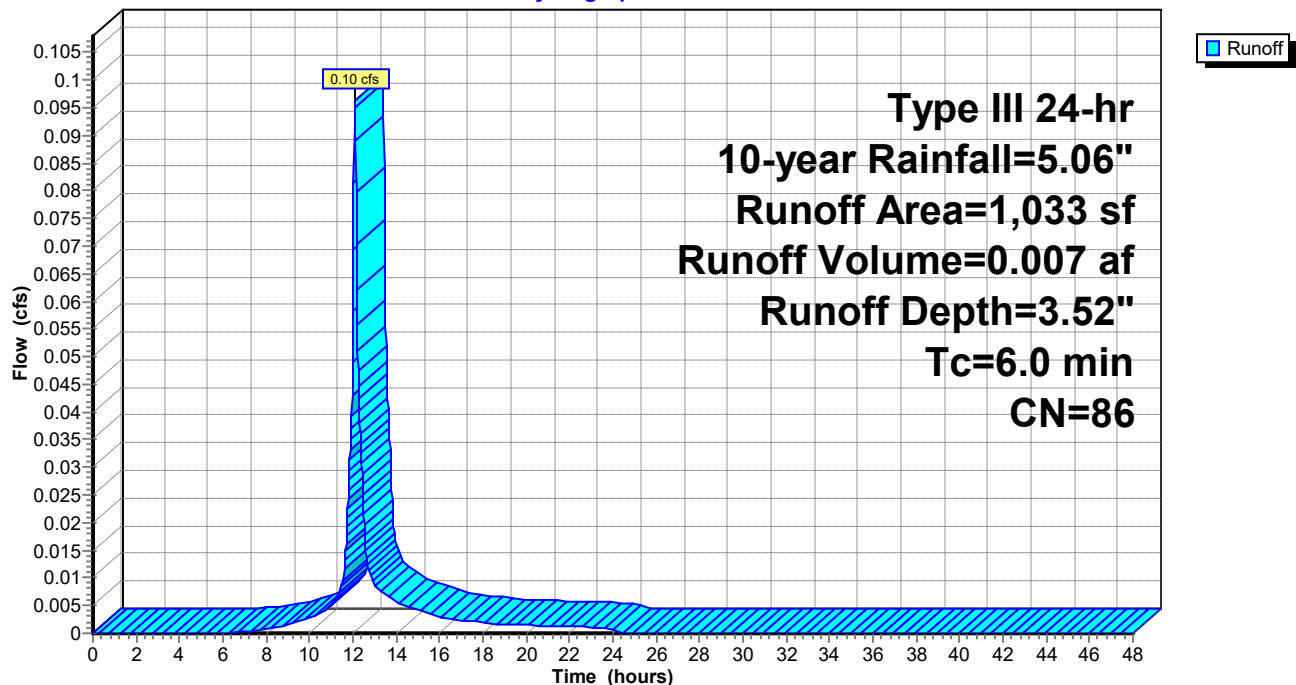
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 10-year Rainfall=5.06"

Area (sf)	CN	Description
511	98	Roofs, HSG C
522	74	>75% Grass cover, Good, HSG C
1,033	86	Weighted Average
522		50.53% Pervious Area
511		49.47% Impervious Area

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

### Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Hydrograph





### Summary for Subcatchment 4S: FDA-3 TO DESIGN POINT

[47] Hint: Peak is 343% of capacity of segment #3

Runoff = 5.13 cfs @ 12.22 hrs, Volume= 0.496 af, Depth= 2.41"  
Routed to Link 7L : DESIGN POINT

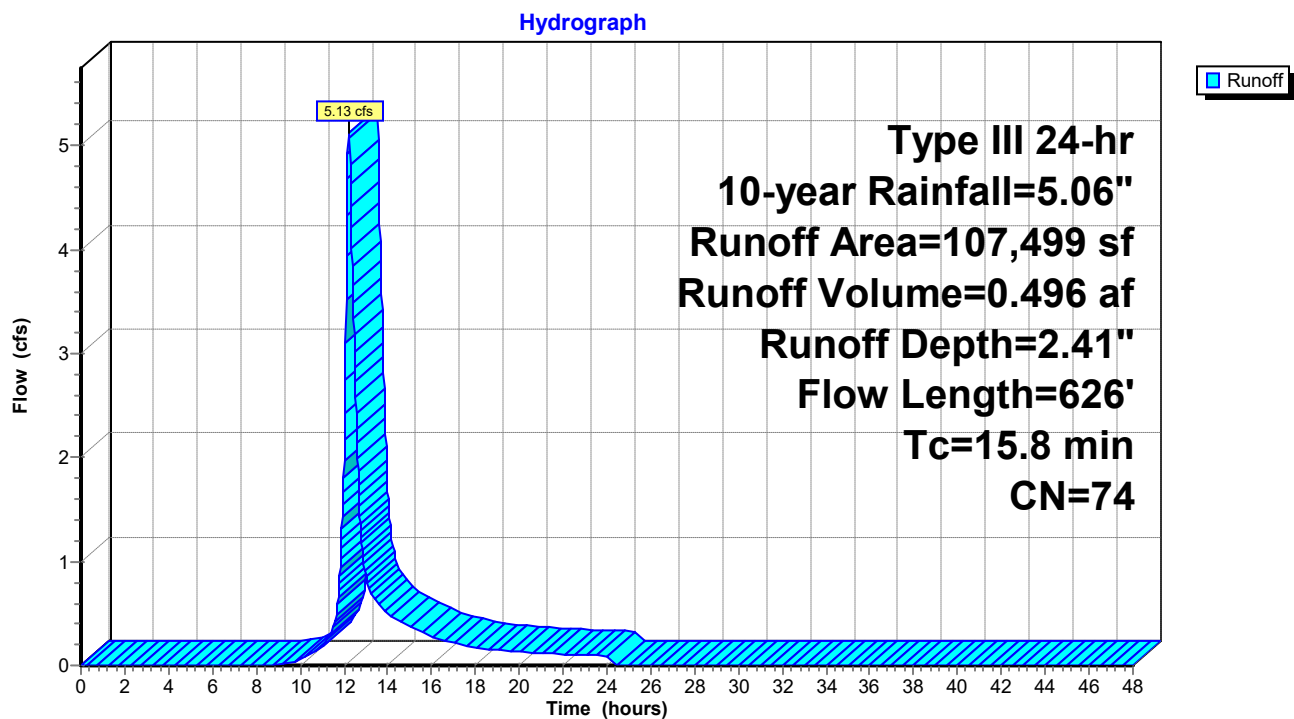
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 10-year Rainfall=5.06"

Area (sf)	CN	Description
6,406	98	Roofs, HSG C
* 1,042	96	Deck (use Gravel surface), HSG C
69,720	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,789	74	>75% Grass cover, Good, HSG C
107,499	74	Weighted Average
101,093		94.04% Pervious Area
6,406		5.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	79	0.1772	0.18		<b>Sheet Flow, A-B</b>
					Woods: Light underbrush n= 0.400 P2= 3.39"
1.9	147	0.0680	1.30		<b>Shallow Concentrated Flow, B-C</b>
					Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b>
					Bot.W=2.00' D=0.50' Z= 2.0 ' / ' Top.W=4.00'
					n= 0.070
15.8	626	Total			



**Subcatchment 4S: FDA-3 TO DESIGN POINT**





### Summary for Reach 9R: REACH 1.1

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 2.48" for 10-year event  
 Inflow = 0.16 cfs @ 12.21 hrs, Volume= 0.015 af  
 Outflow = 0.16 cfs @ 12.26 hrs, Volume= 0.015 af, Atten= 0%, Lag= 2.6 min  
 Routed to Reach 10R : REACH 1.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Max. Velocity= 0.71 fps, Min. Travel Time= 1.5 min

Avg. Velocity= 0.21 fps, Avg. Travel Time= 4.9 min

Peak Storage= 14 cf @ 12.23 hrs

Average Depth at Peak Storage= 0.02' , Surface Width= 10.44'

Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 2.07 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds

Side Slope Z-value= 10.0 ' ' Top Width= 12.00'

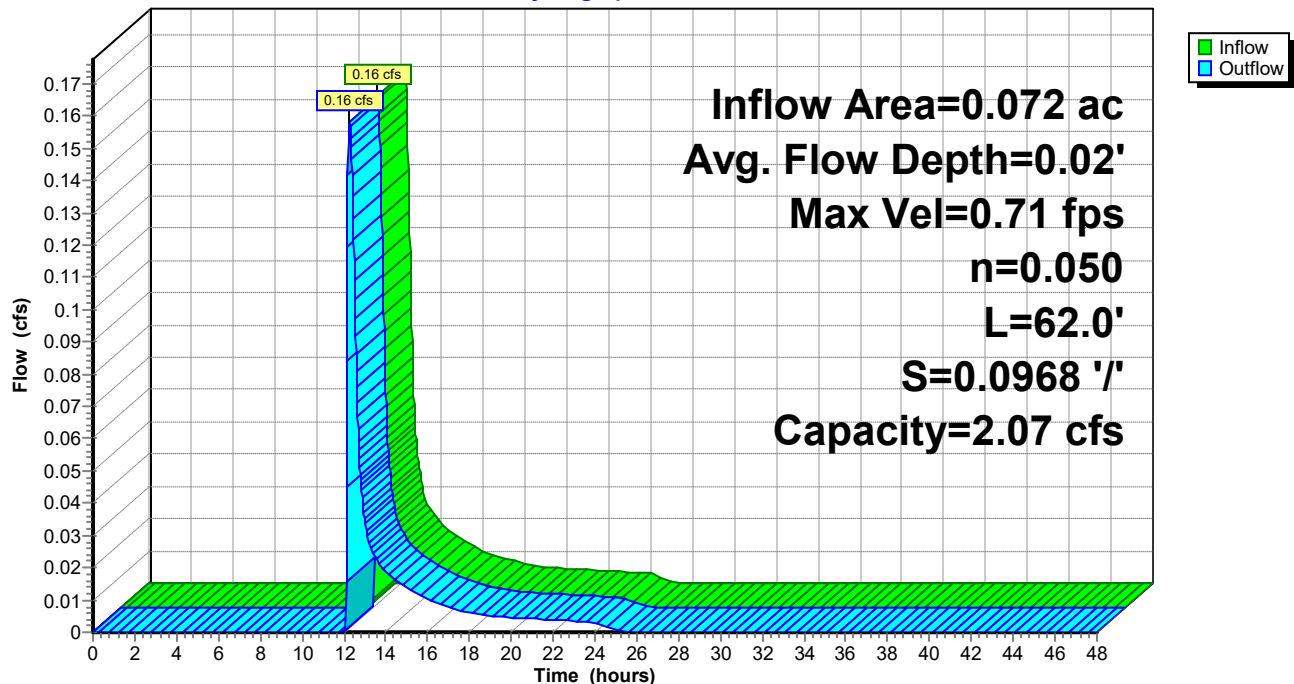
Length= 62.0' Slope= 0.0968 ' '

Inlet Invert= 381.00', Outlet Invert= 375.00'



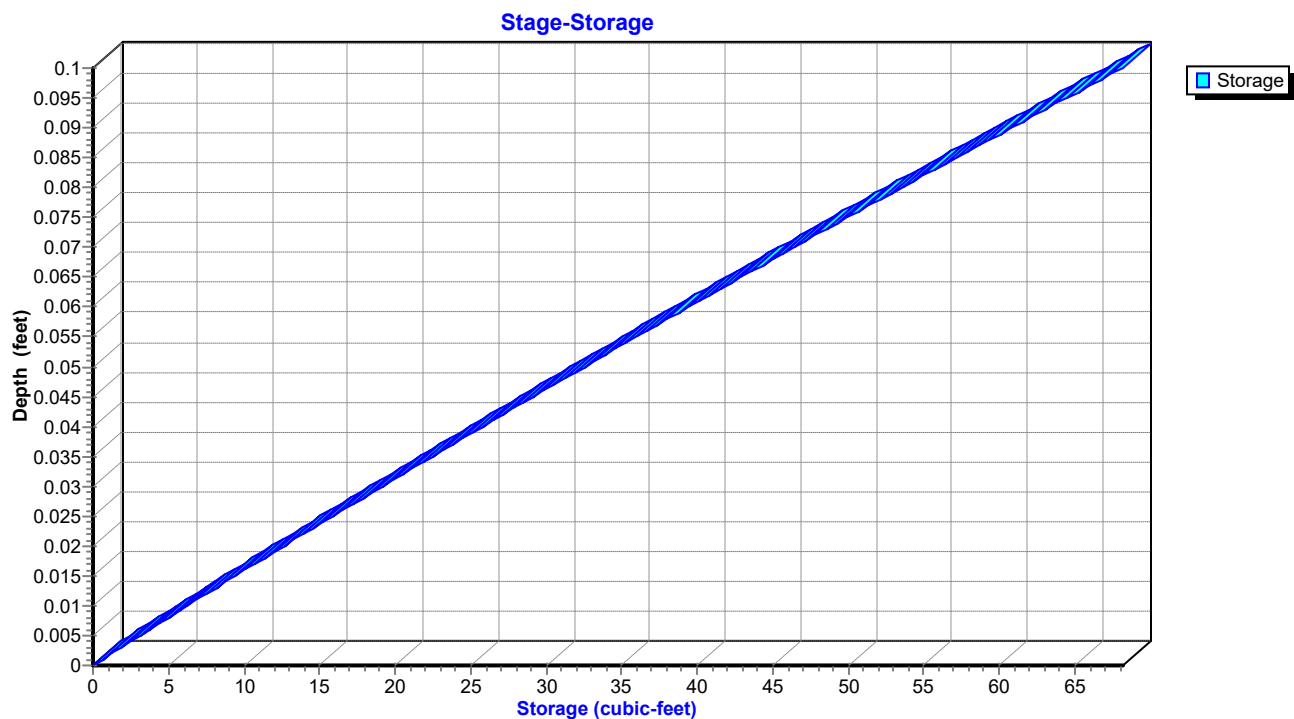
### Reach 9R: REACH 1.1

#### Hydrograph





### Reach 9R: REACH 1.1





**Summary for Reach 10R: REACH 1.2**

[62] Hint: Exceeded Reach 9R OUTLET depth by 0.10' @ 12.48 hrs

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 2.48" for 10-year event  
Inflow = 0.16 cfs @ 12.26 hrs, Volume= 0.015 af  
Outflow = 0.12 cfs @ 12.66 hrs, Volume= 0.015 af, Atten= 23%, Lag= 24.2 min  
Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Max. Velocity= 0.45 fps, Min. Travel Time= 12.1 min  
Avg. Velocity= 0.13 fps, Avg. Travel Time= 42.3 min

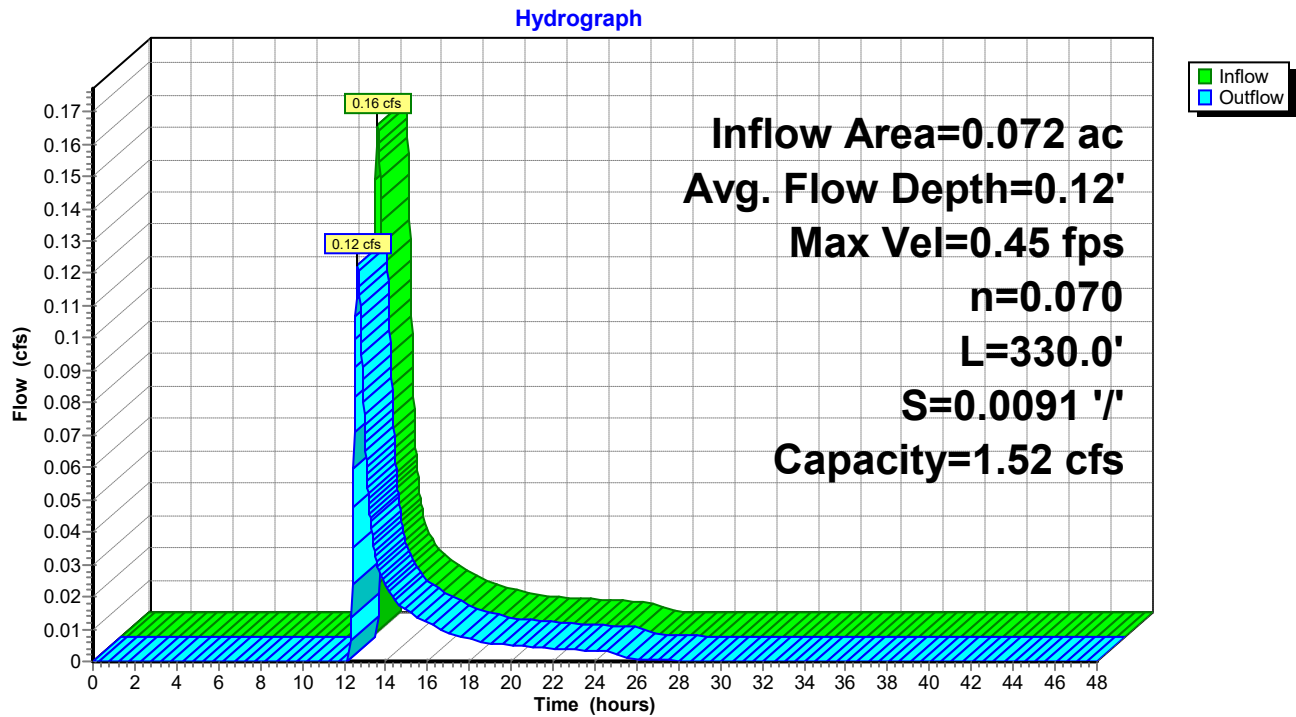
Peak Storage= 89 cf @ 12.46 hrs  
Average Depth at Peak Storage= 0.12', Surface Width= 2.48'  
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 1.52 cfs

2.00' x 0.50' deep channel, n= 0.070  
Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
Length= 330.0' Slope= 0.0091 '/'  
Inlet Invert= 375.00', Outlet Invert= 372.00'

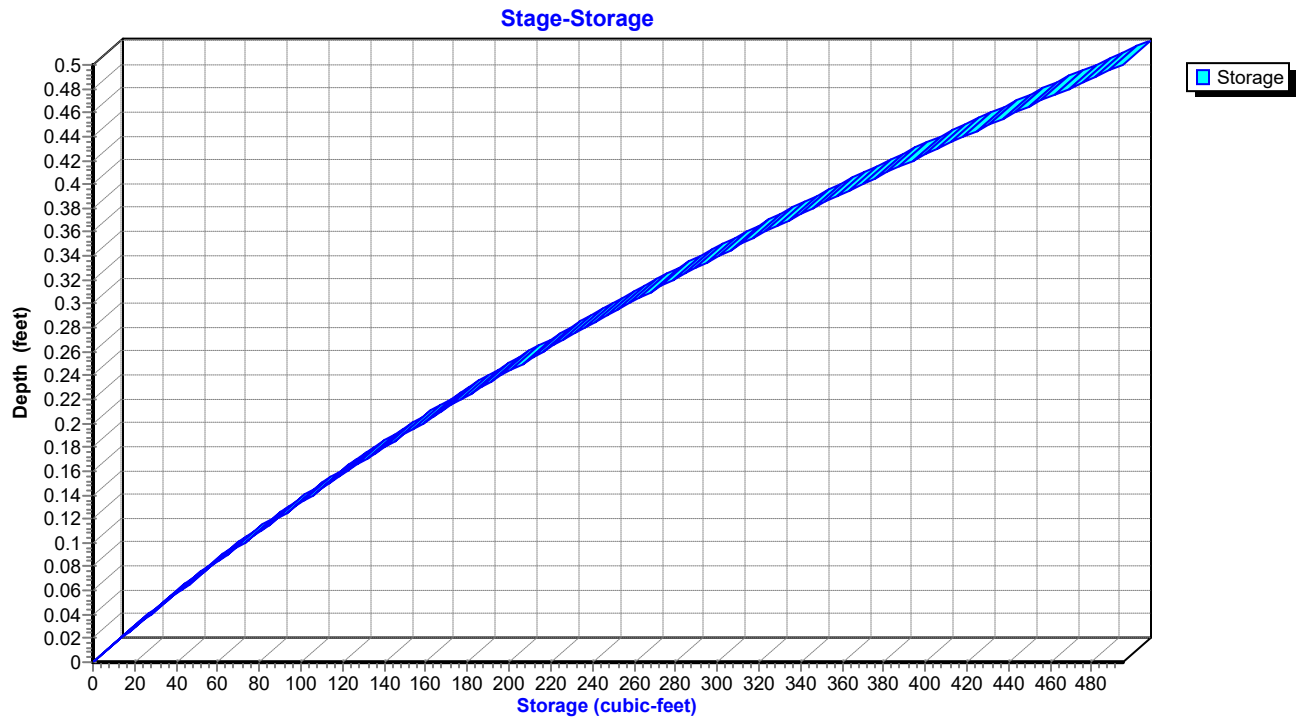




### Reach 10R: REACH 1.2



### Reach 10R: REACH 1.2





### Summary for Reach 11R: REACH 2.1

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 1.71" for 10-year event  
 Inflow = 0.02 cfs @ 12.49 hrs, Volume= 0.003 af  
 Outflow = 0.02 cfs @ 12.66 hrs, Volume= 0.003 af, Atten= 9%, Lag= 10.1 min  
 Routed to Reach 12R : REACH 2.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.27 fps, Min. Travel Time= 5.4 min  
 Avg. Velocity= 0.12 fps, Avg. Travel Time= 12.7 min

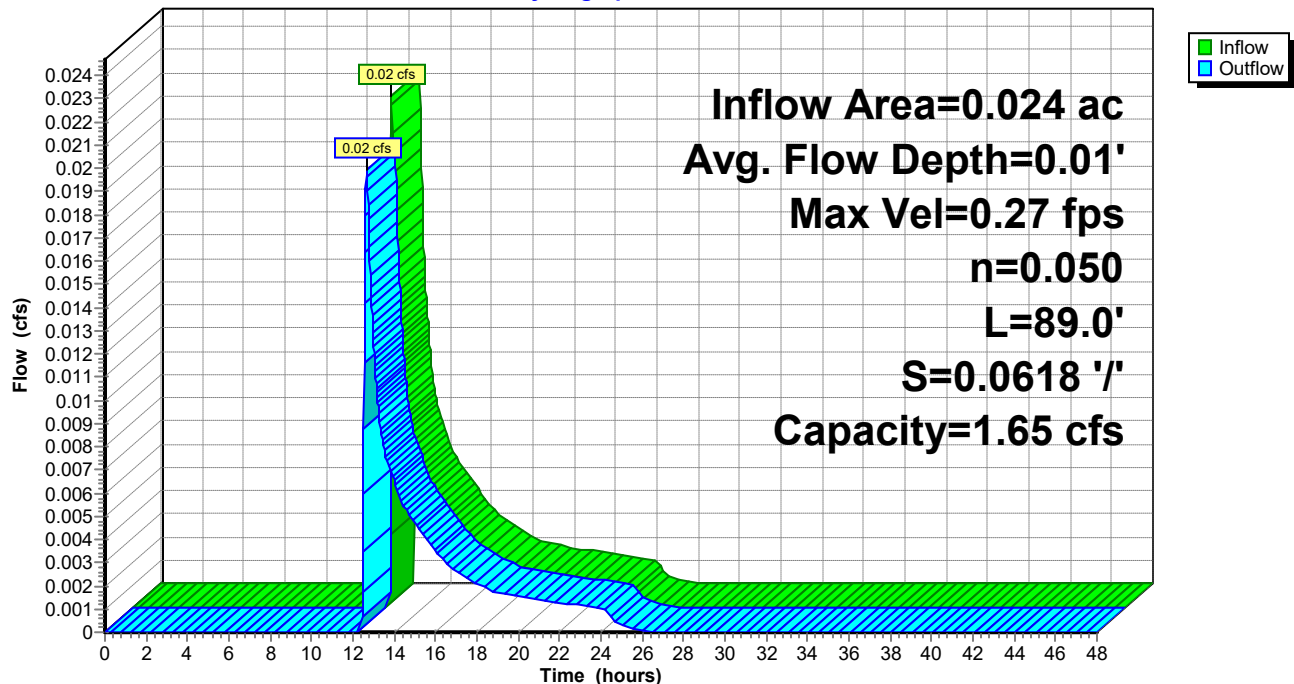
Peak Storage= 6 cf @ 12.57 hrs  
 Average Depth at Peak Storage= 0.01', Surface Width= 10.14'  
 Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 1.65 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds  
 Side Slope Z-value= 10.0 '/' Top Width= 12.00'  
 Length= 89.0' Slope= 0.0618 '/'  
 Inlet Invert= 378.00', Outlet Invert= 372.50'



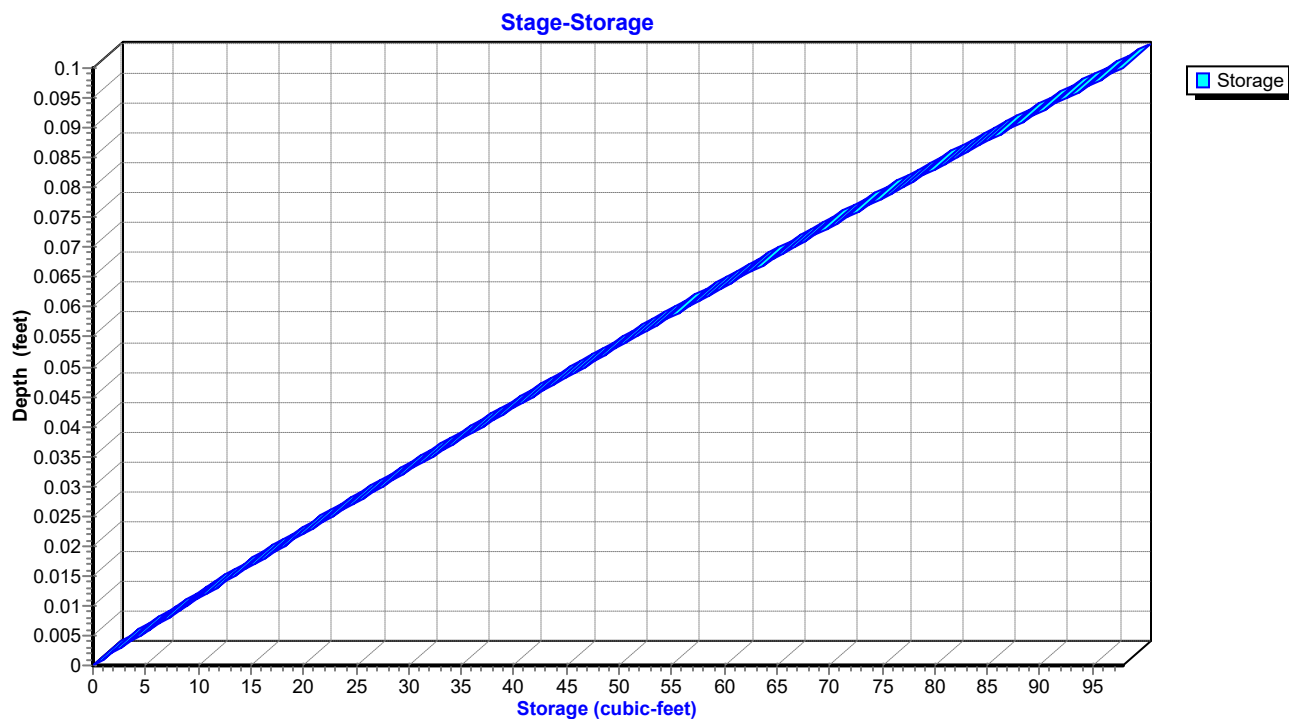
### Reach 11R: REACH 2.1

#### Hydrograph





### Reach 11R: REACH 2.1





**Summary for Reach 12R: REACH 2.2**

[62] Hint: Exceeded Reach 11R OUTLET depth by 0.04' @ 12.94 hrs

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 1.71" for 10-year event  
Inflow = 0.02 cfs @ 12.66 hrs, Volume= 0.003 af  
Outflow = 0.01 cfs @ 13.20 hrs, Volume= 0.003 af, Atten= 32%, Lag= 32.3 min  
Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Max. Velocity= 0.15 fps, Min. Travel Time= 16.5 min  
Avg. Velocity= 0.07 fps, Avg. Travel Time= 37.5 min

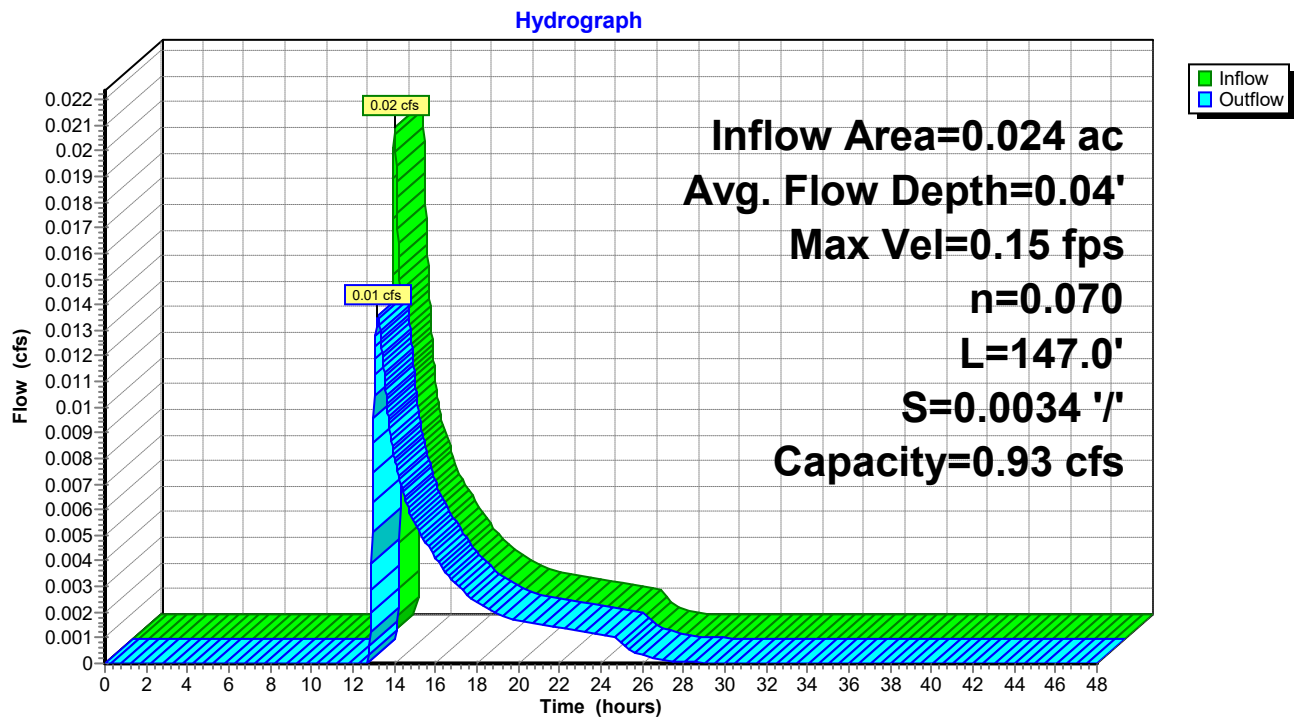
Peak Storage= 13 cf @ 12.93 hrs  
Average Depth at Peak Storage= 0.04' , Surface Width= 2.17'  
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 0.93 cfs

2.00' x 0.50' deep channel, n= 0.070  
Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
Length= 147.0' Slope= 0.0034 '/'  
Inlet Invert= 372.50', Outlet Invert= 372.00'

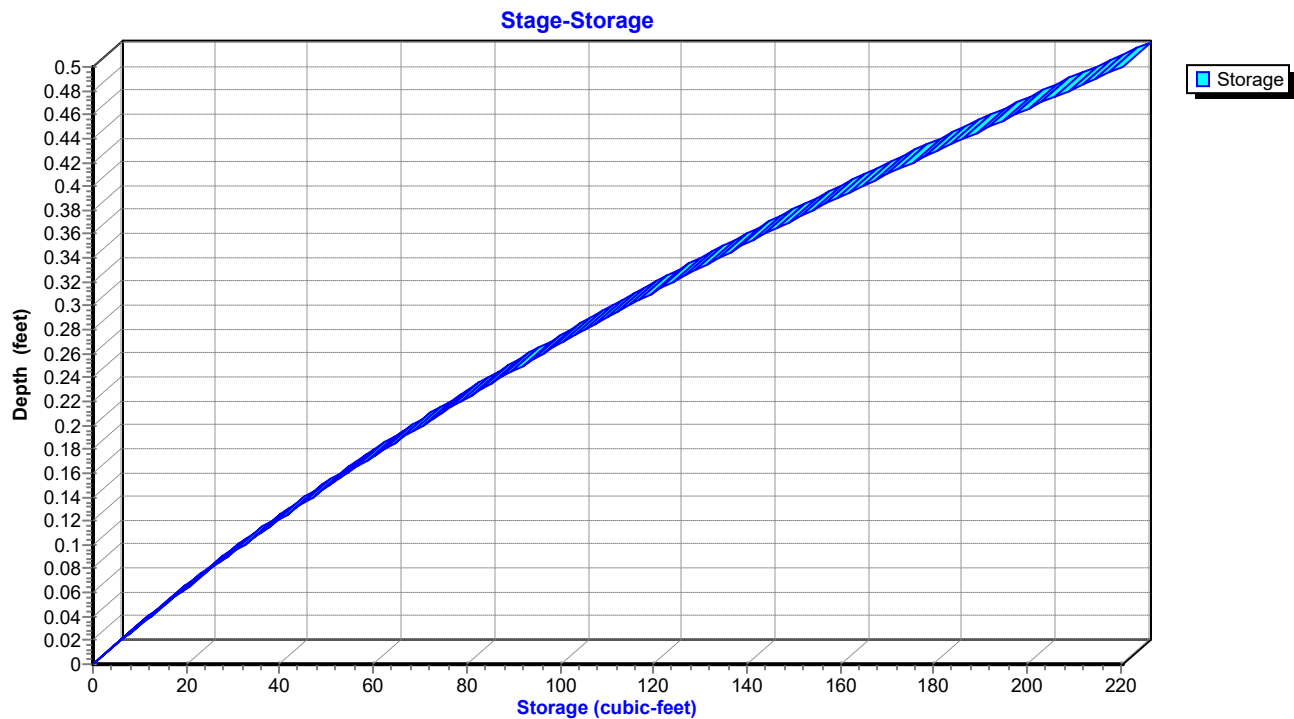




## Reach 12R: REACH 2.2



## Reach 12R: REACH 2.2





### Summary for Pond 5P: BIORET FACILITY

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 3.52" for 10-year event  
 Inflow = 0.29 cfs @ 12.09 hrs, Volume= 0.021 af  
 Outflow = 0.16 cfs @ 12.21 hrs, Volume= 0.015 af, Atten= 46%, Lag= 7.7 min  
 Primary = 0.16 cfs @ 12.21 hrs, Volume= 0.015 af  
 Routed to Reach 9R : REACH 1.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 382.14' @ 12.21 hrs Surf.Area= 631 sf Storage= 360 cf

Plug-Flow detention time= 166.6 min calculated for 0.015 af (70% of inflow)  
 Center-of-Mass det. time= 73.8 min ( 877.8 - 804.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	381.50'	598 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
381.50	463	0	0
381.75	555	127	127
382.00	603	145	272
382.50	700	326	598

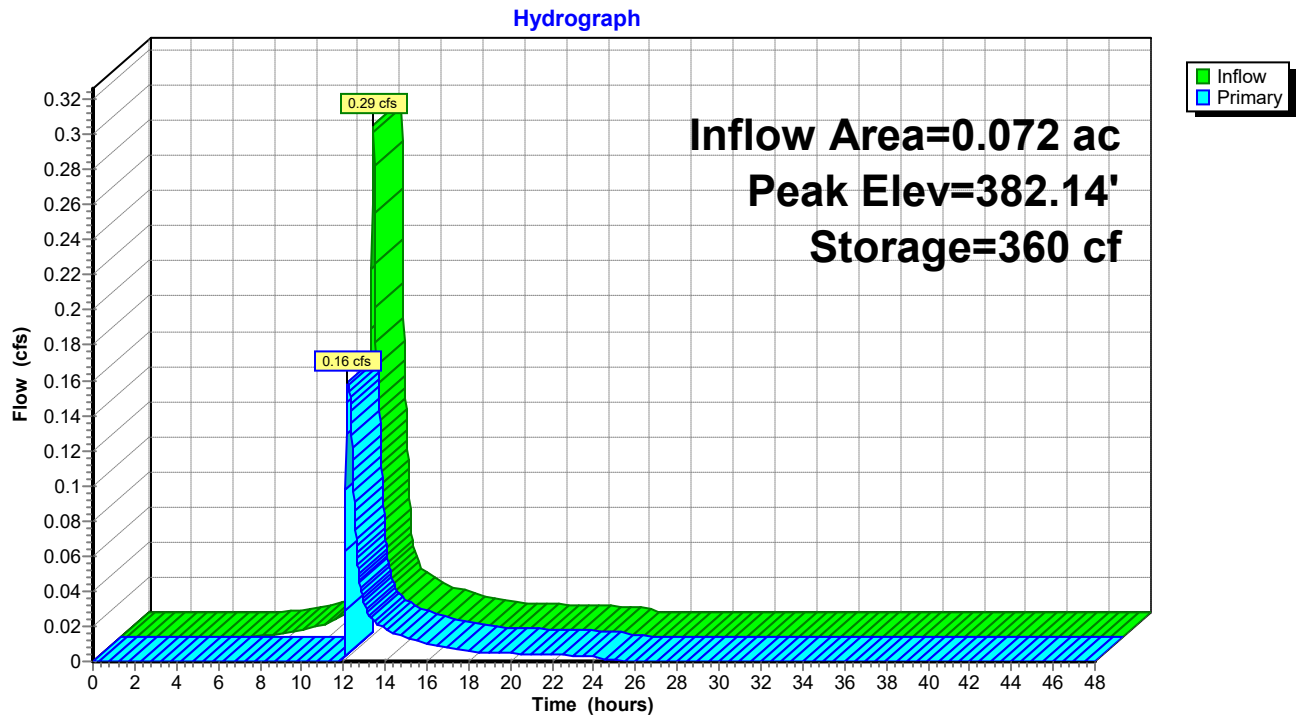
Device	Routing	Invert	Outlet Devices
#1	Primary	382.00'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Primary	382.25'	<b>3.0' long (Profile 7) Broad-Crested Rectangular Weir</b> Head (feet) 0.49 0.98 1.48 Coef. (English) 2.99 3.41 3.62

**Primary OutFlow** Max=0.16 cfs @ 12.21 hrs HW=382.14' (Free Discharge)

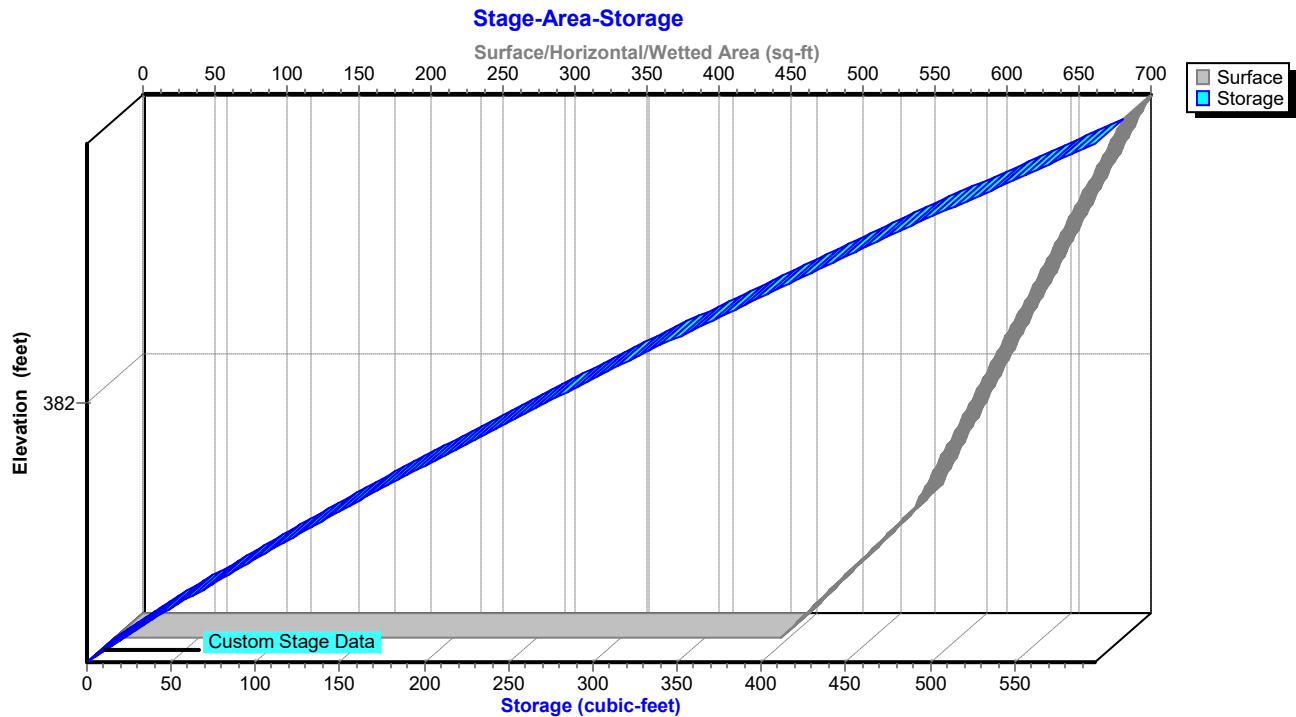
1=Orifice/Grate (Orifice Controls 0.16 cfs @ 1.82 fps)  
 2=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)



### Pond 5P: BIORET FACILITY



### Pond 5P: BIORET FACILITY





### Summary for Pond 6P: RAIN GARDEN

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 3.52" for 10-year event  
 Inflow = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af  
 Outflow = 0.02 cfs @ 12.49 hrs, Volume= 0.003 af, Atten= 77%, Lag= 24.5 min  
 Primary = 0.02 cfs @ 12.49 hrs, Volume= 0.003 af  
 Routed to Reach 11R : REACH 2.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 379.53' @ 12.49 hrs Surf.Area= 353 sf Storage= 168 cf

Plug-Flow detention time= 246.7 min calculated for 0.003 af (49% of inflow)  
 Center-of-Mass det. time= 133.0 min ( 937.0 - 804.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	379.00'	249 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
379.00	282	0	0
379.25	310	74	74
379.50	346	82	156
379.75	400	93	249

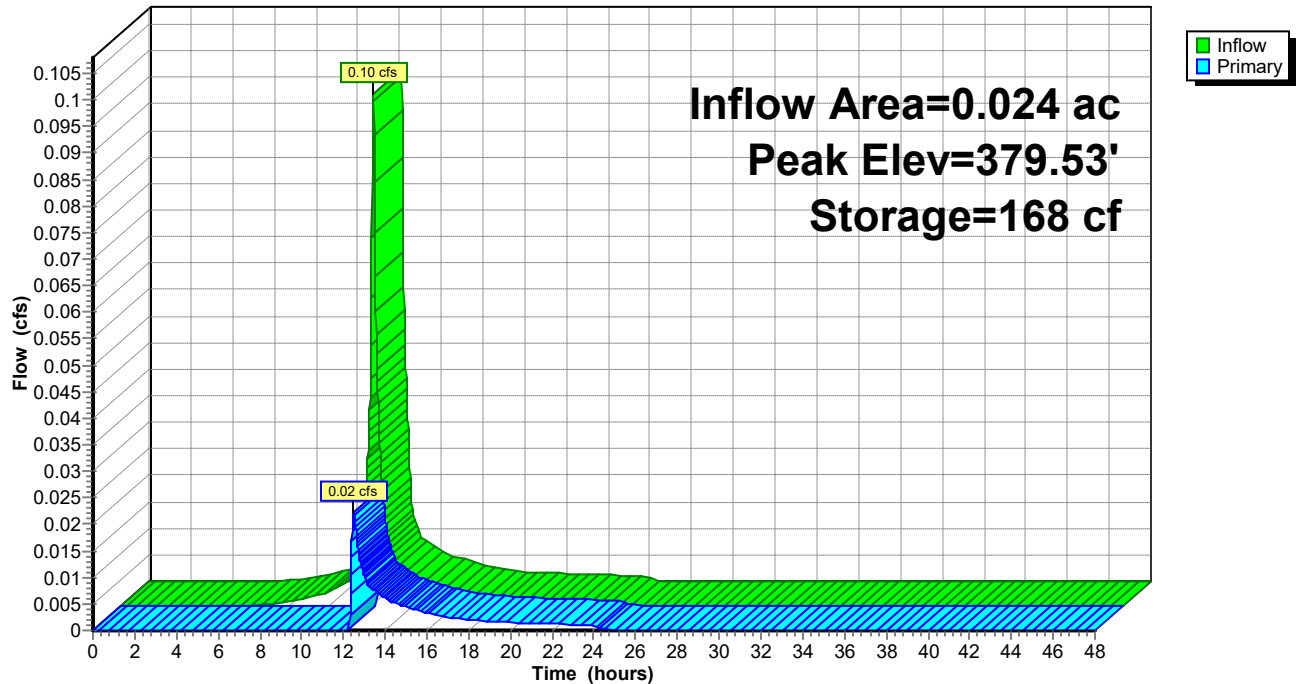
Device	Routing	Invert	Outlet Devices
#1	Primary	379.50'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=0.02 cfs @ 12.49 hrs HW=379.53' (Free Discharge)  
 ↑ **1=Orifice/Grate** (Weir Controls 0.02 cfs @ 0.61 fps)



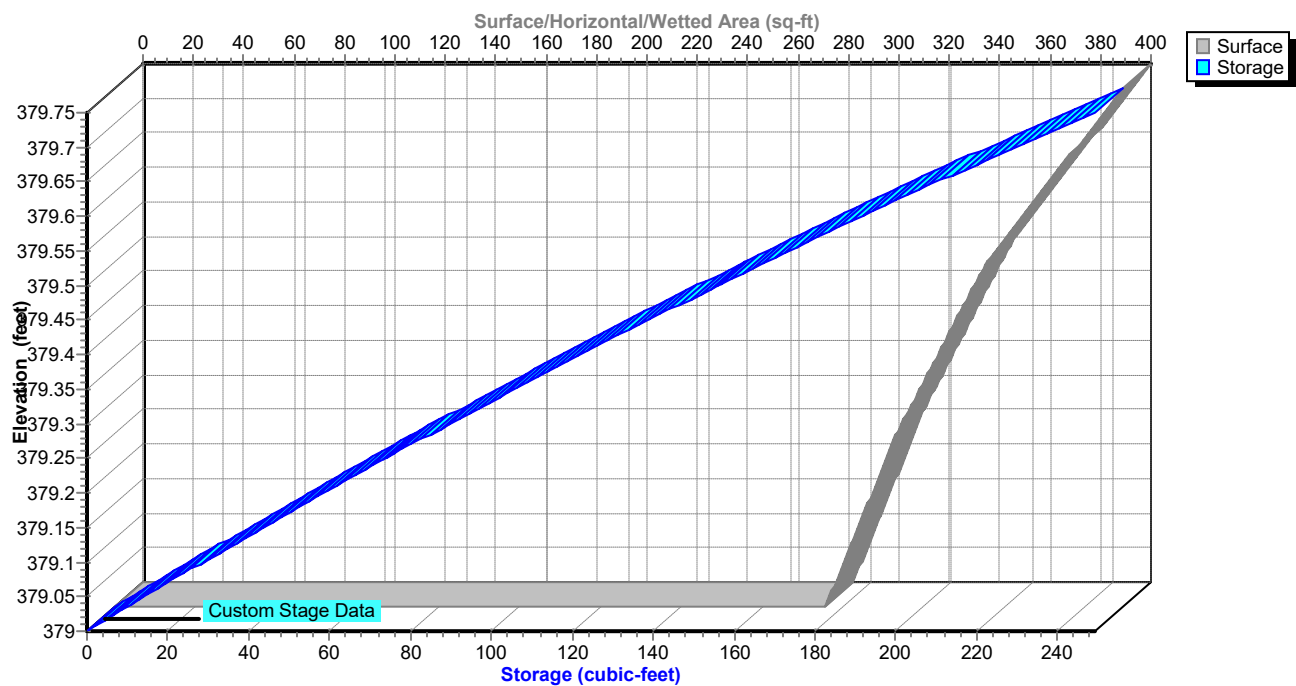
### Pond 6P: RAIN GARDEN

Hydrograph



### Pond 6P: RAIN GARDEN

Stage-Area-Storage



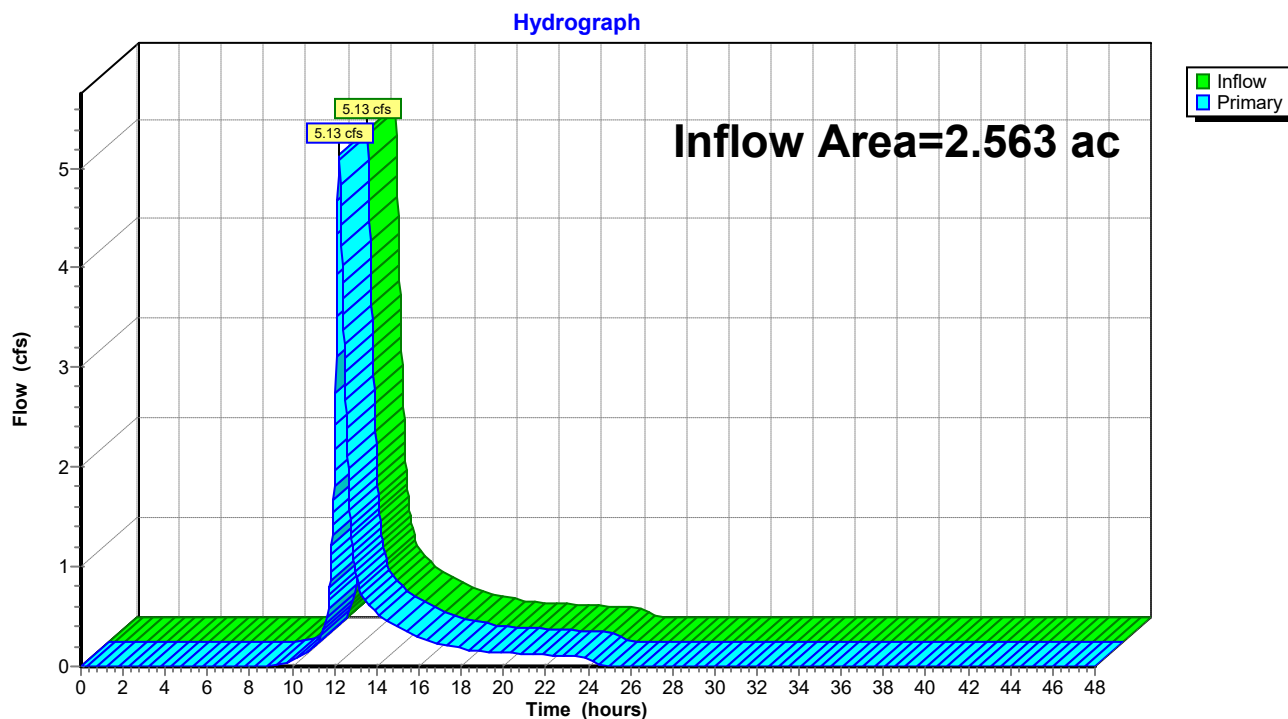


### Summary for Link 7L: DESIGN POINT

Inflow Area = 2.563 ac, 7.64% Impervious, Inflow Depth = 2.41" for 10-year event  
 Inflow = 5.13 cfs @ 12.22 hrs, Volume= 0.514 af  
 Primary = 5.13 cfs @ 12.22 hrs, Volume= 0.514 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

### Link 7L: DESIGN POINT





**23 Waccabuc Rd SW Plan\_11-28-2021***Type III 24-hr 25-year Rainfall=6.36"*

Prepared by ALP Engineering &amp; Land. Arch. PLLC

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Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 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: XDA-1 TO DESIGN** Runoff Area=111,651 sf 5.74% Impervious Runoff Depth=3.49"  
Flow Length=621' Tc=16.3 min CN=74 Runoff=7.68 cfs 0.745 af

**Subcatchment 2S: FDA-1 TO SW PRACTICE** Runoff Area=3,119 sf 51.72% Impervious Runoff Depth=4.75"  
Tc=6.0 min CN=86 Runoff=0.39 cfs 0.028 af

**Subcatchment 3S: FDA-2 TO SW PRACTICE** Runoff Area=1,033 sf 49.47% Impervious Runoff Depth=4.75"  
Tc=6.0 min CN=86 Runoff=0.13 cfs 0.009 af

**Subcatchment 4S: FDA-3 TO DESIGN** Runoff Area=107,499 sf 5.96% Impervious Runoff Depth=3.49"  
Flow Length=626' Tc=15.8 min CN=74 Runoff=7.48 cfs 0.718 af

**Reach 9R: REACH 1.1** Avg. Flow Depth=0.03' Max Vel=0.81 fps Inflow=0.22 cfs 0.022 af  
n=0.050 L=62.0' S=0.0968 '/' Capacity=2.07 cfs Outflow=0.22 cfs 0.022 af

**Reach 10R: REACH 1.2** Avg. Flow Depth=0.16' Max Vel=0.53 fps Inflow=0.22 cfs 0.022 af  
n=0.070 L=330.0' S=0.0091 '/' Capacity=1.52 cfs Outflow=0.19 cfs 0.022 af

**Reach 11R: REACH 2.1** Avg. Flow Depth=0.01' Max Vel=0.43 fps Inflow=0.07 cfs 0.006 af  
n=0.050 L=89.0' S=0.0618 '/' Capacity=1.65 cfs Outflow=0.06 cfs 0.006 af

**Reach 12R: REACH 2.2** Avg. Flow Depth=0.09' Max Vel=0.23 fps Inflow=0.06 cfs 0.006 af  
n=0.070 L=147.0' S=0.0034 '/' Capacity=0.93 cfs Outflow=0.05 cfs 0.006 af

**Pond 5P: BIORET FACILITY** Peak Elev=382.26' Storage=433 cf Inflow=0.39 cfs 0.028 af  
Outflow=0.22 cfs 0.022 af

**Pond 6P: RAIN GARDEN** Peak Elev=379.57' Storage=182 cf Inflow=0.13 cfs 0.009 af  
Outflow=0.07 cfs 0.006 af

**Link 7L: DESIGN POINT** Inflow=7.49 cfs 0.746 af  
Primary=7.49 cfs 0.746 af

**Total Runoff Area = 5.126 ac Runoff Volume = 1.501 af Average Runoff Depth = 3.51"**  
**93.31% Pervious = 4.783 ac 6.69% Impervious = 0.343 ac**



### Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT

[47] Hint: Peak is 514% of capacity of segment #3

Runoff = 7.68 cfs @ 12.22 hrs, Volume= 0.745 af, Depth= 3.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 25-year Rainfall=6.36"

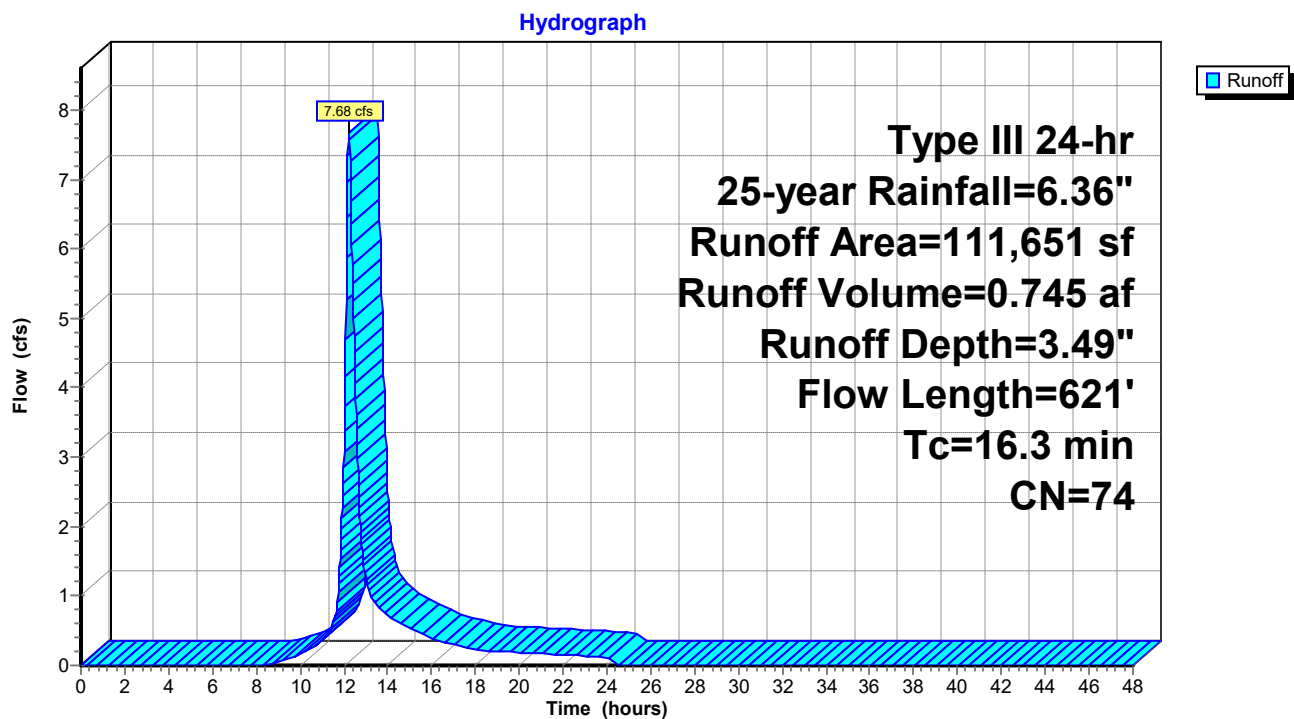
Area (sf)	CN	Description
6,406	98	Roofs, HSG C
1,298	89	Gravel roads, HSG C
74,065	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,340	74	>75% Grass cover, Good, HSG C
111,651	74	Weighted Average
105,245		94.26% Pervious Area
6,406		5.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	84	0.1607	0.18		<b>Sheet Flow, A-B</b> Woods: Light underbrush n= 0.400 P2= 3.39"
1.7	137	0.0766	1.38		<b>Shallow Concentrated Flow, B-C</b> Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b> Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.070 Sluggish weedy reaches w/pools
16.3	621	Total			



**Subcatchment 1S: XDA-1 TO DESIGN POINT**





### Summary for Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 4.75"  
Routed to Pond 5P : BIORET FACILITY

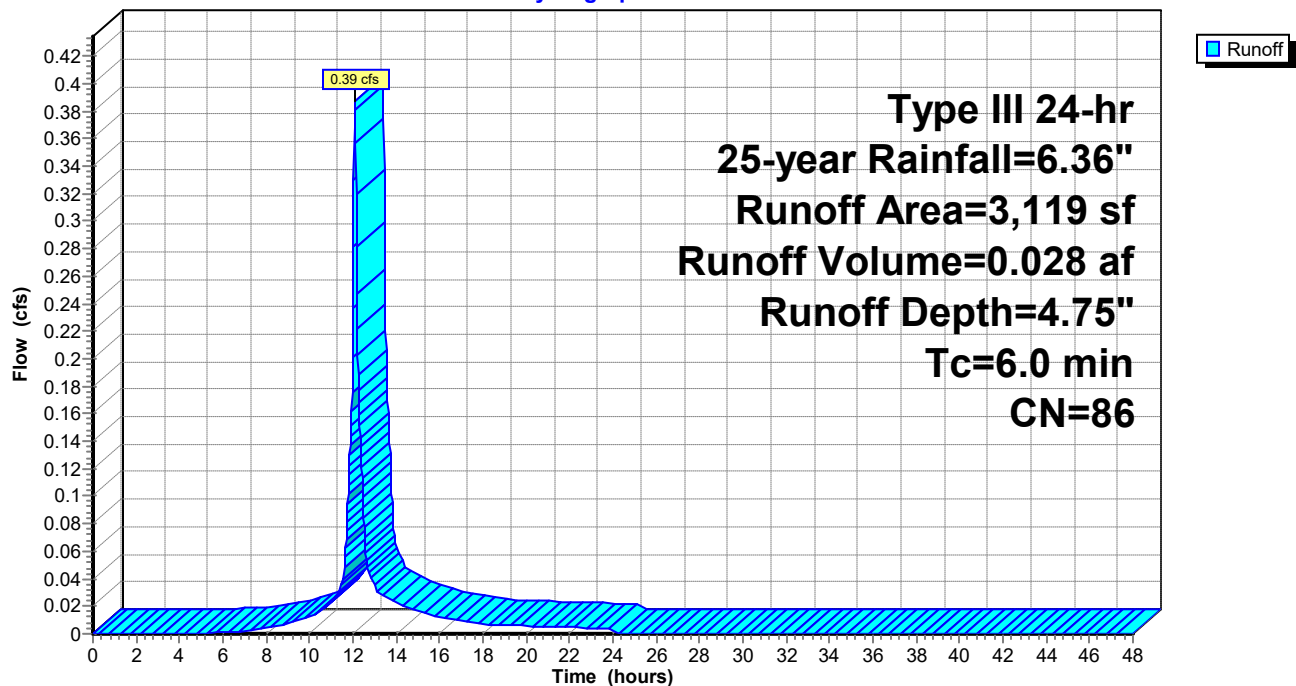
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 25-year Rainfall=6.36"

	Area (sf)	CN	Description
*	1,418	98	Pool & Pool Patio, HSG C
	1,506	74	>75% Grass cover, Good, HSG C
*	195	98	Canopy over Deck, HSG B
	3,119	86	Weighted Average
	1,506		48.28% Pervious Area
	1,613		51.72% Impervious Area

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

### Subcatchment 2S: FDA-1 TO SW PRACTICE #1

Hydrograph





### Summary for Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af, Depth= 4.75"  
Routed to Pond 6P : RAIN GARDEN

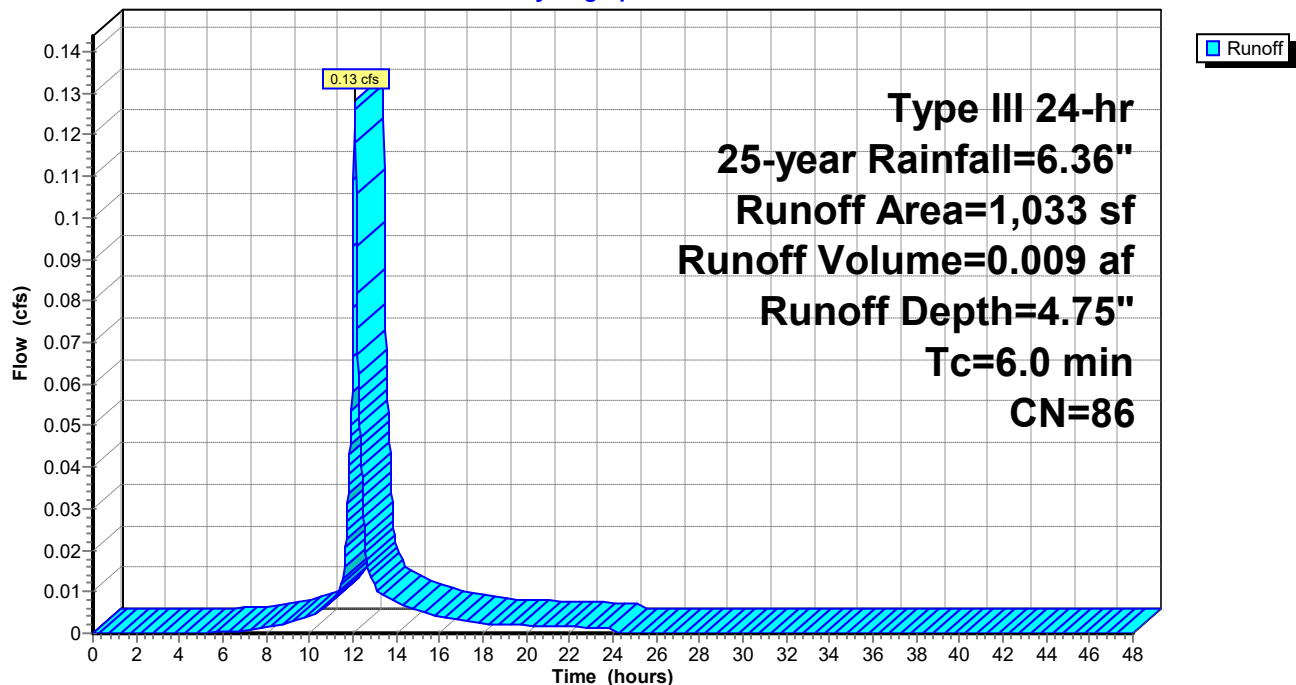
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 25-year Rainfall=6.36"

Area (sf)	CN	Description
511	98	Roofs, HSG C
522	74	>75% Grass cover, Good, HSG C
1,033	86	Weighted Average
522		50.53% Pervious Area
511		49.47% Impervious Area

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

### Subcatchment 3S: FDA-2 TO SW PRACTICE #2

Hydrograph





### Summary for Subcatchment 4S: FDA-3 TO DESIGN POINT

[47] Hint: Peak is 500% of capacity of segment #3

Runoff = 7.48 cfs @ 12.22 hrs, Volume= 0.718 af, Depth= 3.49"  
Routed to Link 7L : DESIGN POINT

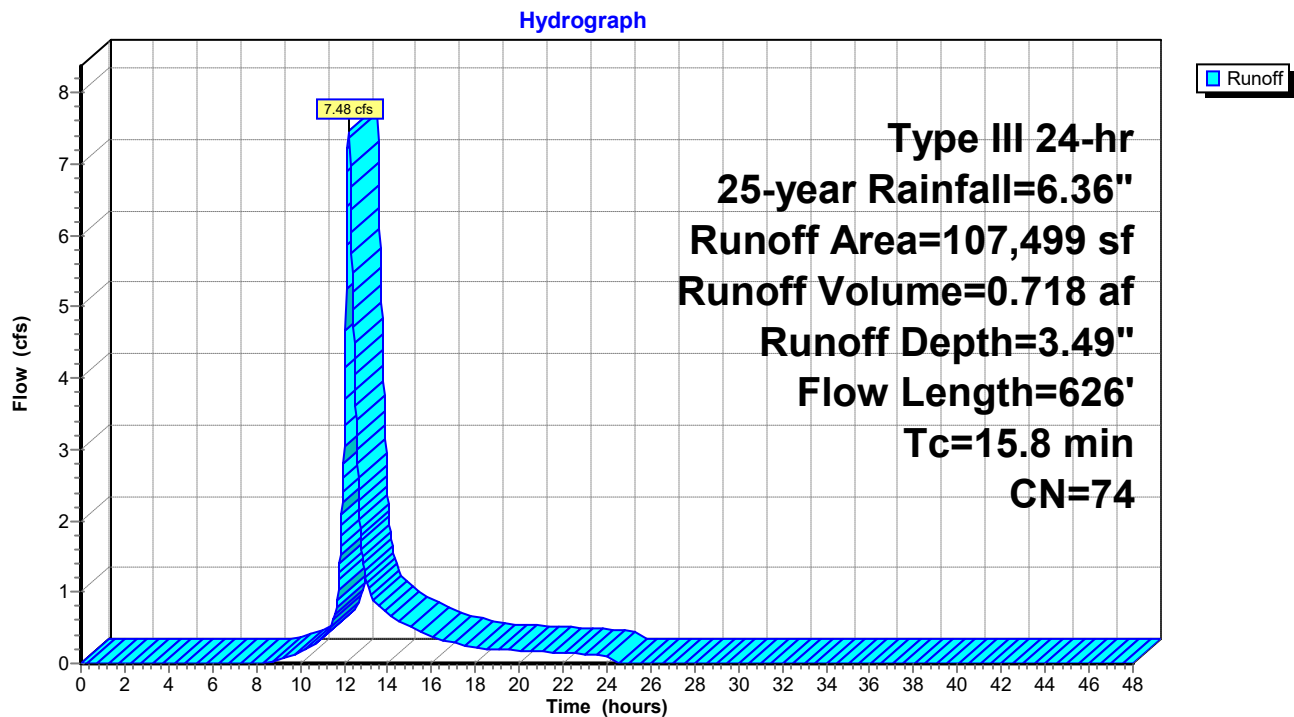
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Type III 24-hr 25-year Rainfall=6.36"

Area (sf)	CN	Description
6,406	98	Roofs, HSG C
* 1,042	96	Deck (use Gravel surface), HSG C
69,720	70	Woods, Good, HSG C
22,542	77	Woods, Good, HSG D
7,789	74	>75% Grass cover, Good, HSG C
107,499	74	Weighted Average
101,093		94.04% Pervious Area
6,406		5.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	79	0.1772	0.18		<b>Sheet Flow, A-B</b>
					Woods: Light underbrush n= 0.400 P2= 3.39"
1.9	147	0.0680	1.30		<b>Shallow Concentrated Flow, B-C</b>
					Woodland Kv= 5.0 fps
6.7	400	0.0088	1.00	1.50	<b>Trap/Vee/Rect Channel Flow, C-D</b>
					Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00'
					n= 0.070
15.8	626	Total			



**Subcatchment 4S: FDA-3 TO DESIGN POINT**





### Summary for Reach 9R: REACH 1.1

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 3.71" for 25-year event  
 Inflow = 0.22 cfs @ 12.20 hrs, Volume= 0.022 af  
 Outflow = 0.22 cfs @ 12.24 hrs, Volume= 0.022 af, Atten= 0%, Lag= 2.2 min  
 Routed to Reach 10R : REACH 1.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.81 fps, Min. Travel Time= 1.3 min  
 Avg. Velocity= 0.24 fps, Avg. Travel Time= 4.4 min

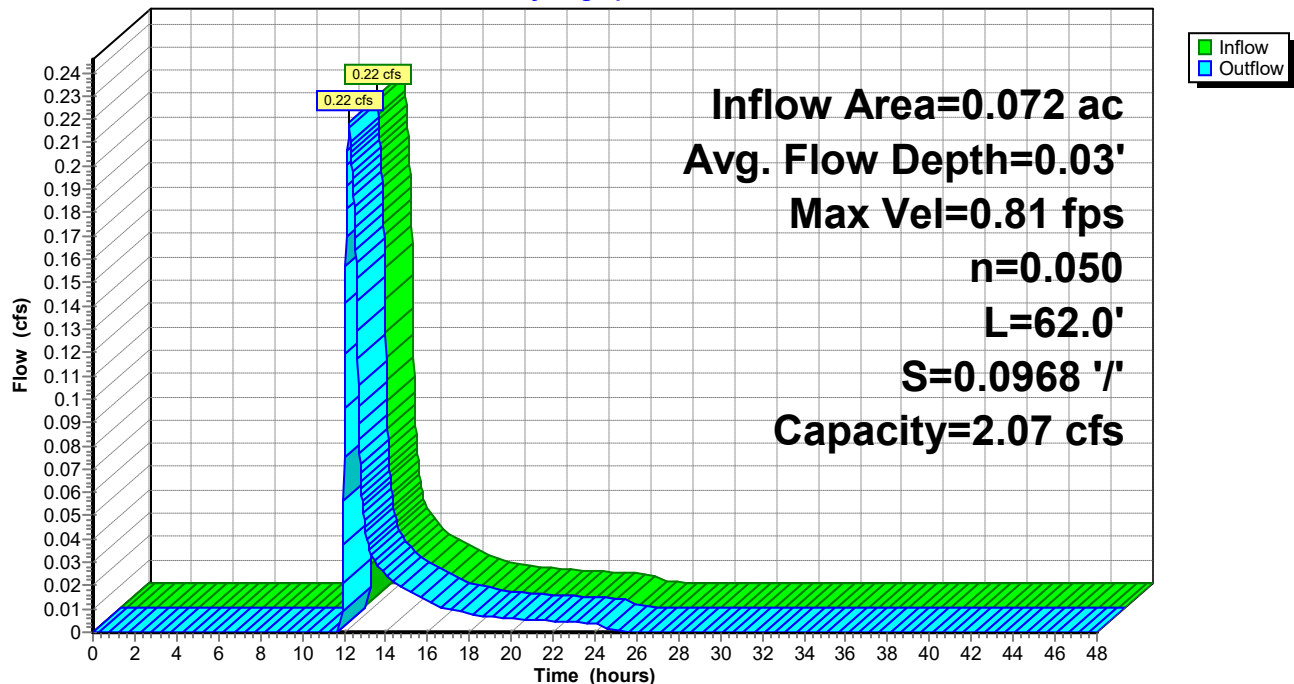
Peak Storage= 17 cf @ 12.22 hrs  
 Average Depth at Peak Storage= 0.03' , Surface Width= 10.53'  
 Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 2.07 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds  
 Side Slope Z-value= 10.0 ' ' Top Width= 12.00'  
 Length= 62.0' Slope= 0.0968 ' '  
 Inlet Invert= 381.00', Outlet Invert= 375.00'



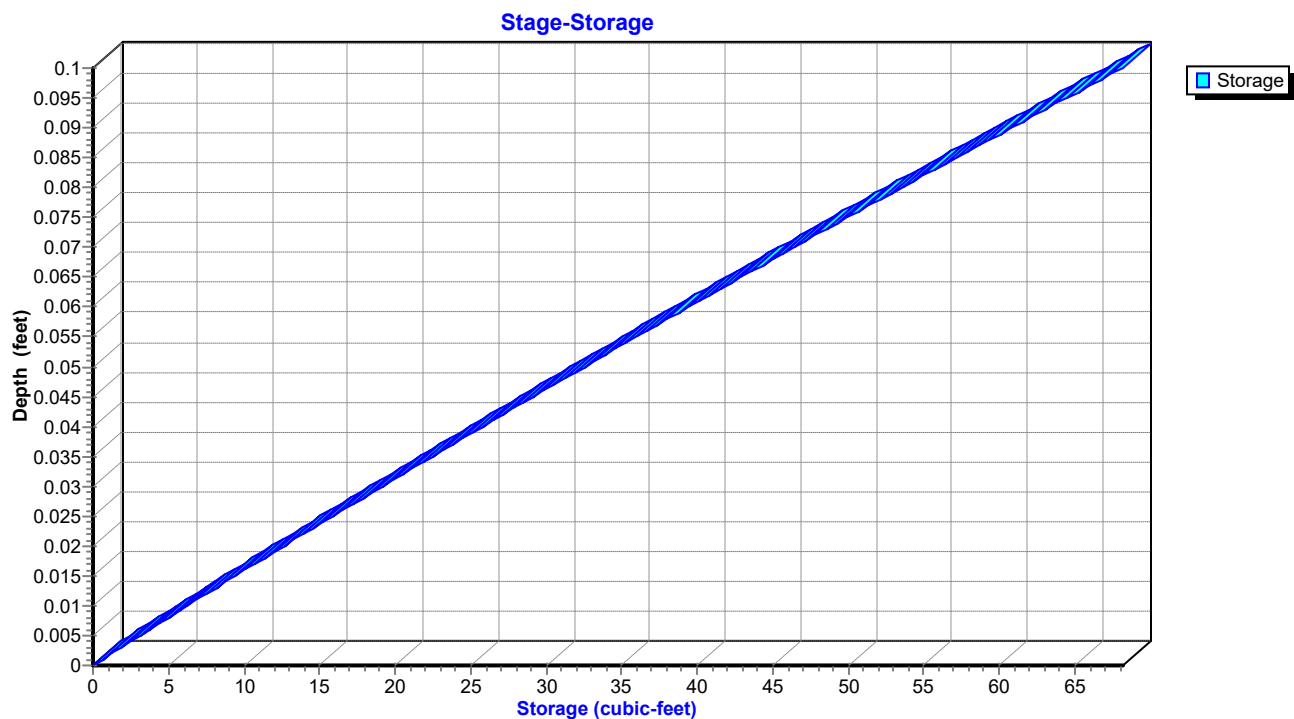
### Reach 9R: REACH 1.1

#### Hydrograph





### Reach 9R: REACH 1.1





**Summary for Reach 10R: REACH 1.2**

[62] Hint: Exceeded Reach 9R OUTLET depth by 0.13' @ 12.46 hrs

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 3.71" for 25-year event  
Inflow = 0.22 cfs @ 12.24 hrs, Volume= 0.022 af  
Outflow = 0.19 cfs @ 12.61 hrs, Volume= 0.022 af, Atten= 12%, Lag= 22.0 min  
Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Max. Velocity= 0.53 fps, Min. Travel Time= 10.4 min  
Avg. Velocity= 0.14 fps, Avg. Travel Time= 38.4 min

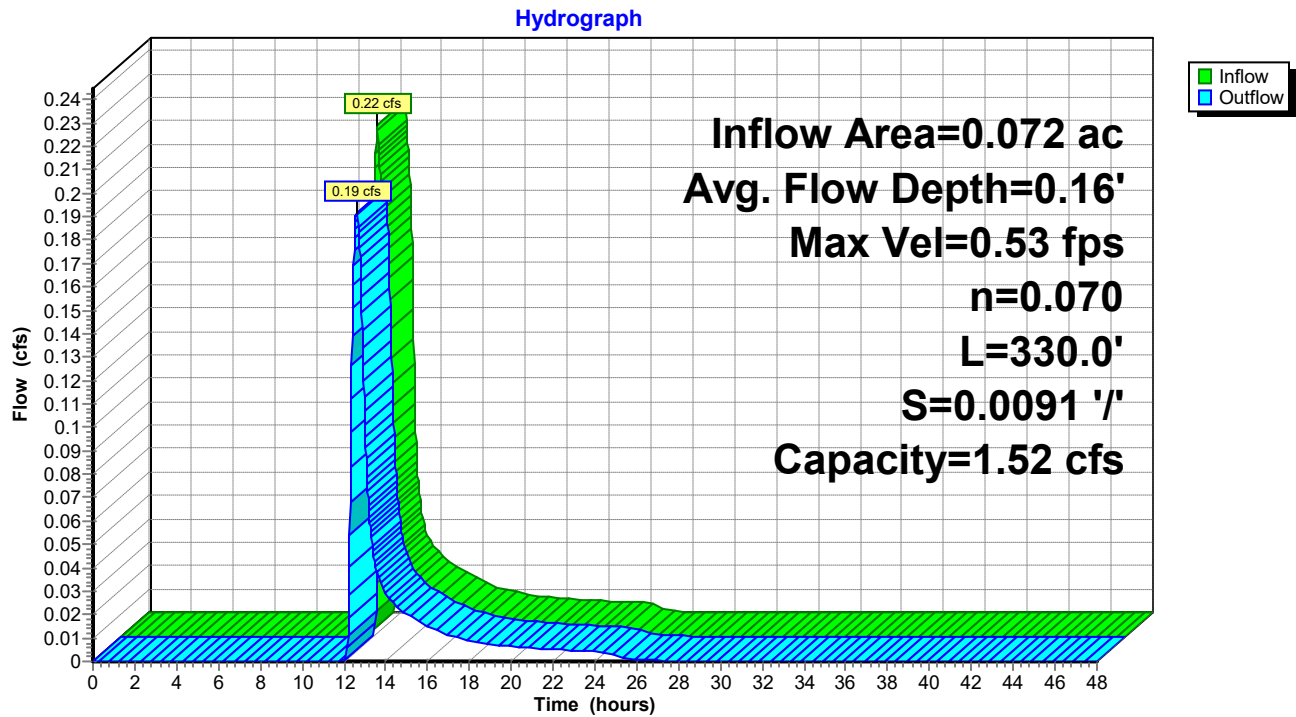
Peak Storage= 119 cf @ 12.43 hrs  
Average Depth at Peak Storage= 0.16', Surface Width= 2.63'  
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 1.52 cfs

2.00' x 0.50' deep channel, n= 0.070  
Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
Length= 330.0' Slope= 0.0091 '/'  
Inlet Invert= 375.00', Outlet Invert= 372.00'

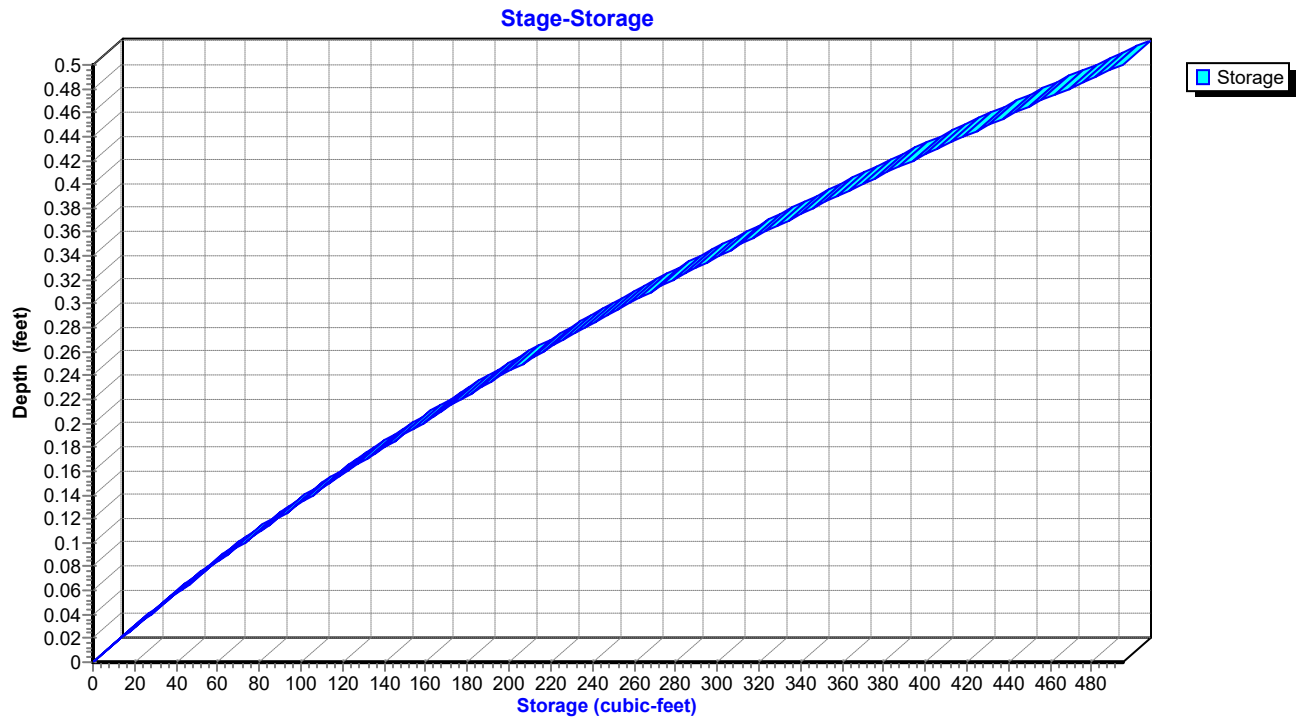




### Reach 10R: REACH 1.2



### Reach 10R: REACH 1.2





### Summary for Reach 11R: REACH 2.1

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 2.94" for 25-year event  
 Inflow = 0.07 cfs @ 12.23 hrs, Volume= 0.006 af  
 Outflow = 0.06 cfs @ 12.34 hrs, Volume= 0.006 af, Atten= 6%, Lag= 7.2 min  
 Routed to Reach 12R : REACH 2.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Max. Velocity= 0.43 fps, Min. Travel Time= 3.4 min  
 Avg. Velocity= 0.13 fps, Avg. Travel Time= 11.2 min

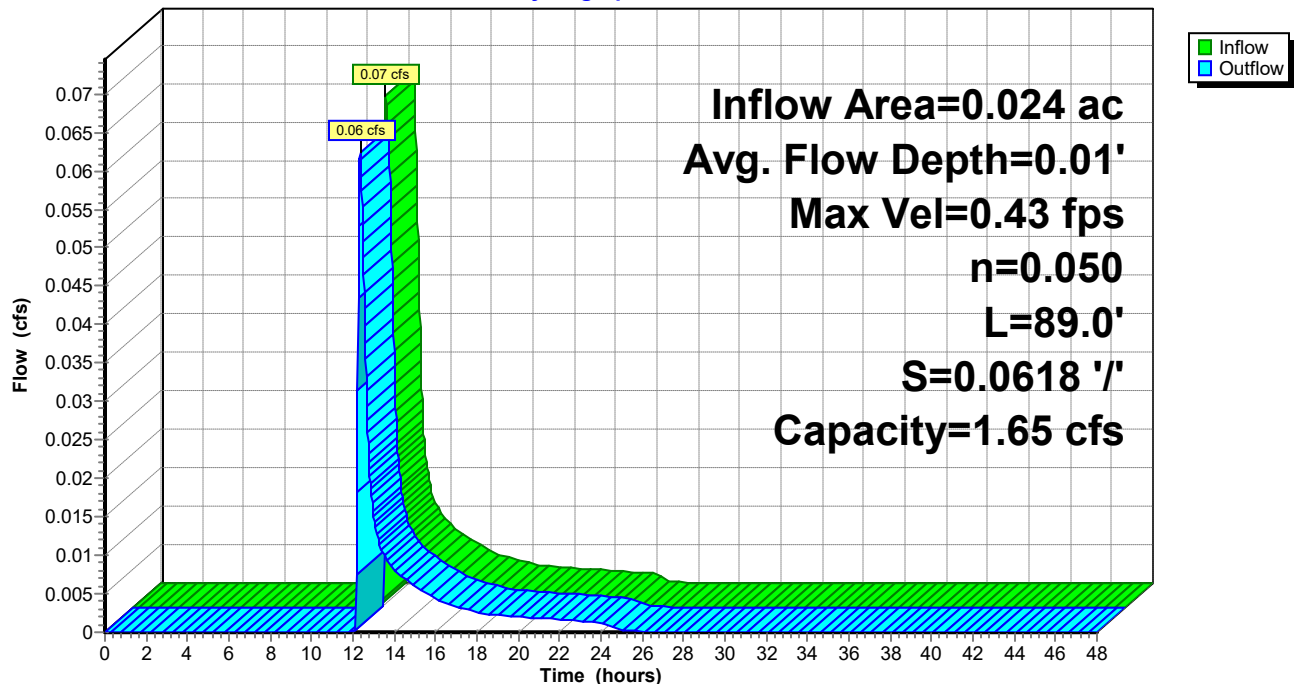
Peak Storage= 13 cf @ 12.29 hrs  
 Average Depth at Peak Storage= 0.01', Surface Width= 10.29'  
 Bank-Full Depth= 0.10' Flow Area= 1.1 sf, Capacity= 1.65 cfs

10.00' x 0.10' deep channel, n= 0.050 Scattered brush, heavy weeds  
 Side Slope Z-value= 10.0 '/' Top Width= 12.00'  
 Length= 89.0' Slope= 0.0618 '/'  
 Inlet Invert= 378.00', Outlet Invert= 372.50'



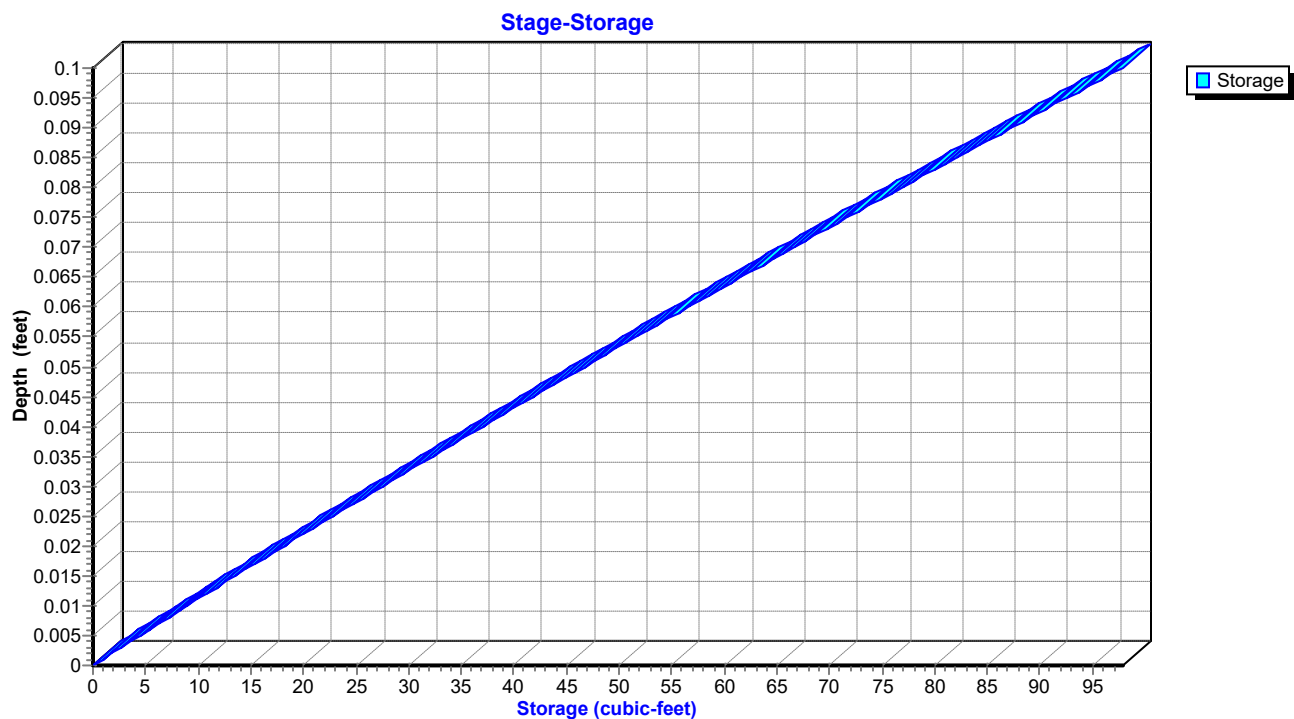
### Reach 11R: REACH 2.1

#### Hydrograph





Reach 11R: REACH 2.1





**Summary for Reach 12R: REACH 2.2**

[62] Hint: Exceeded Reach 11R OUTLET depth by 0.08' @ 12.54 hrs

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 2.94" for 25-year event  
Inflow = 0.06 cfs @ 12.34 hrs, Volume= 0.006 af  
Outflow = 0.05 cfs @ 12.69 hrs, Volume= 0.006 af, Atten= 25%, Lag= 20.9 min  
Routed to Link 7L : DESIGN POINT

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
Max. Velocity= 0.23 fps, Min. Travel Time= 10.4 min  
Avg. Velocity= 0.07 fps, Avg. Travel Time= 33.1 min

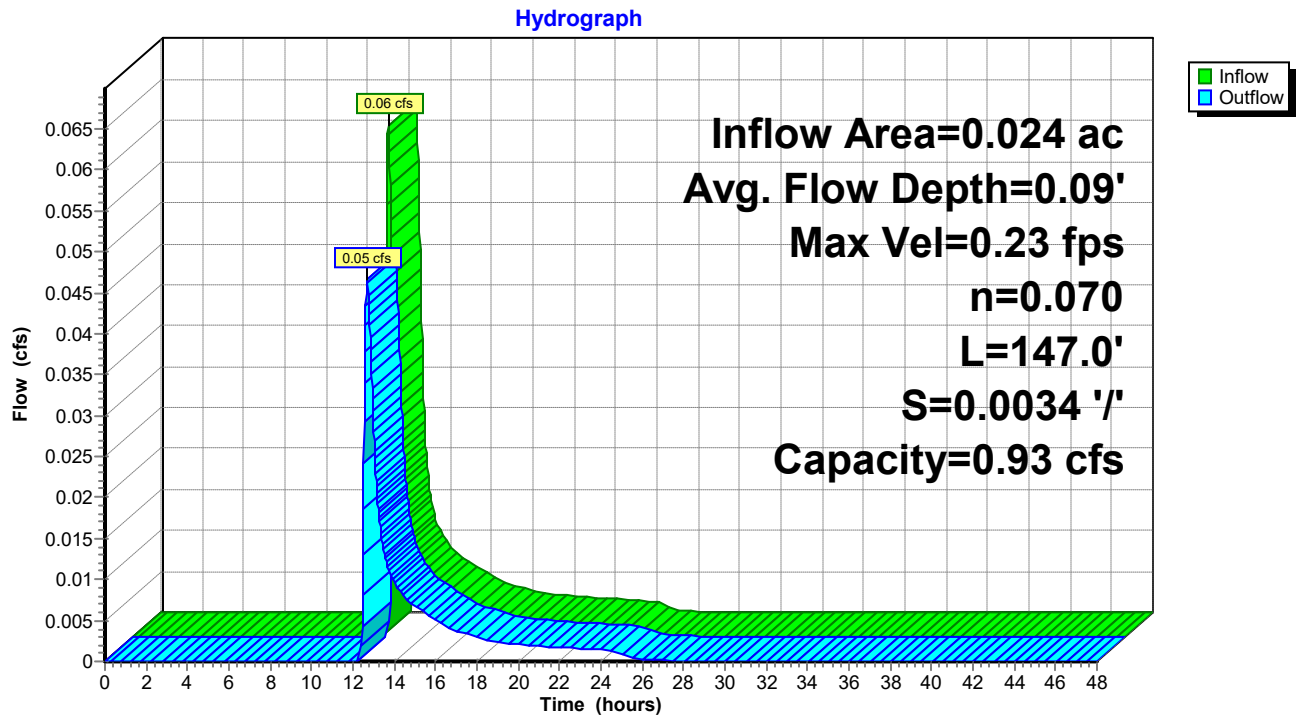
Peak Storage= 29 cf @ 12.52 hrs  
Average Depth at Peak Storage= 0.09', Surface Width= 2.36'  
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 0.93 cfs

2.00' x 0.50' deep channel, n= 0.070  
Side Slope Z-value= 2.0 '/' Top Width= 4.00'  
Length= 147.0' Slope= 0.0034 '/'  
Inlet Invert= 372.50', Outlet Invert= 372.00'

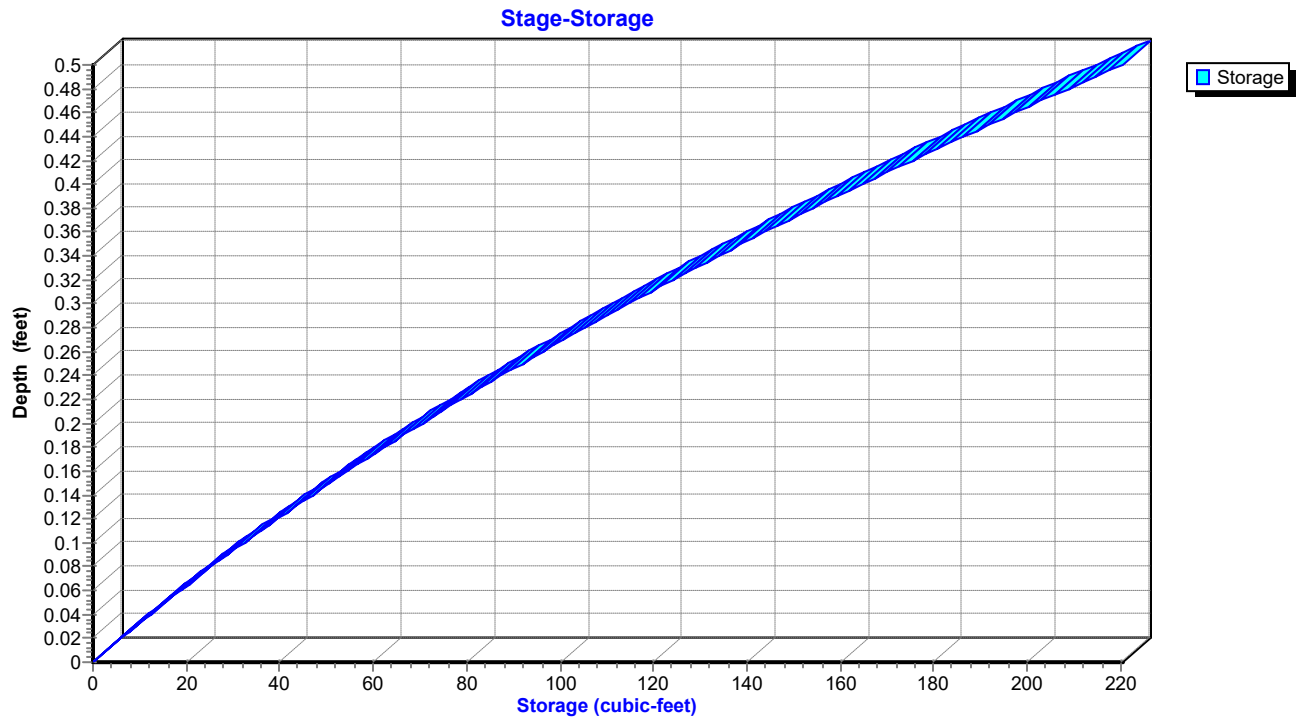




## Reach 12R: REACH 2.2



## Reach 12R: REACH 2.2





### Summary for Pond 5P: BIORET FACILITY

Inflow Area = 0.072 ac, 51.72% Impervious, Inflow Depth = 4.75" for 25-year event  
 Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.028 af  
 Outflow = 0.22 cfs @ 12.20 hrs, Volume= 0.022 af, Atten= 43%, Lag= 7.1 min  
 Primary = 0.22 cfs @ 12.20 hrs, Volume= 0.022 af  
 Routed to Reach 9R : REACH 1.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 382.26' @ 12.20 hrs Surf.Area= 653 sf Storage= 433 cf

Plug-Flow detention time= 140.9 min calculated for 0.022 af (78% of inflow)  
 Center-of-Mass det. time= 61.2 min ( 856.8 - 795.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	381.50'	598 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
381.50	463	0	0
381.75	555	127	127
382.00	603	145	272
382.50	700	326	598

Device	Routing	Invert	Outlet Devices
#1	Primary	382.00'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Primary	382.25'	<b>3.0' long (Profile 7) Broad-Crested Rectangular Weir</b> Head (feet) 0.49 0.98 1.48 Coef. (English) 2.99 3.41 3.62

**Primary OutFlow** Max=0.22 cfs @ 12.20 hrs HW=382.26' (Free Discharge)

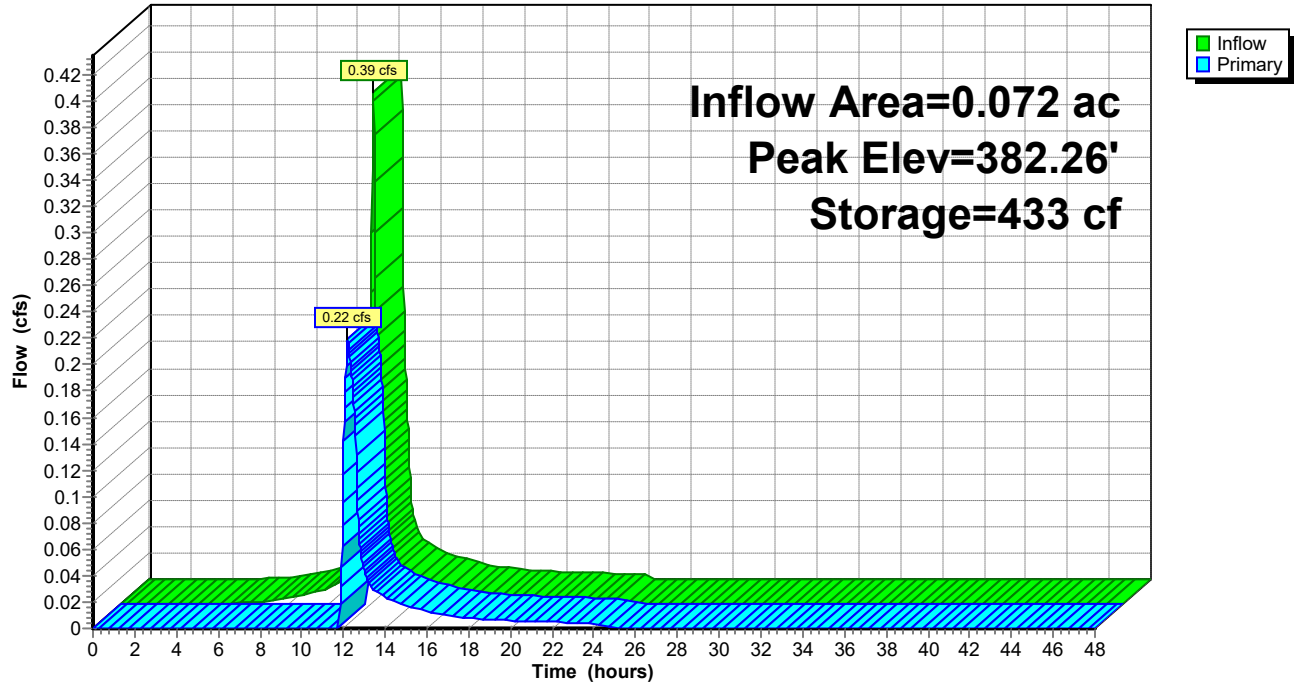
1=Orifice/Grate (Orifice Controls 0.21 cfs @ 2.44 fps)

2=Broad-Crested Rectangular Weir (Weir Controls 0.01 cfs @ 0.25 fps)



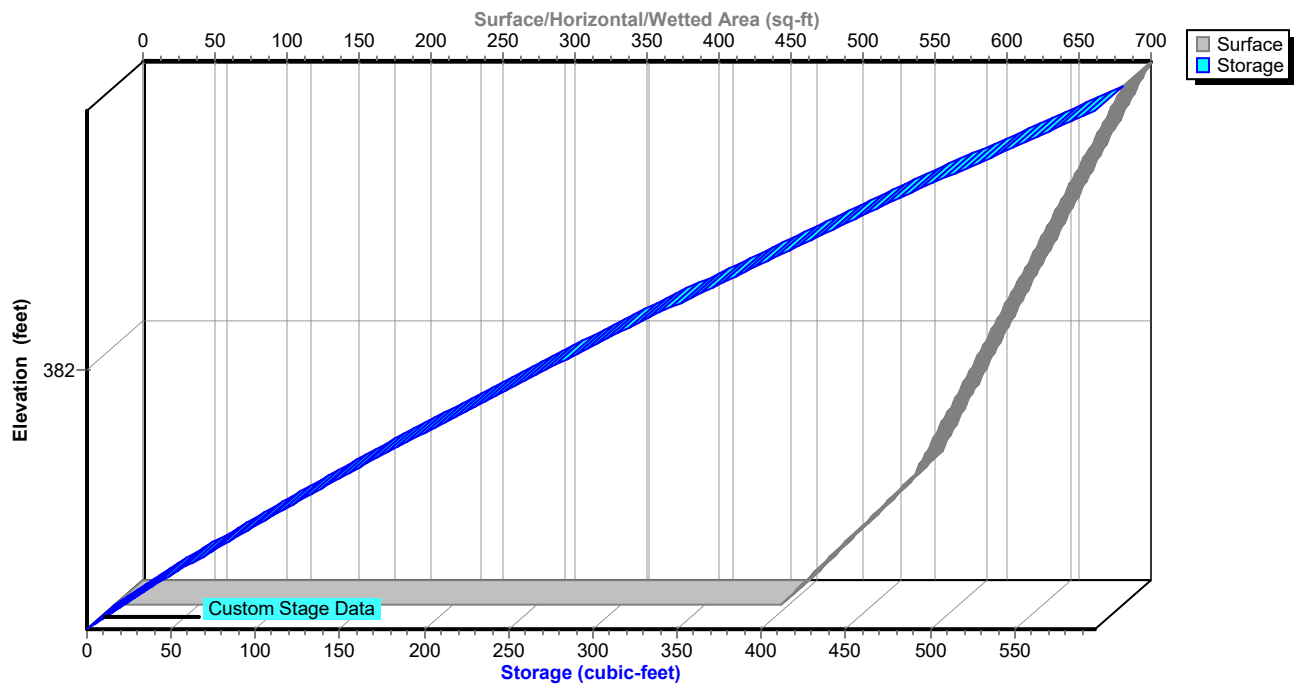
### Pond 5P: BIORET FACILITY

Hydrograph



### Pond 5P: BIORET FACILITY

Stage-Area-Storage





### Summary for Pond 6P: RAIN GARDEN

Inflow Area = 0.024 ac, 49.47% Impervious, Inflow Depth = 4.75" for 25-year event  
 Inflow = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af  
 Outflow = 0.07 cfs @ 12.23 hrs, Volume= 0.006 af, Atten= 48%, Lag= 8.4 min  
 Primary = 0.07 cfs @ 12.23 hrs, Volume= 0.006 af  
 Routed to Reach 11R : REACH 2.1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs  
 Peak Elev= 379.57' @ 12.23 hrs Surf.Area= 362 sf Storage= 182 cf

Plug-Flow detention time= 191.7 min calculated for 0.006 af (62% of inflow)  
 Center-of-Mass det. time= 90.5 min ( 886.2 - 795.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	379.00'	249 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

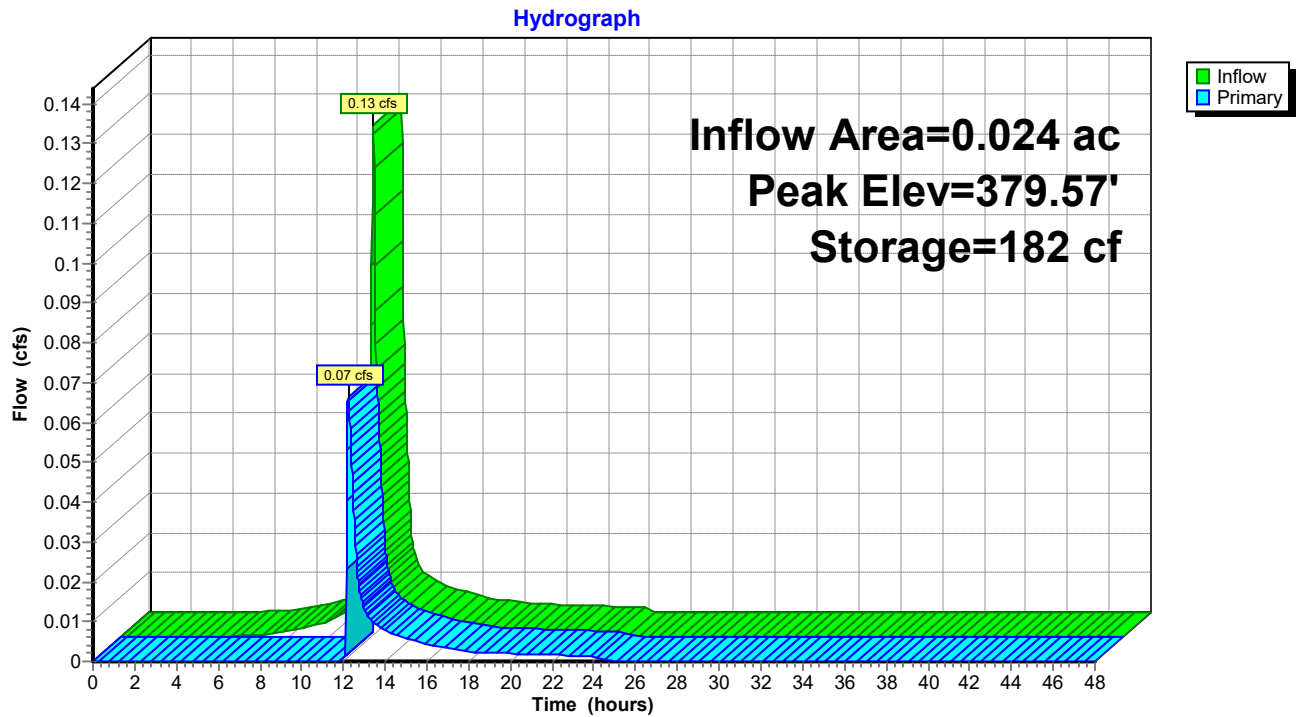
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
379.00	282	0	0
379.25	310	74	74
379.50	346	82	156
379.75	400	93	249

Device	Routing	Invert	Outlet Devices
#1	Primary	379.50'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

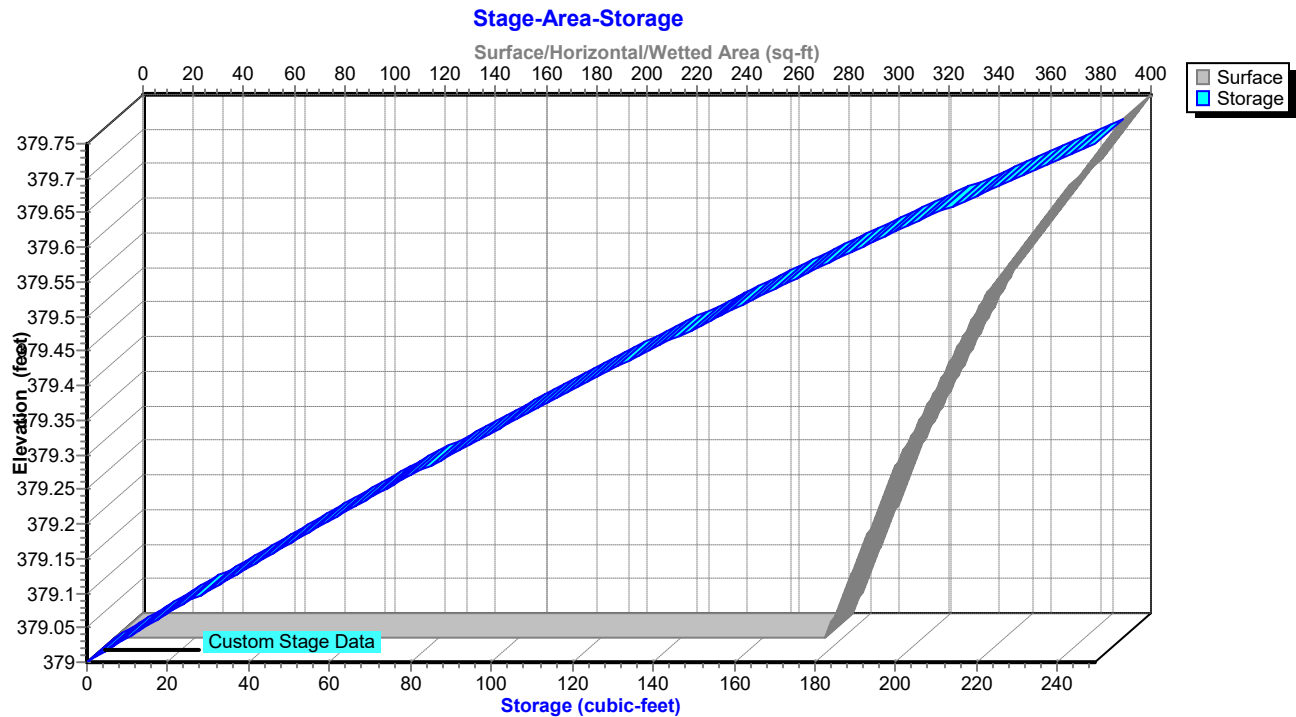
**Primary OutFlow** Max=0.07 cfs @ 12.23 hrs HW=379.57' (Free Discharge)  
 ↑ **1=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.88 fps)



### Pond 6P: RAIN GARDEN



### Pond 6P: RAIN GARDEN

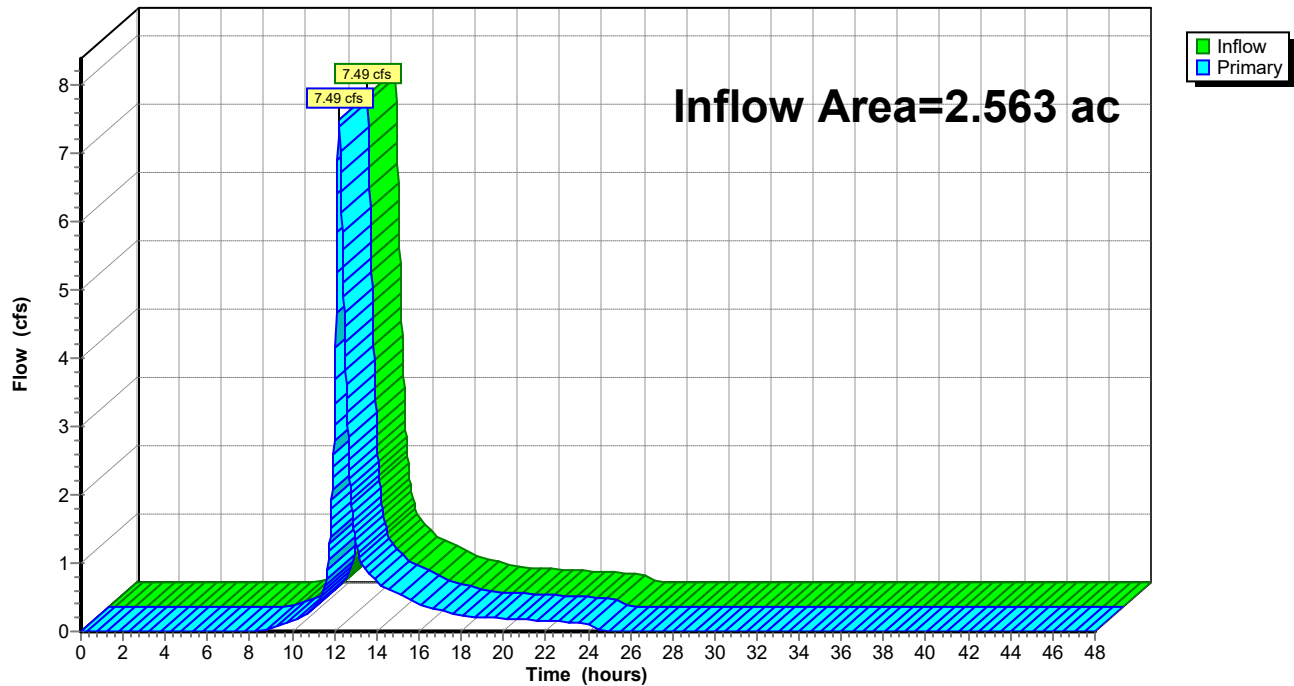




**Summary for Link 7L: DESIGN POINT**

Inflow Area = 2.563 ac, 7.64% Impervious, Inflow Depth = 3.49" for 25-year event  
Inflow = 7.49 cfs @ 12.22 hrs, Volume= 0.746 af  
Primary = 7.49 cfs @ 12.22 hrs, Volume= 0.746 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

**Link 7L: DESIGN POINT****Hydrograph**





Department of  
Environmental  
Conservation

NYS Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505

## MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

**Construction Activities Seeking Authorization Under SPDES General Permit**

\*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

### I. Project Owner/Operator Information

1. Owner/Operator Name: Todd Gardner
2. Contact Person: Todd Gardner
3. Street Address: 23 Waccabuc Road
4. City/State/Zip: Goldens Bridge, NY 10526-1405

### II. Project Site Information

5. Project/Site Name: Gardner Property
6. Street Address: 23 Waccabuc Road
7. City/State/Zip: Goldens Bridge, NY 10526-1405

### III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information

8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:

### IV. Regulated MS4 Information

11. Name of MS4:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Contact Person:
14. Street Address:
15. City/State/Zip:
16. Telephone Number:



## MS4 SWPPP Acceptance Form - continued

### V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

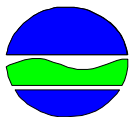
Signature:

Date:

### VI. Additional Information



## NOTICE OF INTENT



**New York State Department of Environmental Conservation**

## Division of Water

**625 Broadway, 4th Floor**

**Albany, New York 12233-3505**

NYR

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(for DEC use only)

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**Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001**

**All sections must be completed unless otherwise noted.** Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

**- IMPORTANT -**

**RETURN THIS FORM TO THE ADDRESS ABOVE**

**OWNER/OPERATOR MUST SIGN FORM**

### Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

[illegible]

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

[illegible]

Owner/Operator Contact Person First Name

[illegible]

Owner/Operator Mailing Address

[illegible]

City

[illegible]

State

--	--

Zip

					-				
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Phone (Owner/Operator)

			-				-			
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Fax (Owner/Operator)

			-				-			
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Email (Owner/Operator)

[illegible][illegible]

FED TAX ID

		-							
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(not required for individuals)



## Project Site Information

Project/Site Name

[illegible]

Street Address (NOT P.O. BOX)

[illegible]

Side of Street

☐ North    ☐ South    ☐ East    ☐ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

[illegible]

State

Zip

County

DEC Region[illegible]

Name of Nearest Cross Street

[illegible]

Distance to Nearest Cross Street (Feet)

--	--	--	--	--

## Project In Relation to Cross Street

☐ North    ☐ South    ☐ East    ☐ West

Tax Map Numbers  
Section-Block-Parcel

## Tax Map Numbers

[illegible][illegible]

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

[www.dec.ny.gov/imsmaps/stormwater/viewer.htm](http://www.dec.ny.gov/imsmaps/stormwater/viewer.htm)

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

--	--	--	--	--	--

Y Coordinates (Northing)

--	--	--	--	--	--	--

2. What is the nature of this construction project?

- New Construction

- Redevelopment with increase in impervious area

- Redevelopment with no increase in impervious area



3. Select the predominant land use for both pre and post development conditions.

**SELECT ONLY ONE CHOICE FOR EACH**

**Pre-Development  
Existing Land Use**

- ☐ FOREST  
☐ PASTURE/OPEN LAND  
☐ CULTIVATED LAND  
☐ SINGLE FAMILY HOME  
☐ SINGLE FAMILY SUBDIVISION  
☐ TOWN HOME RESIDENTIAL  
☐ MULTIFAMILY RESIDENTIAL  
☐ INSTITUTIONAL/SCHOOL  
☐ INDUSTRIAL  
☐ COMMERCIAL  
☐ ROAD/HIGHWAY  
☐ RECREATIONAL/SPORTS FIELD  
☐ BIKE PATH/TRAIL  
☐ LINEAR UTILITY  
☐ PARKING LOT  
☐ OTHER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Post-Development  
Future Land Use**

- ☐ SINGLE FAMILY HOME  
☐ SINGLE FAMILY SUBDIVISION  
☐ TOWN HOME RESIDENTIAL  
☐ MULTIFAMILY RESIDENTIAL  
☐ INSTITUTIONAL/SCHOOL  
☐ INDUSTRIAL  
☐ COMMERCIAL  
☐ MUNICIPAL  
☐ ROAD/HIGHWAY  
☐ RECREATIONAL/SPORTS FIELD  
☐ BIKE PATH/TRAIL  
☐ LINEAR UTILITY (water, sewer, gas, etc.)  
☐ PARKING LOT  
☐ CLEARING/GRADING ONLY  
☐ DEMOLITION, NO REDEVELOPMENT  
☐ WELL DRILLING ACTIVITY \*(Oil, Gas, etc.)  
☐ OTHER

Number of Lots

--	--	--	--

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**\*Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

**Total Site  
Area**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Total Area To  
Be Disturbed**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Existing Impervious  
Area To Be Disturbed**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Future Impervious  
Area Within  
Disturbed Area**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

5. Do you plan to disturb more than 5 acres of soil at any one time? ☐ Yes ☐ No

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

**A**  

--	--	--	--

 %

**B**  

--	--	--	--

 %

**C**  

--	--	--	--

 %

**D**  

--	--	--	--

 %

7. Is this a phased project? ☐ Yes ☐ No

8. Enter the planned start and end dates of the disturbance activities.

**Start Date**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**End Date**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



[illegible]

☐ Wetland / State Jurisdiction On Site (Answer 9b)  
☐ Wetland / State Jurisdiction Off Site  
☐ Wetland / Federal Jurisdiction On Site (Answer 9b)  
☐ Wetland / Federal Jurisdiction Off Site  
☐ Stream / Creek On Site  
☐ Stream / Creek Off Site  
☐ River On Site  
☐ River Off Site  
☐ Lake On Site  
☐ Lake Off Site  
☐ Other Type On Site  
☐ Other Type Off Site

- ☐ Regulatory Map
- ☐ Delineated by Consultant
- ☐ Delineated by Army Corps of Engineers
- ☐ Other (identify)

[illegible][illegible]

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ☐ **Yes** ☐ **No**

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ☐ Yes ☐ No

If Yes, what is the acreage to be disturbed?

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Page 4 of 14



15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ☐ Yes ☐ No ☐ Unknown

- [illegible]

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ☐ **Yes** ☐ **No** ☐ **Unknown**

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ☐ Yes ☐ No

19. Is this property owned by a state authority, state agency, federal government or local government? ☐ Yes ☐ No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ☐ **Yes** ☐ **No**

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ☐ Yes ☐ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ☐ **Yes** ☐ **No**
- If No, skip questions 23 and 27-39.**

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ☐ Yes ☐ No



24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ☐ Professional Engineer (P.E.)
- ☐ Soil and Water Conservation District (SWCD)
- ☐ Registered Landscape Architect (R.L.A.)
- ☐ Certified Professional in Erosion and Sediment Control (CPESC)
- ☐ Owner/Operator
- ☐ Other

[illegible]

SWPPP Preparer

[illegible]

Contact Name (Last, Space, First)

[illegible]

Mailing Address

[illegible]

City

[illegible]

State      Zip

						-				
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Phone

	-		-	
--	---	--	---	--

Fax

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Email

[illegible][illegible]

## SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

[illegible]

MI

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**Last Name**

[illegible]

Signature

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Date \_\_\_\_\_

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25. Has a construction sequence schedule for the planned management practices been prepared? ☐ Yes ☐ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

## Temporary Structural

- ☐ Check Dams
- ☐ Construction Road Stabilization
- ☐ Dust Control
- ☐ Earth Dike
- ☐ Level Spreader
- ☐ Perimeter Dike/Swale
- ☐ Pipe Slope Drain
- ☐ Portable Sediment Tank
- ☐ Rock Dam
- ☐ Sediment Basin
- ☐ Sediment Traps
- ☐ Silt Fence
- ☐ Stabilized Construction Entrance
- ☐ Storm Drain Inlet Protection
- ☐ Straw/Hay Bale Dike
- ☐ Temporary Access Waterway Crossing
- ☐ Temporary Stormdrain Diversion
- ☐ Temporary Swale
- ☐ Turbidity Curtain
- ☐ Water bars

## Biotechnical

- Brush Matting
- Wattling

## Other

[illegible]

## Vegetative Measures

- ☐ Brush Matting
- ☐ Dune Stabilization
- ☐ Grassed Waterway
- ☐ Mulching
- ☐ Protecting Vegetation
- ☐ Recreation Area Improvement
- ☐ Seeding
- ☐ Sodding
- ☐ Straw/Hay Bale Dike
- ☐ Streambank Protection
- ☐ Temporary Swale
- ☐ Topsoiling
- ☐ Vegetating Waterways

## Permanent Structural

- ☐ Debris Basin
- ☐ Diversion
- ☐ Grade Stabilization Structure
- ☐ Land Grading
- ☐ Lined Waterway (Rock)
- ☐ Paved Channel (Concrete)
- ☐ Paved Flume
- ☐ Retaining Wall
- ☐ Riprap Slope Protection
- ☐ Rock Outlet Protection
- ☐ Streambank Protection



**Post-construction Stormwater Management Practice (SMP) Requirements**

**Important:** Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ☐ Preservation of Undisturbed Areas
- ☐ Preservation of Buffers
- ☐ Reduction of Clearing and Grading
- ☐ Locating Development in Less Sensitive Areas
- ☐ Roadway Reduction
- ☐ Sidewalk Reduction
- ☐ Driveway Reduction
- ☐ Cul-de-sac Reduction
- ☐ Building Footprint Reduction
- ☐ Parking Reduction

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ☐ All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ☐ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

**Total WQv Required**

.     acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques (Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required (#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

**Note:** Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.



Table 1 - Runoff Reduction (RR) Techniques  
and Standard Stormwater Management  
Practices (SMPs)

RR Techniques (Area Reduction)	Total Contributing Area (acres)	Total Contributing Impervious Area(acres)
○ Conservation of Natural Areas (RR-1) ...	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2) .....	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
○ Tree Planting/Tree Pit (RR-3) .....	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
○ Disconnection of Rooftop Runoff (RR-4) ..	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<u>RR Techniques (Volume Reduction)</u>		
○ Vegetated Swale (RR-5) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Rain Garden (RR-6) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Stormwater Planter (RR-7) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Rain Barrel/Cistern (RR-8) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Porous Pavement (RR-9) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Green Roof (RR-10) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
<u>Standard SMPs with RRv Capacity</u>		
○ Infiltration Trench (I-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Infiltration Basin (I-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Dry Well (I-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Underground Infiltration System (I-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Bioretention (F-5) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Dry Swale (O-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
<u>Standard SMPs</u>		
○ Micropool Extended Detention (P-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Wet Pond (P-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Wet Extended Detention (P-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Multiple Pond System (P-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Pocket Pond (P-5) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Surface Sand Filter (F-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Underground Sand Filter (F-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Perimeter Sand Filter (F-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Organic Filter (F-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Shallow Wetland (W-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Extended Detention Wetland (W-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Pond/Wetland System (W-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Pocket Wetland (W-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Wet Swale (O-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>



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acre-feet

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acre-feet

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Page 10 of 14



33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

**Note:** Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

- 33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

**WQv Provided**

.  acre-feet

**Note:** For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

.

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ☐ **Yes** ☐ **No**

**If Yes, go to question 36.**

**If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.**

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

**CPv Required**

.  acre-feet

**CPv Provided**

.  acre-feet

- 36a. The need to provide channel protection has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

**Total Overbank Flood Control Criteria (Qp)**

**Pre-Development**

.  CFS

**Post-development**

.  CFS

**Total Extreme Flood Control Criteria (Qf)**

**Pre-Development**

.  CFS

**Post-development**

.  CFS



37a. The need to meet the Qp and Qf criteria has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Downstream analysis reveals that the Qp and Qf controls are not required

- Site discharges directly to tidal waters or a fifth order or larger stream.
- Downstream analysis reveals that the Qp and Qf controls are not required

☐ Yes      ☐ No

If Yes, Identify the entity responsible for the long term  
Operation and Maintenance

[illegible]

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a)  
This space can also be used for other pertinent project information.



40. Identify other DEC permits, existing and new, that are required for this project/facility.

- [illegible]

41. Does this project require a US Army Corps of Engineers Wetland Permit? ☐ ☐ ☐ ☐ ☐ ☐

☐ Yes    ☐ No

Weekend Permit:				
If Yes, Indicate Size of Impact.				.

42. Is this project subject to the requirements of a regulated, traditional land use control MS4?  
(If No, skip question 43)

☐ Yes      ☐ No

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?

☐ Yes    ☐ No

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.



<b>Owner/Operator Certification</b>	
<p>I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.</p>	
<b>Print First Name</b> <div style="border: 1px solid black; height: 30px; width: 100%; position: relative;"> <!-- Empty grid representation --> </div>	<b>MI</b> <div style="border: 1px solid black; height: 30px; width: 100%; position: relative;"> <!-- Empty grid representation --> </div>
<b>Print Last Name</b> <div style="border: 1px solid black; height: 30px; width: 100%; position: relative;"> <!-- Empty grid representation --> </div>	
<b>Owner/Operator Signature</b> <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	
<div style="float: right; text-align: right;"> <b>Date</b>  <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 40px; height: 30px; margin-right: 5px;"></div> <span>/</span> <div style="border: 1px solid black; width: 40px; height: 30px; margin-right: 5px;"></div> <span>/</span> <div style="border: 1px solid black; width: 60px; height: 30px;"></div> </div> </div>	

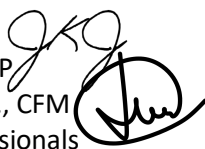
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**MEMORANDUM**

TO: Chairperson Janet Andersen and  
Members of Lewisboro Planning Board

CC: Ciorsdan Conran  
Judson Siebert, Esq.  
Joseph Angiello

FROM: Jan K. Johannessen, AICP   
Joseph M. Cermele, P.E., CFM  
Town Consulting Professionals

DATE: December 16, 2021

RE: Wetland and Stormwater Permit  
Dayton Residence  
62 Mead Street  
Sheet 22, Block 10802, Lot 70

**PROJECT DESCRIPTION**

The subject property consists of ±6.145 acres of land and is located at 62 Mead Street within the R4-A Zoning District. The applicant is proposing to replace the existing pool and to construct a pool terrace, fire pit and ancillary improvements. The applicant is also proposing a mudroom addition, as well as a new detached garage and grotto and driveway reconfiguration. The subject wetland is located off-site and portions of the project are located within the buffer.

**SEQRA**

The proposed action has been preliminarily identified as a Type II Action and is therefore categorically exempt from the State Environmental Quality Review Act (SEQRA).

**REQUIRED APPROVALS**

1. A Wetland Activity Permit and Town Stormwater Permit is required from the Planning Board; a public hearing is required to be held on the Wetland Permit.



2. The subject property is located within the NYC East of Hudson Watershed and proposed land disturbance exceeds 5,000 s.f. Coverage under New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) will be required.

**COMMENTS**

1. While a wetland mitigation area has been identified on the plan, a Planting Plan shall be provided. Please specify the location, specie type, size and quantity of all proposed plantings.
2. As previously requested, please illustrate all applicable zoning setback lines (front, side, rear).
3. As previously requested, please provide architectural floor plans and elevations associated with the mudroom addition.
4. As previously requested, demonstrate that the minimum required Westchester County Department of Health (WCDH) separation distances to the septic system, well, structures, drainage improvements, etc. are maintained.
5. The proposed detached garage and grotto includes a pool room and second floor office spaces with a floor area of greater than 1,000 s.f. The applicant will be required to provide confirmation from the WCHD as to whether modifications to the existing septic system will be required or if a "No Jurisdiction" determination will be issued. This should be coordinated with the Building Department.
6. As previously requested, the plan shall illustrate the proposed sewer, water, and electric utility connections to the new garage/grotto area. Please clarify the location of the existing well.
7. As previously requested, the plan shall illustrate the limits of the proposed pool fence and locations of all gates. The plan shall include construction details and notes demonstrating compliance with all applicable NYS Building Code requirements.
8. Where trees are located in proximity to the limits of disturbance and will be preserved, identify appropriate tree protect measures. Clarify if there will be an island or tree well around the existing cherry tree within the gravel parking area.
9. Please add the site location coordinates to the Notice of Intent (NOI). Please coordinate the soil types and percentages between the NOI and the Stormwater Pollution Prevention Plan (SWPPP), as they differ in designation.



Chairperson Janet Andersen  
December 16, 2021  
Page 3 of 3

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

**PLANS REVIEWED, PREPARED BY INSITE ENGINEERING, DATED NOVEMBER 30, 2021:**

- Overall Plan (Sheet 1 of 4)
- Existing Conditions & Removals Plan (Sheet 2 of 4)
- Grading, Erosion and Sediment Control Plan (Sheet 3 of 4)
- Details (Sheet 4 of 4)

**DOCUMENTS REVIEWED:**

- Letter, prepared by Insite Engineering, dated November 30, 2021
- Stormwater Management Report, prepared by Insite Engineering, dated November 30, 2021
- Topographic Survey of Property, prepared by Insite Engineering
- Draft Notice of Intent
- Dayton Garage Elevations & Landscape Sketch, prepared by TTT Design, dated November 23, 2021

JKJ/dc

[https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16\\_LWPB\\_Dayton - 62 Mead Street\\_Review Memo.docx](https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2021-12-16_LWPB_Dayton - 62 Mead Street_Review Memo.docx)



TO: The Town of Lewisboro Planning Board  
FROM: Lewisboro Conservation Advisory Council  
SUBJECT: Dayton Pool/Patio, 62 Mead Street, Waccabuc, NY 10597  
DATE: December 10, 2021

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The Conservation Advisory Council (CAC) has reviewed the materials submitted by the applicant for the construction a pool, fire pit and pavers. The new construction is within the wetland buffer and also adds 4600 ft of impervious surface area.

The CAC would like to:

- Know if the level spreader could be moved closer to the house and away from the wetland?
- Since the mitigation is seeding of grasses, should this area be clearly marked as a no-mow area?



**TOWN OF LEWISBORO**  
**Westchester County, New York**



**Building Department**  
**79 Bouton Road**  
**South Salem, New York 10590**

**Tel: (914) 763-3060**  
**Fax: (914) 875-9148**  
**Email: [jangiello@lewisborogov.com](mailto:jangiello@lewisborogov.com)**

December 15, 2021

Ms. Janet Andersen, Chair  
Town of Lewisboro Planning Board

Re: Cal#72-21WP, Cal#21-21SW  
Dayton Pool/Patio, 62 Mead St., sheet 0022, block 10802, lot 070

Dear Ms. Andersen and Members of the Board,

I have reviewed the plans from Insite Engineering latest revision dated 11/30/2021, plans from Two Tall Trees dated 11/29/21 as well as the memo from Jan K. Johannessen, AICPI and Joseph M. Cermele, P.E. dated 11/12/21.

I have the following comments:

1. The detached garage plans are not dimensioned, but it appears that the structure will have a floor area above 600 square feet whereas 600 square feet is the maximum permitted per Article IV Section 220-23D(11) of the Town of Lewisboro Zoning Code.
2. The garage elevation does not appear to be drawn to scale. Fully dimensioned plans must be provided to ascertain zoning compliance. The maximum height for an accessory structure is 20' per Article I Section 220-2 of the Town of Lewisboro Zoning Code.

Please do not hesitate to contact me with any questions.

Sincerely,

Joseph Angiello  
Building Inspector





November 30, 2021

Ms. Janet Anderson  
Town of Lewisboro Planning Board  
79 Bouton Road  
South Salem, New York 10590

RE: Dayton Residence  
62 Mead Street  
Town of Lewisboro  
Tax Map # 42.2-1-12

Dear Ms. Anderson:

Enclosed please find four (4) full size, and one (1) electronic copy of the following documents that have been revised in accordance with the Town Consultant's memos and comments from the last Planning Board meeting:

- Site Development Plan Set (4 Sheets), dated November 30, 2021.
- Landscape Plan prepared by Two Tall Trees Design, dated November 29, 2021.
- Letters of Support from Neighbors (3 total).
- Stormwater Management Report by Insite Engineering, Surveying, and Landscape Architecture P.C. dated November 30, 2021.
- Draft NYSDEC Notice of Intent.
- Architectural Floor Plans and Elevations for the New Garage / Grotto Area and Mud Room, prepared by Two Tall Trees Design, dated November 29, 2021.
- Topographic Survey dated November 18, 2021
- Property Deed.

The following are responses to the Kellard Sessions memo dated November 12, 2021, regarding the Wetland and Stormwater Permit for the subject project:

#### **REQUIRED APPROVALS**

1. It is understood that a Wetland Activity Permit and Town Stormwater Permit are required from the Planning Board; and a public hearing may be required on the Wetland Permit. Enclosed please find letters of support from the neighbors. Our team has discussed the project and shown the plans to the neighbors, and there are no objections to the project moving forward.

It is acknowledged that a NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) is required. A Draft Notice of Intent (NOI) is enclosed.

#### **COMMENTS**

1. It is understood that the site plan will be referred to the Building Inspector for zoning compliance. A copy of these plans has been directly sent to the Building Inspector's office for review.



2. The revised plans include a bulk zoning table, and all required minimum zoning setbacks (front, rear, and side yard setbacks). There are no required variances. Any pre-existing non-conformities have been noted on the enclosed plans.
3. As requested, an AutoCAD base map of the existing conditions has been provided.
4. A wetland mitigation plan has been provided. As discussed at the meeting, since most of the wetland buffer disturbance is redevelopment of existing developed areas, a less than 1:1 mitigation ratio has been provided. There are approximately 5,100 square feet of mitigation provided for the 11,100 square foot of wetland buffer disturbance (0.5:1 mitigation ratio provided). All of the proposed disturbance includes previously disturbed areas. Furthermore, the majority of the proposed disturbance is considered redevelopment and redevelopment in kind. The final conditions (lawn, pool, patio, wall etc.) are redeveloped with the same material.
5. The surface material of the existing and proposed driveway is gravel over asphalt, this has been noted on the plan.
6. The plan shows the location of existing utilities (well, water lines, septic system, septic system expansion area, electric, gas, etc.). The minimum required Westchester County Department of Health (WCDOH) separation distances have been provided and are shown on the plan.
7. Architectural floor plans and elevations for the new garage grotto area and mud room have been provided.
8. The location of the pool fence, all gates, and supporting notes and details will be provided on a future submission.
9. The location, size, and type of trees, 8" and greater within limits of disturbance and 25' beyond, including any trees to be removed and/or protected will be shown on a future submission.
10. General Note # 4 has been added stating that disturbance limits shall be staked in the field prior to construction.
11. The location of all proposed roof leader drains, drainage pipes, and discharge locations, as well as pipe sizes and types have been provided on the revised plans.
12. Percolation and deep hole soil testing were prepared in the vicinity of the proposed mitigation system and witnessed by the Town Engineer. A figure has been added to the Stormwater Management Report showing the locations and results of the testing.
13. A draft copy of the NOI has been provided for review.
14. The Stormwater Management Report has been revised to accommodate pool water drawdown (6" minimum) in the infiltration system. The plan has also been revised to show the connection between the pool equipment and the infiltration practice.
15. Enclosed is a copy of the current property deed.
16. The names of adjacent property owners and location of any neighboring driveways, structures, buildings, wells, and septic areas have been provided on the plan.
17. It is understood that the Site Development Plan Application is not required.



The following are responses to the Lewisboro Conservation Advisory Council comments dated November 8, 2021:

1. There is not a reasonable alternative location for the pool that is not in a wetland buffer. Due to the narrow configuration of the lot, and the location of the existing driveway and septic system, the pool location is the only reasonable location. Furthermore, the location of the proposed pool is in the same location as the existing pool.
2. A Stormwater Management Report has been provided.
3. As mentioned above, a Wetland Mitigation Plan has been provided.
4. The water type for the pool is going to be a conventional chlorine pool.
5. The pool is located within a walled courtyard. If the pool is to overflow it will flow to the drains in the courtyard and into the infiltration system. Due to the dilution effect and detention time in the infiltration system, if there is an overflow out of the infiltration system, the chlorine should be fully dissipated at that time.

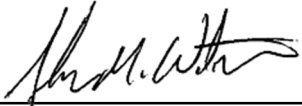
The following are responses to comments made at the last Planning Board meeting:

1. General Note #5 has been added to the plans stating that access must be maintained to the existing septic tank, septic system pump pit, and septic system overflow tank. The proposed improvements around these tanks are lawn, patio, and stepping stone sidewalk areas that can be easily disassembled to access the tanks and then put back after the septic system work is completed.
2. As recommended by the Planning Board Chair, the stormwater collection system within the walled courtyard has been revised so that the stormwater sheet flows into the landscaped garden areas. This will promote incidental infiltration of the stormwater and the landscaped gardens will act similar to a rain garden.

We respectfully request this matter be placed on your December 21, 2021 meeting for discussion. Should you have any questions or concerns feel free to contact this office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By:   
\_\_\_\_\_  
John M. Watson, P.E.  
Senior Principal Engineer

JMW/kmg/amk

Enclosure(s)

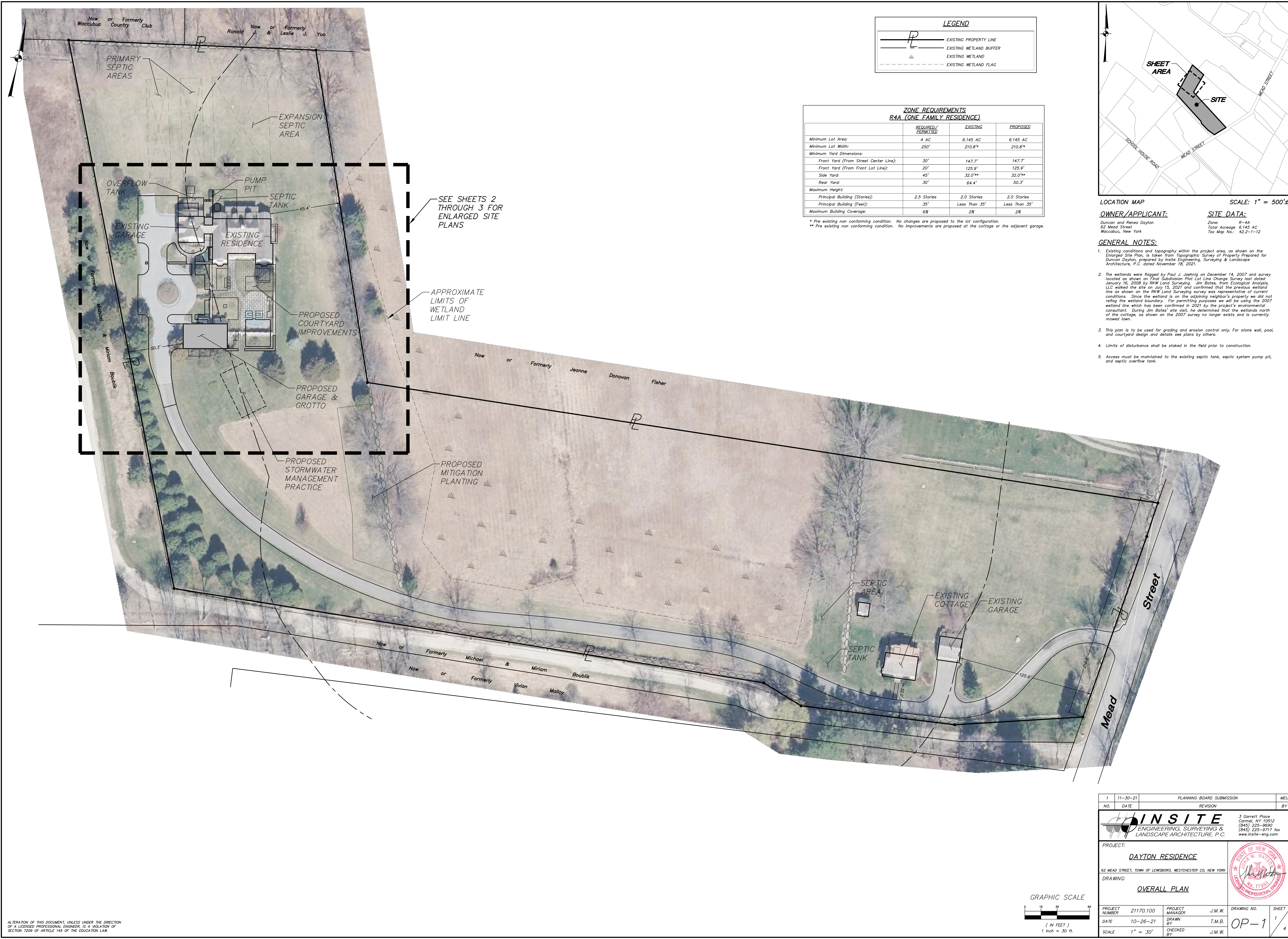
cc: Duncan Dayton

Richard O'Leary, Two Tall Trees Design

Joseph Angiello / Town of Lewisboro Building Inspector

Insite File No. 21170.100



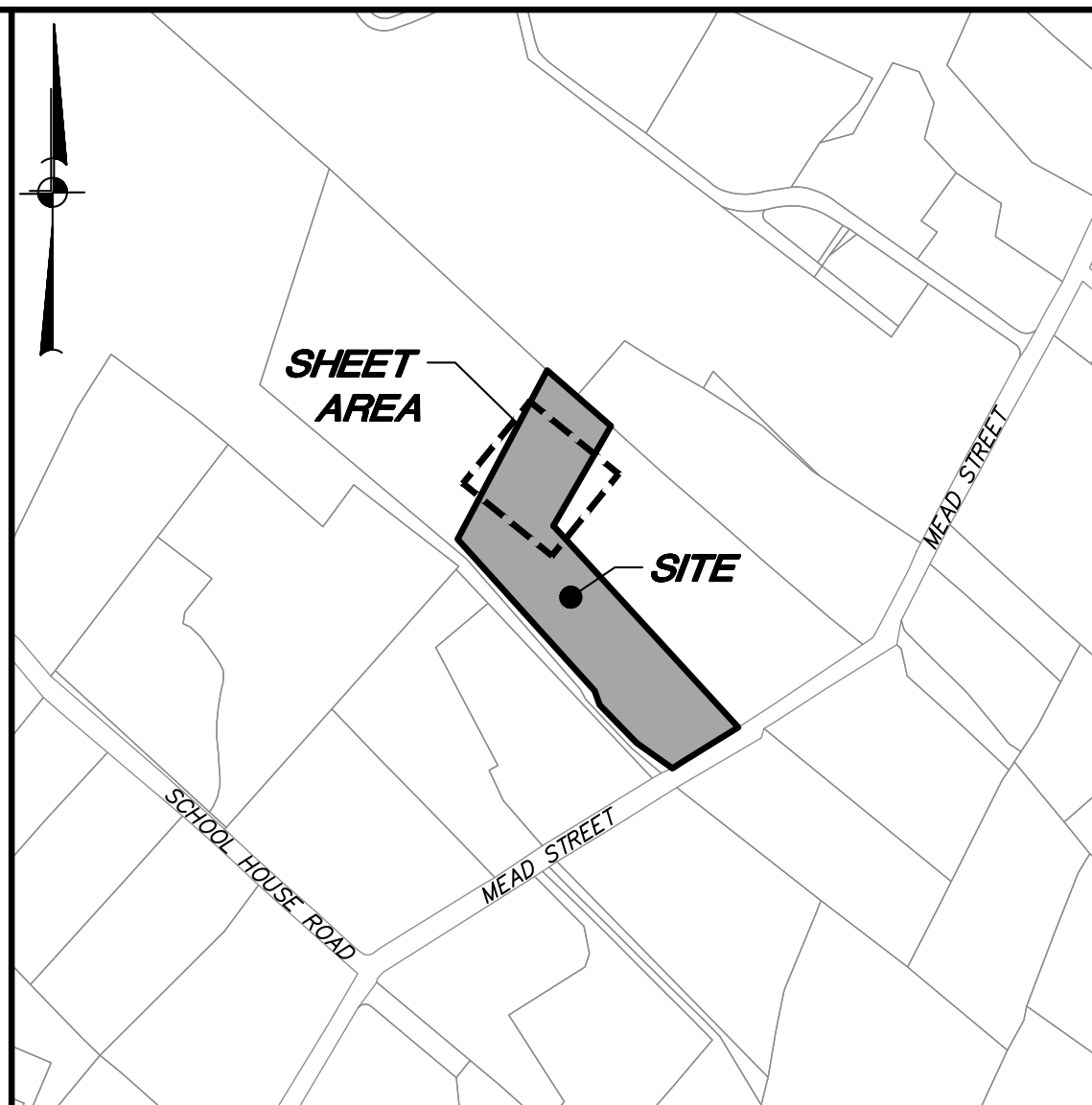


**LEGEND**

— EXISTING PROPERTY LINE  
--- EXISTING WETLAND BUFFER  
--- EXISTING WETLAND  
--- EXISTING WETLAND FLAG

ZONE REQUIREMENTS R4A (ONE FAMILY RESIDENCE)			
	REQUIRED/ PERMITTED	EXISTING	PROPOSED
Minimum Lot Area:	4 AC	6.145 AC	6.145 AC
Minimum Lot Width:	250'	210.8*	210.8*
Minimum Yard Dimensions:			
Front Yard (From Street Center Line):	30'	147.7'	147.7'
Front Yard (From Front Lot Line):	20'	125.9'	125.9'
Side Yard:	45'	32.0**	32.0**
Rear Yard:	30'	64.4'	50.3'
Maximum Height:			
Principal Building (Stories):	2.5 Stories	2.0 Stories	2.0 Stories
Principal Building (Feet):	35'	Less Than 35'	Less Than 35'
Maximum Building Coverage:	6%	2%	2%

\* Pre existing non conforming condition. No changes are proposed to the lot configuration.  
\*\* Pre existing non conforming condition. No improvements are proposed at the cottage or the adjacent garage.

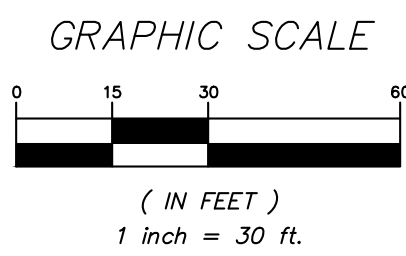


LOCATION MAP SCALE: 1" = 500'±

**OWNER/APPLICANT:** Duncan and Renea Dayton  
62 Mead Street  
Waccabuc, New York

**SITE DATA:**  
Zone: R-4A  
Total Acreage: 6.145 AC  
Tax Map No.: 42.2-1-12

- GENERAL NOTES:**
- Existing conditions and topography within the project area, as shown on the Enlarged Site Plan, is taken from Topographic Survey of Property Prepared for Duncan Dayton, prepared by Insite Engineering, Surveying & Landscape Architecture, P.C. dated November 16, 2021.
  - The wetlands were flagged by Paul J. Joehning on December 14, 2007 and survey located as shown on Final Subdivision Plat Lot Line Change Survey last dated January 16, 2008 by RKW Land Surveying. Jim Bates, from Ecological Analysis, LLC, walked the site on July 15, 2021 and confirmed that the previous wetland line as shown on the RKW Land Surveying survey was representative of current conditions. Since the wetland is on the adjoining neighbor's property we did not reflag the wetland boundary. For permitting purposes we will be using the 2007 wetland line which has been confirmed in 2021 by the project's environmental consultant. During Jim Bates' site visit, he determined that the wetlands north of the cottage, as shown on the 2007 survey no longer exists and is currently mowed lawn.
  - This plan is to be used for grading and erosion control only. For stone wall, pool, and courtyard design and details see plans by others.
  - Limits of disturbance shall be staked in the field prior to construction.
  - Access must be maintained to the existing septic tank, septic system pump pit, and septic overflow tank.



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1	11-30-21	PLANNING BOARD SUBMISSION	MEU
NO.	DATE	REVISION	BY

**INSITE**  
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

3 Garrett Place  
Carmel, NY 10512  
(845) 225-9690  
(845) 225-9717 fax  
www.insite-eng.com

PROJECT: **DAYTON RESIDENCE**

62 MEAD STREET, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING: **OVERALL PLAN**

PROJECT NUMBER	21170.100	PROJECT MANAGER	J.M.W.	DRAWING NO.	SHEET
DATE	10-26-21	DRAWN BY	T.M.B.	OP-1	1
SCALE	1" = 30'	CHECKED BY	J.M.W.		





**LEGEND**

- EXISTING PROPERTY LINE
- EXISTING SETBACK
- EXISTING STONE WALL
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- EXISTING CHAIN LINK FENCE
- EXISTING WETLAND LIMIT LINE
- EXISTING WETLAND BUFFER
- EXISTING WELL
- EXISTING TREE TO BE REMOVED
- EXISTING WETLAND

1	11-30-21	PLANNING BOARD SUBMISSION	MEU
NO.	DATE	REVISION	BY

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PROJECT: **DAYTON RESIDENCE**

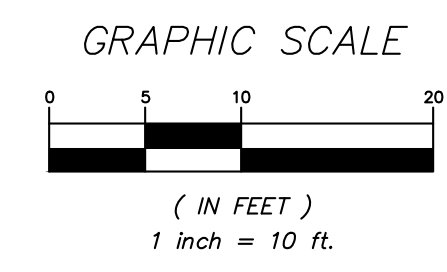
62 MEAD STREET, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING: **EXISTING CONDITIONS & REMOVALS PLAN**

PROJECT NUMBER	21170.100	PROJECT MANAGER	J.M.W.	DRAWING NO.	SHEET
DATE	10-26-21	DRAWN BY	T.M.B.	<b>EX-1</b>	2
SCALE	1" = 10'	CHECKED BY	J.M.W.		

STATE OF NEW YORK  
J.M.W.  
77930  
PROFESSIONAL ENGINEER

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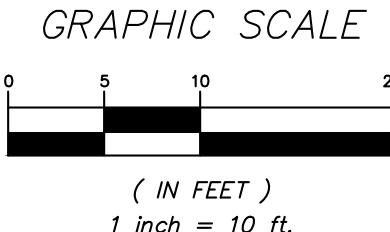
**LEGEND**

- EXISTING PROPERTY LINE
- EXISTING SETBACK
- EXISTING STONE WALL
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- EXISTING CHAIN LINK FENCE
- EXISTING WETLAND LIMIT LINE
- EXISTING WETLAND BUFFER
- EXISTING UNDERGROUND ELECTRIC SERVICE
- EXISTING UNDERGROUND PROPANE SERVICE
- PROPOSED 2' CONTOUR
- PROPOSED RETAINING WALL
- PROPOSED SPOT ELEVATION
- PROPOSED CATCH BASIN
- PROPOSED END SECTION
- PROPOSED DRAINAGE PIPE
- PROPOSED 6" SDR 35 ROOF DRAIN
- PROPOSED SILT FENCE OR STRAW WATTLE
- PROPOSED CONSTRUCTION FENCE
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED TEMPORARY SOIL STOCKPILE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED DRAINAGE STRUCTURE WITH INLET PROTECTION

- CONSTRUCTION NOTES:**
- Minimum OSHA site standards must be maintained including personal protective equipment and vests. The contractor shall be responsible for guarding and protecting all open excavations in accordance with the latest edition and current OSHA requirements.
  - The contractor shall field verify all dimensions relative to the scope of work.
  - The contractor shall field verify the existing grades / utility locations prior to commencement of any work. Any discrepancy shall be reported to the project engineer when identified.
  - Contractor shall be responsible for removal of all excess rock, topsoil, subsoil, and construction debris from the site.
  - The contractor shall place boards/planks to protect lawn from construction access to site. Boards/planks shall be pulled up and stored when not in use.

- CONSTRUCTION SEQUENCE:**
- Install silt fence in general locations indicated on the plan.
  - Strip and stockpile topsoil within limits of disturbance for later use in lawn and landscape areas.
  - Remove section of existing stone wall.
  - Install proposed equipment pads.
  - Install courtyard improvements including stormwater drains with inlet protection.
  - Upon completion of pool and courtyard improvements construct proposed stone wall.
  - Upon completion of all grading operations and pool & wall construction, topsoil, seed, and mulch all remaining disturbed areas as soon as practical in accordance with the Erosion and Sediment Control Notes contained on this page.

- GENERAL SITE SEEDING NOTES:**
- All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
  - Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
    - select seed mixture per drawings and seeding notes.
    - fertilizer applied at the manufacturer's recommended rate using Lesco 10-0-18 (no phosphorous) fertilizer or equivalent.
    - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
    - If the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
  - The seed mixes as specified on these drawings are as follows:
    - A. Seed Mix for lawn areas and mow strip along roads at a rate of 100 lbs. per acre:
      - Kentucky Bluegrass 20%
      - Creeping Red Fescue 40%
      - Perennial Ryegrass 20%
      - Annual Ryegrass 20%
    - B. Seed Mix for Mitigation area as shown on the drawings at a rate of 15 lbs. per acre:
      - Low-Growing Wildflower & Grass Mix (ERNMX-156) from Ernst Conservation Seeds of Meadville, PA or similar.



1	11-30-21	PLANNING BOARD SUBMISSION	MEU
NO.	DATE	REVISION	BY

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PROJECT: **DAYTON RESIDENCE**

62 MEAD STREET, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING: **GRADING, EROSION AND SEDIMENT CONTROL PLAN**

PROJECT NUMBER	21170.100	PROJECT MANAGER	J.M.W.	DRAWING NO.	SHEET
DATE	10-26-21	DRAWN BY	T.M.B.	BY	3
SCALE	1" = 10'	CHECKED BY	J.M.W.	SP-1	4

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



EROSION & SEDIMENT CONTROL NOTES:

- The owner's field representative (O.F.R.) will be responsible for the implementation and maintenance of erosion and sediment control measures on this site prior to and during construction.
- All construction activities involving the removal or disposition of soil are to be provided with appropriate protective measures to minimize erosion and contain sediment disposition within. Minimum erosion and sediment control measures shall be implemented as shown on the plans and shall be installed in accordance with New York Standards and Specifications For Erosion and Sediment Control, latest edition.
- Wherever feasible, natural vegetation should be retained and protected. Disturbance shall be minimized in the areas required to perform construction. No more than 5 acres of unprotected soil shall be exposed at any one time.
- When land is exposed during development, the exposure shall be kept to the shortest practical period of time. In the areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. Disturbance shall be minimized to the areas required to perform construction.
- Silt fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.
- All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded for temporary stabilization. Ryegrass (annual or perennial) at a rate of 30 lbs. per acre shall be used for temporary seeding in spring, summer or early fall. "Antistock" Winter Rye (cereal rye) shall be used for temporary seeding in late fall and winter.
- Any disturbed areas not subject to further disturbance or construction traffic, permanent or temporary, shall have soil stabilization measures initiated for permanent vegetation cover in combination with a suitable mulch within 1 business day of final grading. All seeded areas to receive a minimum 4" topsoil (from stockpile area) and be seeded and mulched as follows:
  - Seed mixture to be planted between March 21 and May 20, or between August 15 and October 15 or as directed by project representative at a rate of 100 pounds per acre in the following proportions:
    - Kentucky Bluegrass 20%
    - Crested Red Fescue 40%
    - Perennial Ryegrass 20%
    - Annual Ryegrass 20%
  - Mulch: Salt Hay or small grain straw applied at a rate of 90 lbs./1000 S.F. or 2 tons/acre, to be applied and anchored according to New York Standards and Specification For Erosion and Sediment Control, latest edition.
- Grass seed mix may be applied by either mechanical or hydroseeding methods. Seeding shall be performed in accordance with the current edition of the NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1". Hydroseeding shall be performed using materials and methods as approved by the site engineer.
- Cut or fill slopes steeper than 3:1 shall be stabilized immediately after grading with Curlex I Single Net Erosion Control Blanket, or approved equal.
- Paved roadways shall be kept clean at all times.
- The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
- All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
- Stormwater from disturbed areas must be passed through erosion control barriers before discharge beyond disturbed areas or discharged into other drainage systems.
- Erosion and sediment control measures shall be inspected and maintained on a daily basis by the O.F.R. to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt fences are intact. Any failure of erosion and sediment control measures shall be immediately repaired by the contractor and inspected for approval by the O.F.R. and/or site engineer.
- Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the O.F.R.
- Cut and fill shall not endanger adjoining property, nor divert water onto the property of others.
- All fills shall be placed and compacted in 6" lifts to provide stability of material and to prevent settlement.
- The O.F.R. shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
- As warranted by field conditions, special additional erosion and sediment control measures, as specified by the site engineer and/or the Town Engineer shall be installed by the contractor.
- Erosion and sediment control measures shall remain in place until all disturbed areas are suitably stabilized.

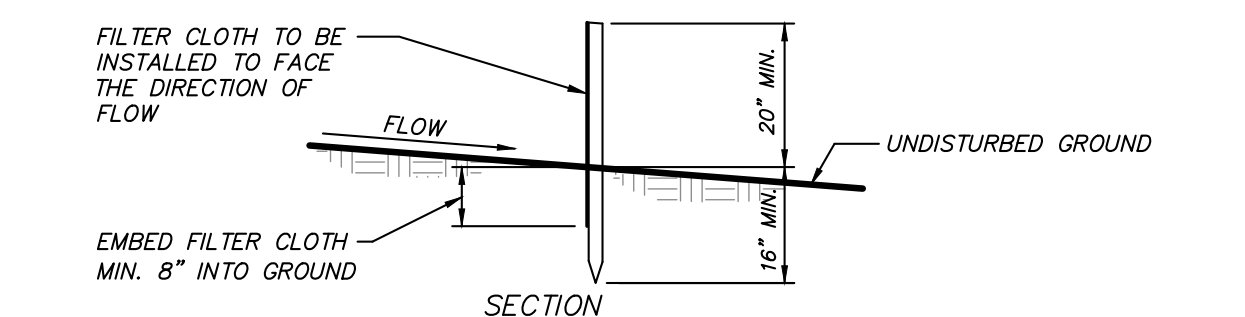
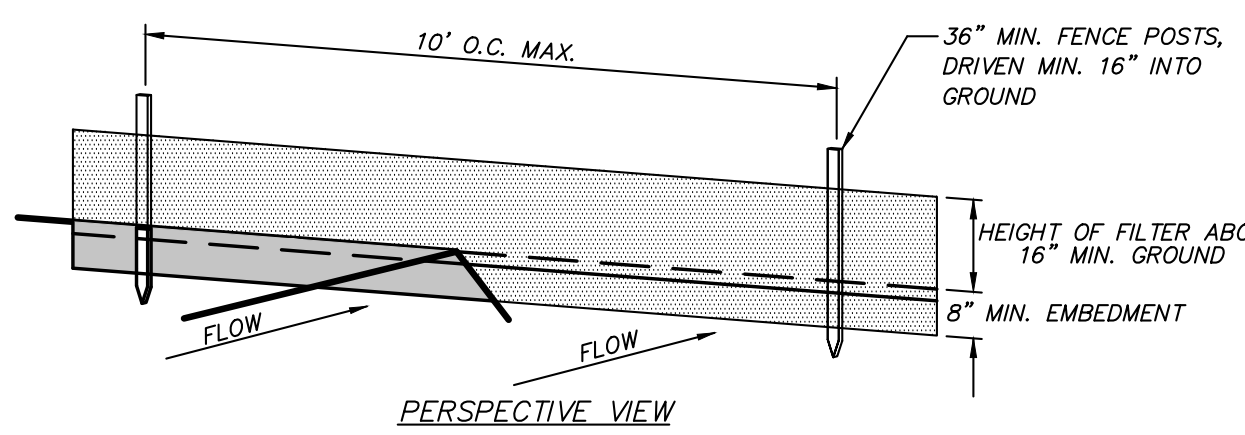
REQUIRED EROSION CONTROL SWPPP CONTENTS:

Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all Stormwater Pollution Prevention Plans (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control". Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1.a-i of General Permit GP-0-20-001:

- Background Information: The subject project consists of the expansion of a contractor's outdoor storage yard.
- Site map / construction drawing: These plans serve to satisfy this SWPPP requirement.
- Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Charlton loam (CNC and CCL), Charlton-Charlton Complex (CCL), Charlton-Charlton Complex (CCL), and Leicester loam (LCL), as identified on the Soil Conservation Service Web Soil Survey. These soil types belong to the Hydrologic Soil Group "B" and "D".
- Construction phasing plan / sequence of operations: The Construction Sequence and phasing found on these plans provide the required phasing. A Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Erosion and Sediment Control Notes contained herein outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as practicable.
- Description of erosion and sediment control practices: This plan, and details / notes shown herein serve to satisfy this SWPPP requirement.
- Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided herein identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.
- Site map / construction drawing: This plan serves to satisfy this SWPPP requirement.
- The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.
- An inspection schedule: Inspections are not required.
- A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.
- A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.
- Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control": All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control".

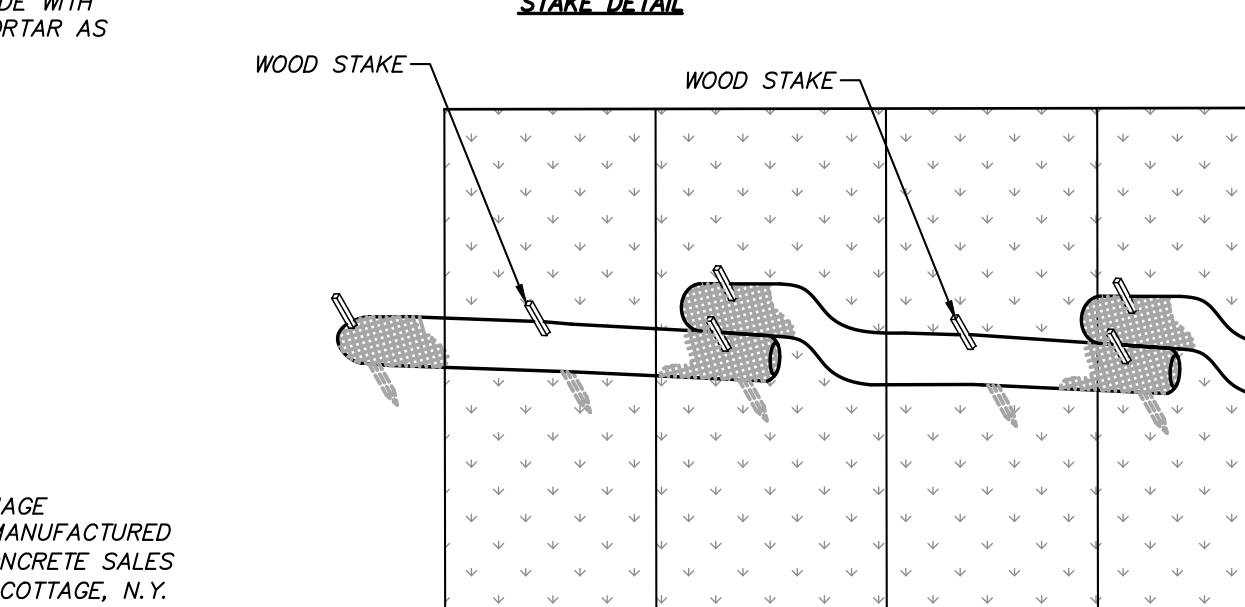
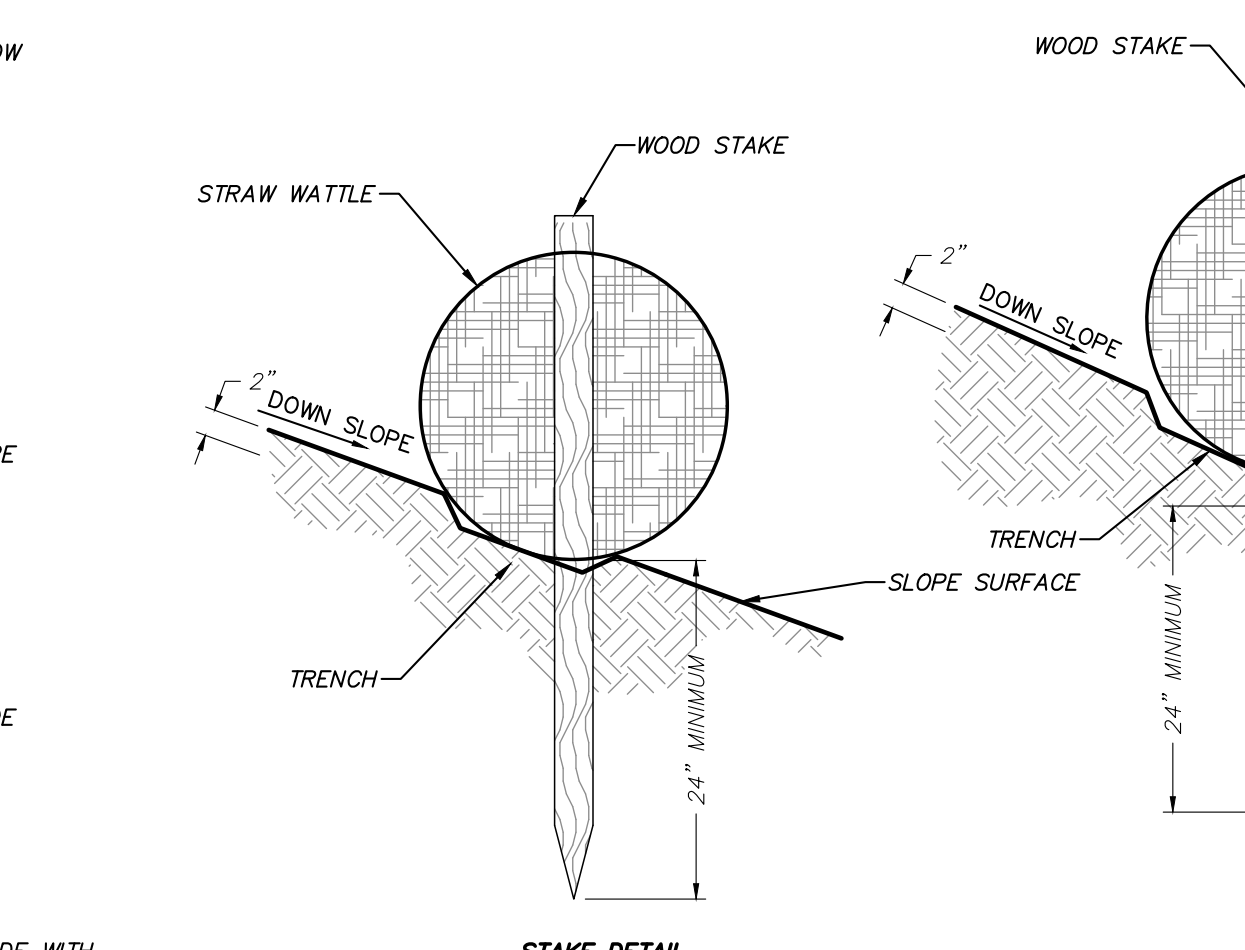
EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE					
MONITORING REQUIREMENTS			MAINTENANCE REQUIREMENTS		
PRACTICE	DAILY	WEEKLY	AFTER RAINFALL	DURING CONSTRUCTION	AFTER CONSTRUCTION
SILT FENCE BARRIER	—	Inspect	Inspect	Clean/Replace	Remove
STABILIZED CONSTRUCTION ENTRANCE	Inspect	—	Inspect	Clean/Replace Stone and Fabric	Remove
DUST CONTROL	Inspect	—	Inspect	Mulching/Spraying Water	N/A
*VEGETATIVE ESTABLISHMENT	—	Inspect	Inspect	Water/Reseed/Remove	Reseed to 80% Coverage
SOIL STOCKPILES	—	Inspect	Inspect	Mulching/Silt Fence Repair	Remove
CONCRETE DRAINAGE STRUCTURES	—	Inspect	Inspect	Clean Sumps/Remove Debris/Repair/Replace	Clean Sumps/Remove Debris/Repair/Replace
DRAINAGE PIPES	—	Inspect	Inspect	Clean/Repair	Clean/Repair
ROAD & PAVEMENT	—	Inspect	Inspect	Clean	Clean

\* Permanent vegetation is considered stabilized when 80% of the plant density is established. Erosion control measures shall remain in place until all disturbed areas are permanently stabilized. Note: The party responsible for implementation of the maintenance schedule during and after construction is: Duncan and Renee Dayton 62 Mead Street Waccabuc, New York and/or the current owner(s) of the subject property.



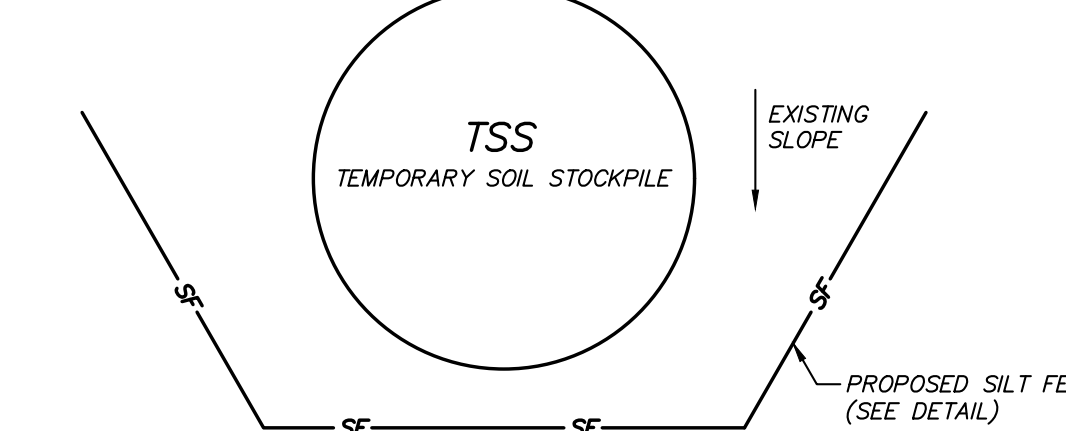
- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE
- FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD  
FILTER CLOTH: FILTER X MIRAFI 140N, STABILINKA T140N, OR APPROVED EQUAL  
PREFABRICATED UNIT: GEOTAB, ENVROFENCE, OR APPROVED EQUAL

SILT FENCE DETAIL (N.T.S.)



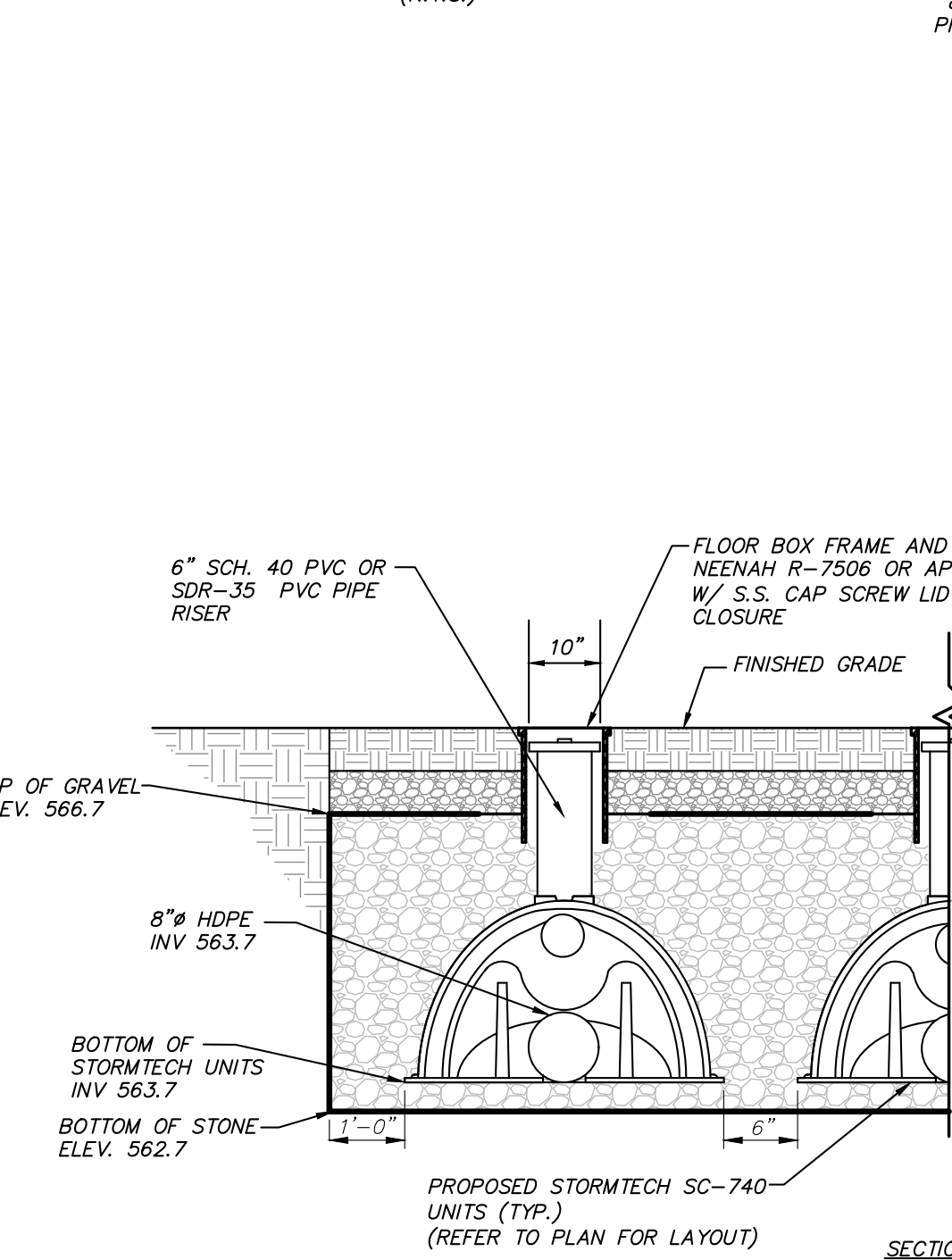
- NOTES:
- 1 1/2" x 1 1/2" x 30" WOODEN STAKES FOR 9" AND 12" STRAW WATTLES.
  - 1 1/2" x 1 1/2" x 48" WOODEN STAKES FOR 20" STRAW WATTLES.

STRAW WATTLE DETAIL (N.T.S.)



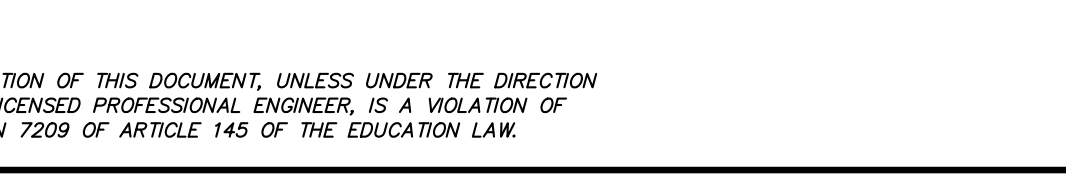
- NOTES:
- AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
  - MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
  - UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDING WITH K31 PERENNIAL TALL FESCUE.
  - ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT SIDE.

TEMPORARY SOIL STOCKPILE DETAIL (N.T.S.)

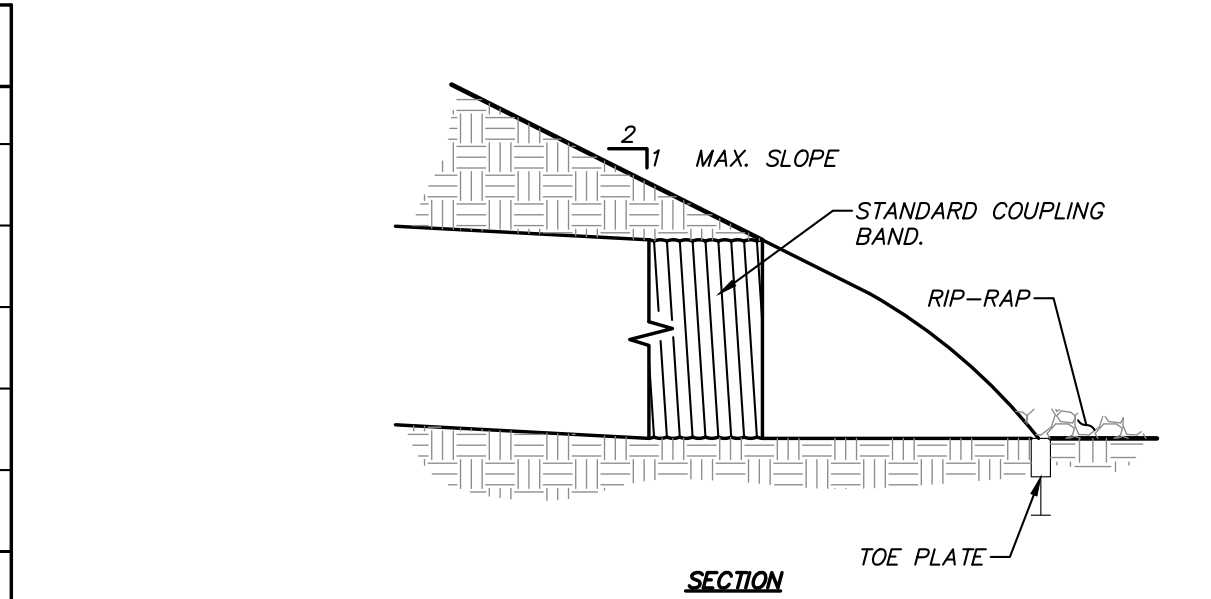


FLOW SPLITTER FS 2 DETAIL (N.T.S.)

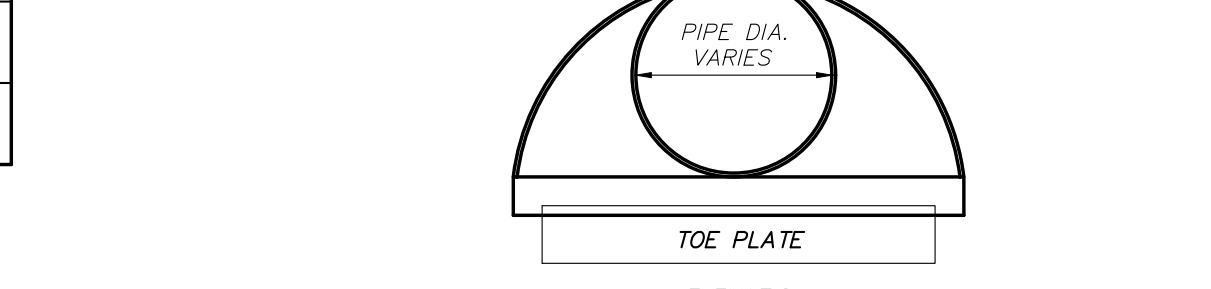
STORMWATER UNDERGROUND INFILTRATION SYSTEM (SMP 1.1P) DETAIL (N.T.S.)



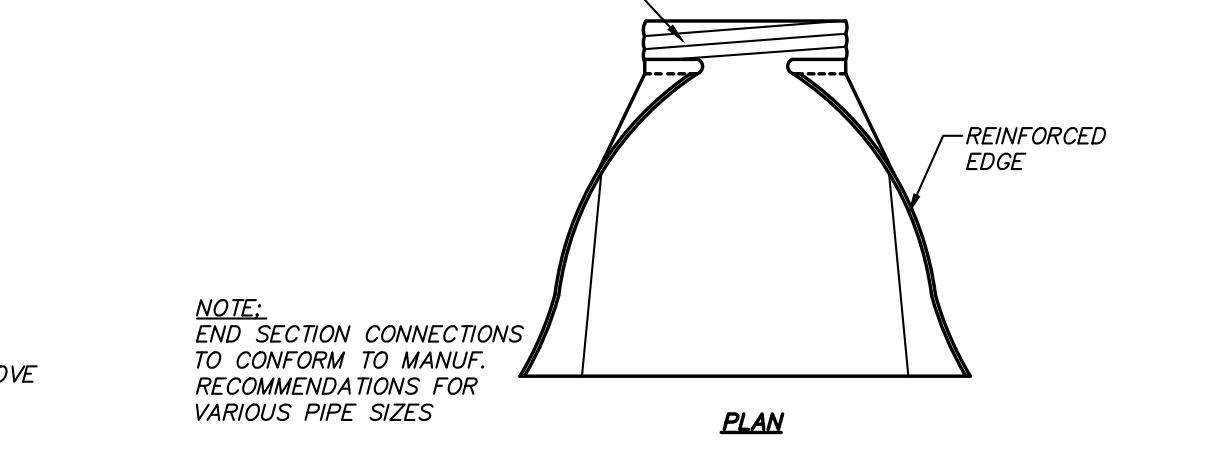
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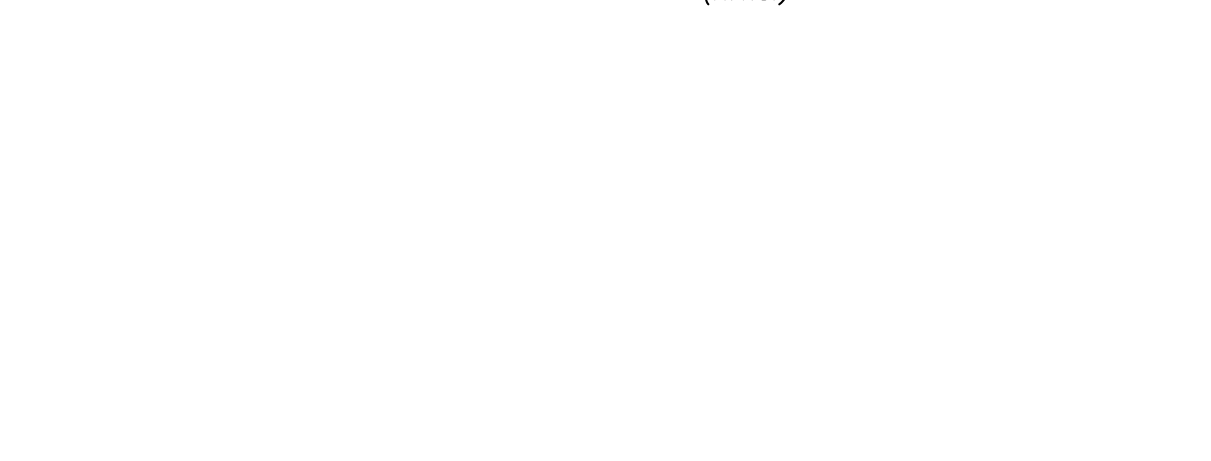
CONCRETE PAD DETAIL (N.T.S.)



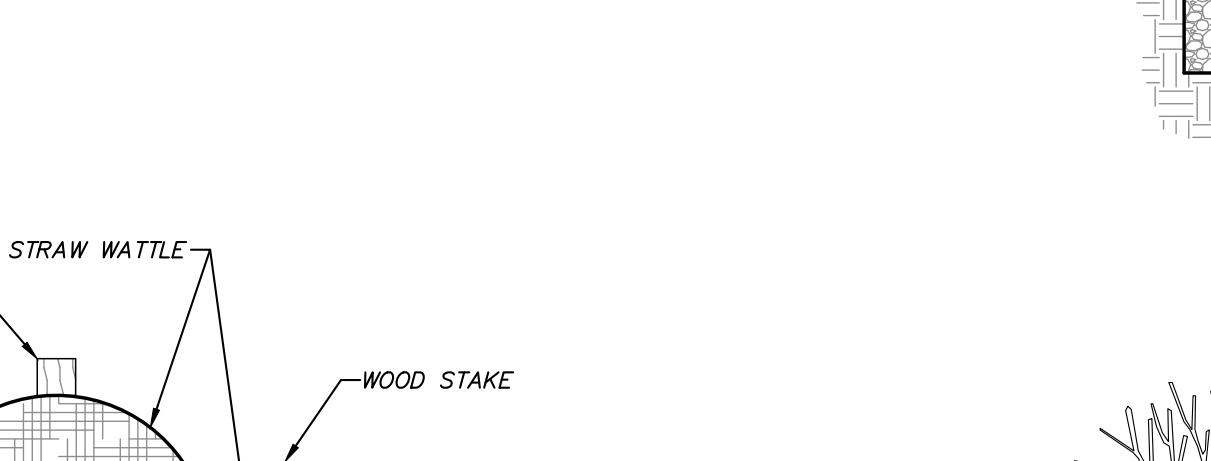
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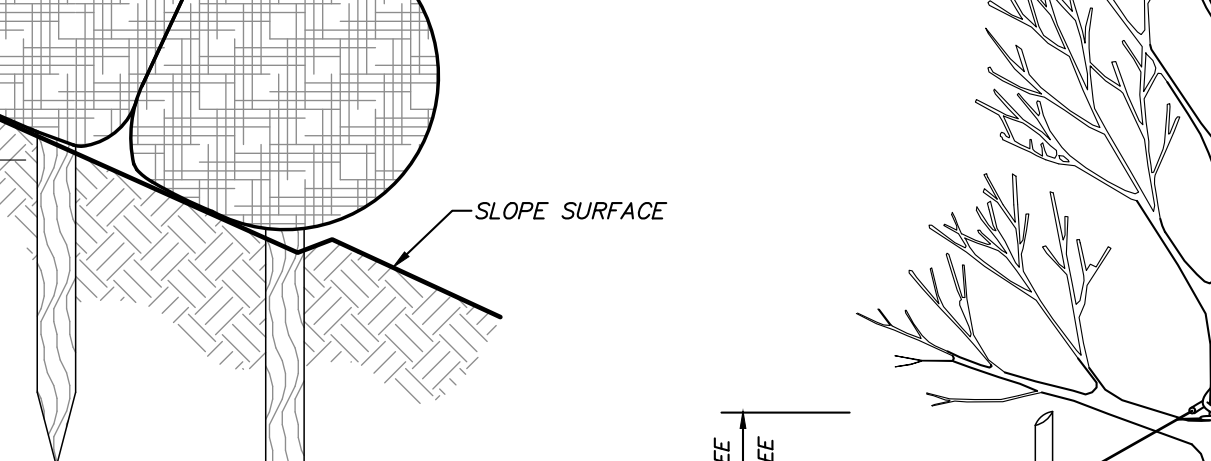
GRAVEL ACCESS DRIVE DETAIL (N.T.S.)



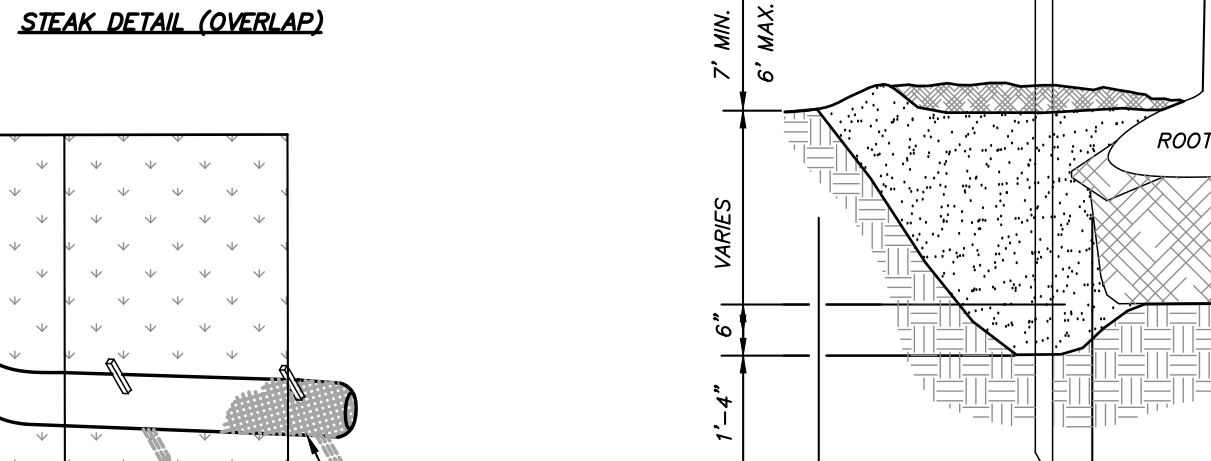
GRAVEL ACCESS DRIVE DETAIL (N.T.S.)



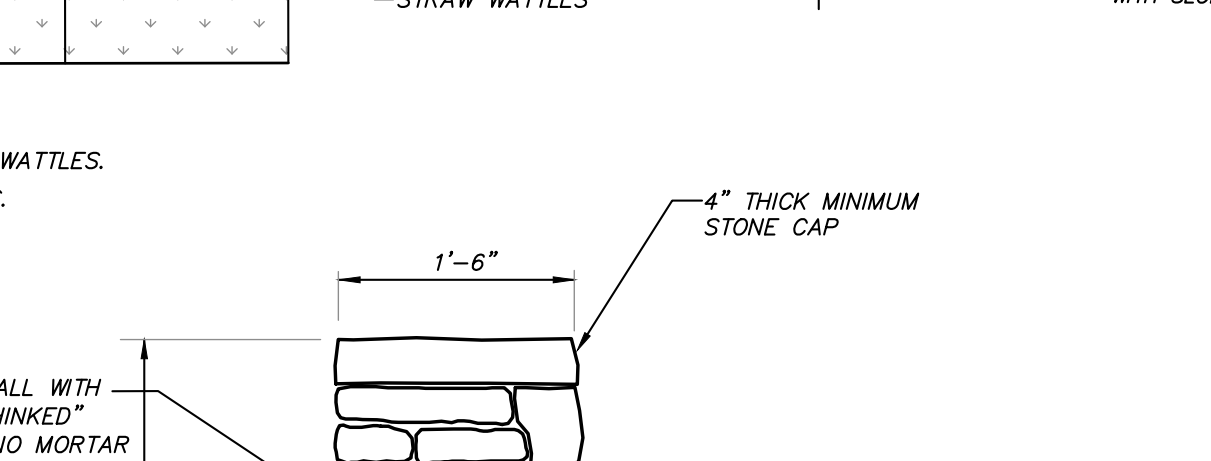
TREE PLANTING DETAIL (N.T.S.)



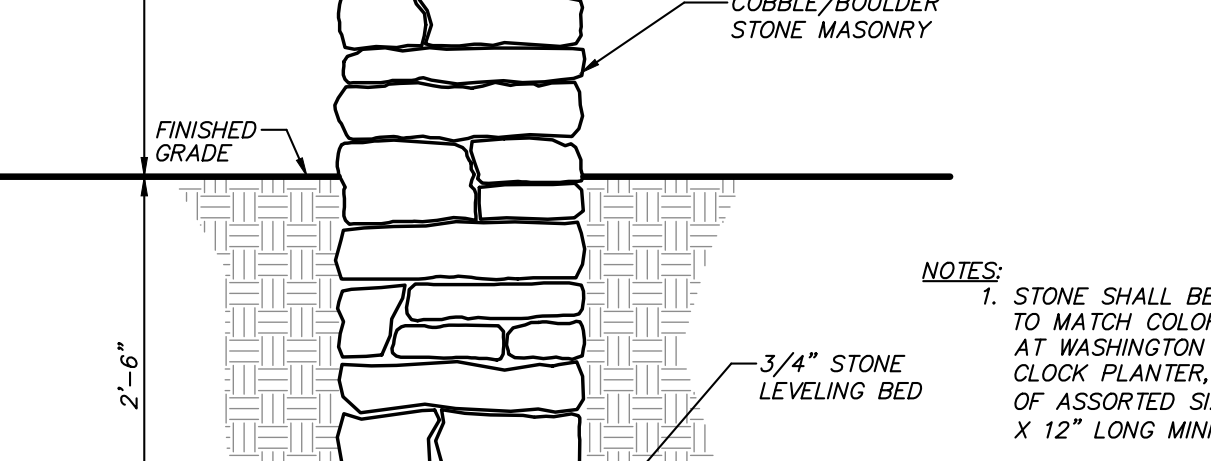
TREE PLANTING DETAIL (N.T.S.)



TREE PLANTING DETAIL (N.T.S.)

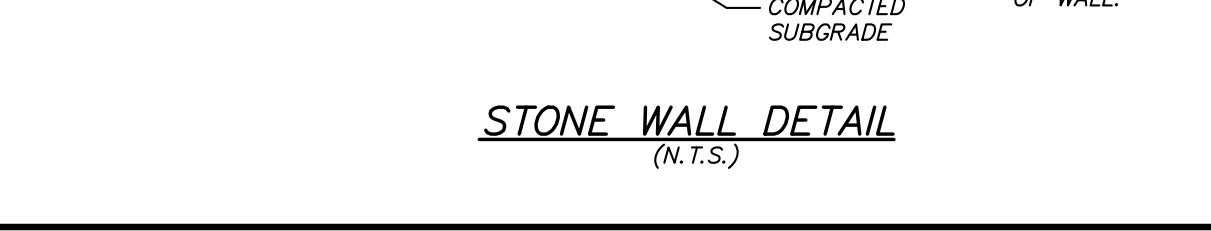


TREE PLANTING DETAIL (N.T.S.)

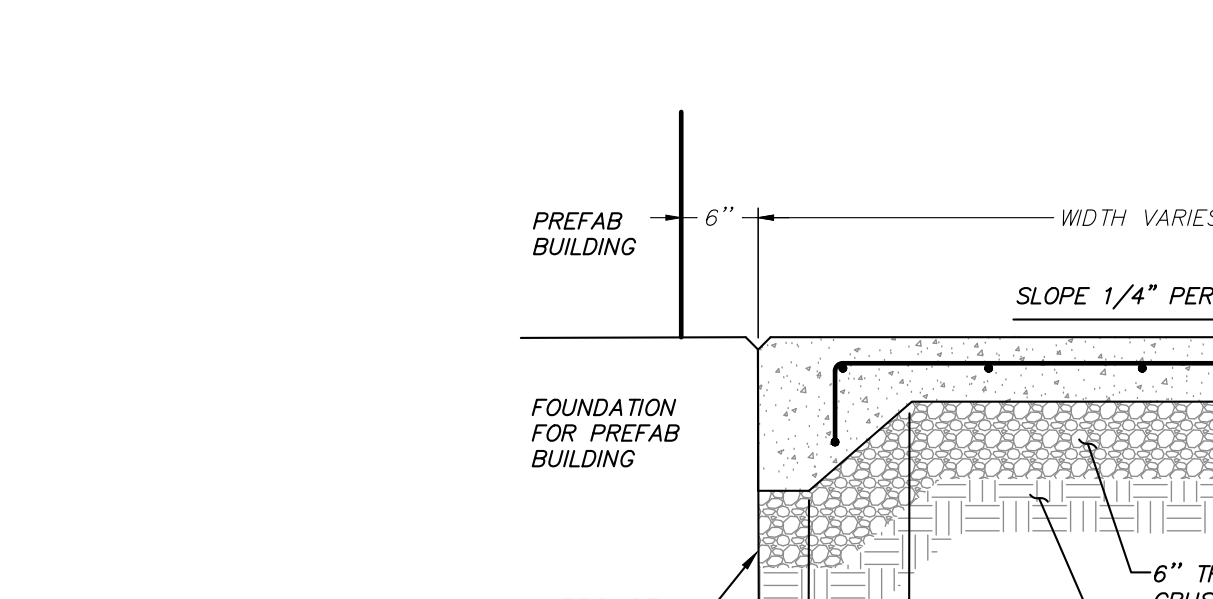


TREE PLANTING DETAIL (N.T.S.)

STONE WALL DETAIL (N.T.S.)



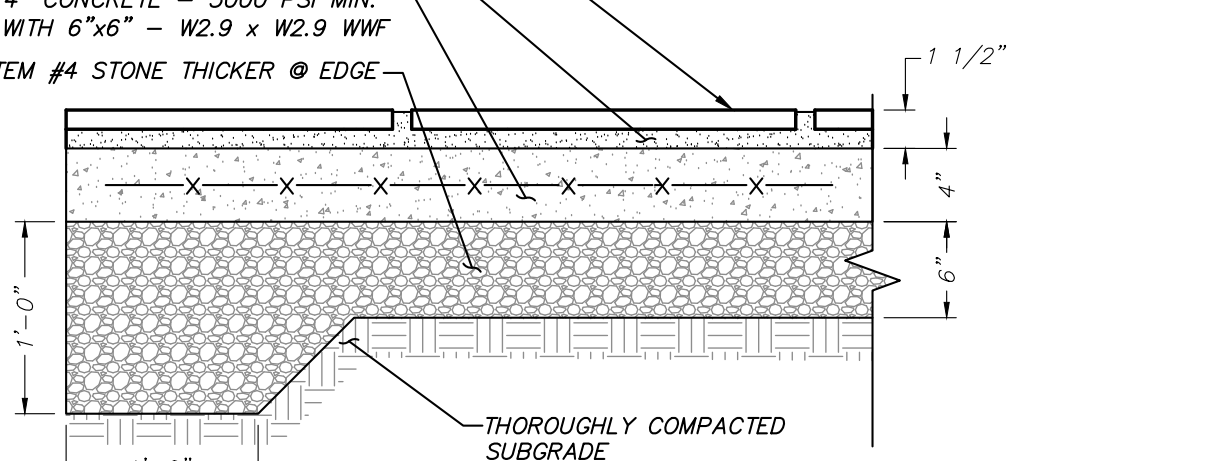
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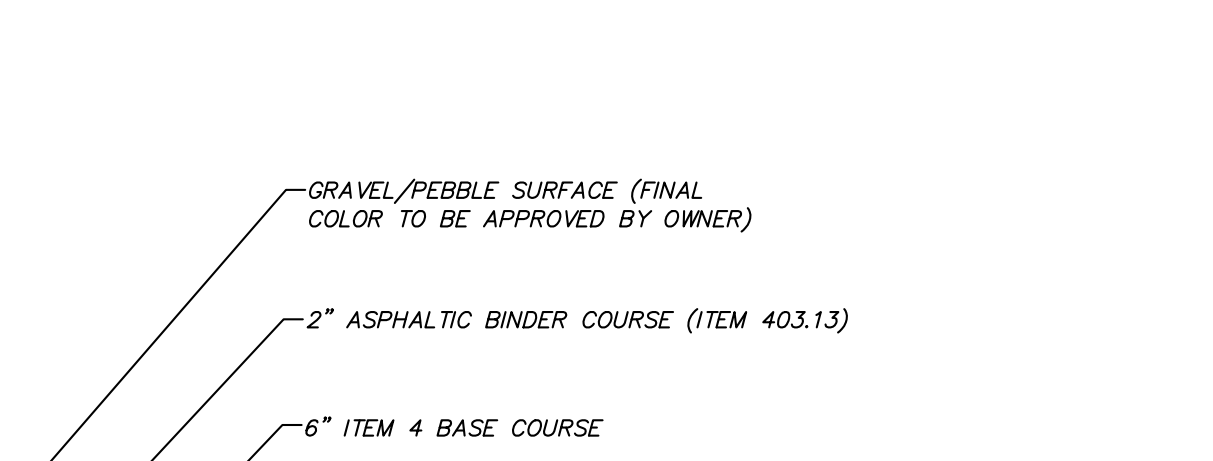
CONCRETE PAD DETAIL (N.T.S.)



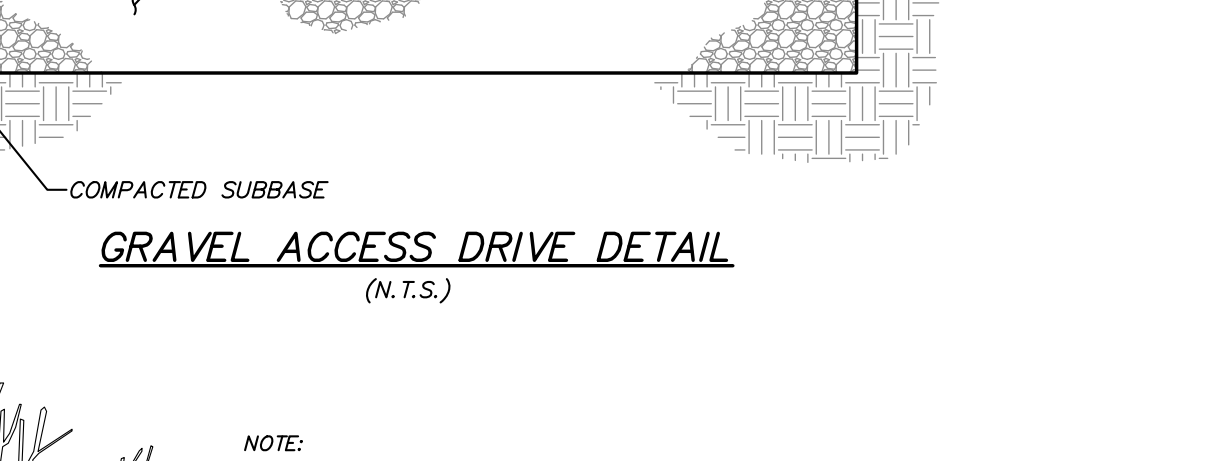
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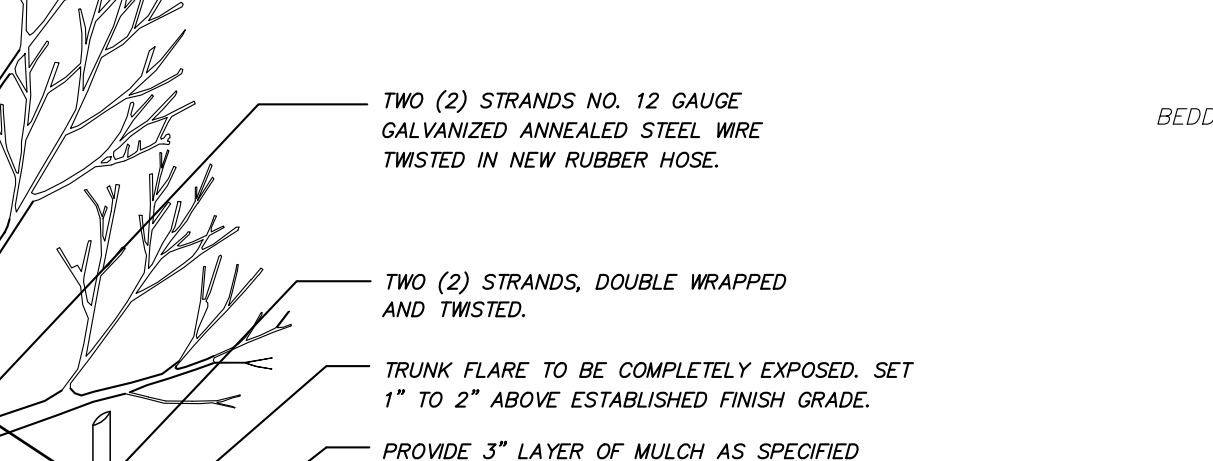
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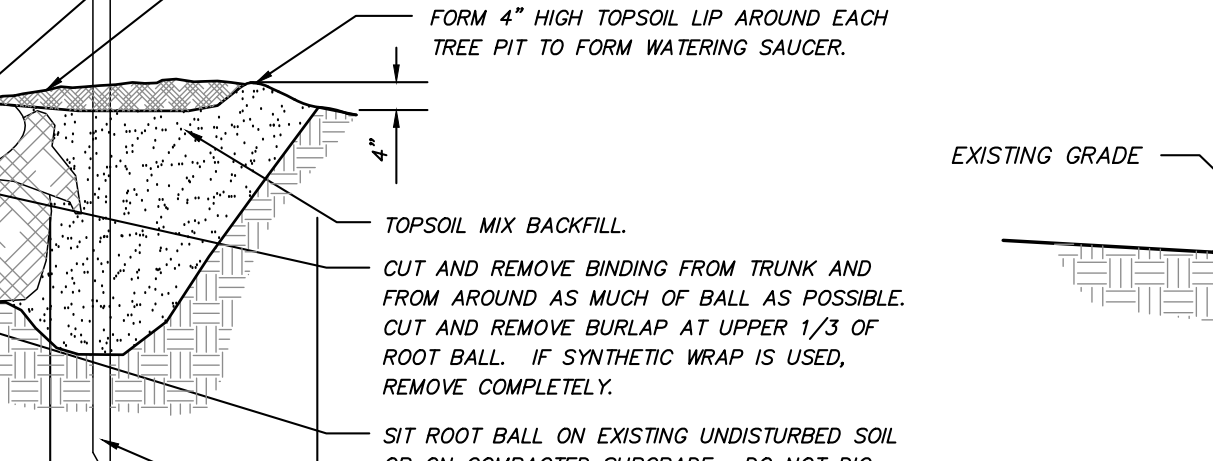
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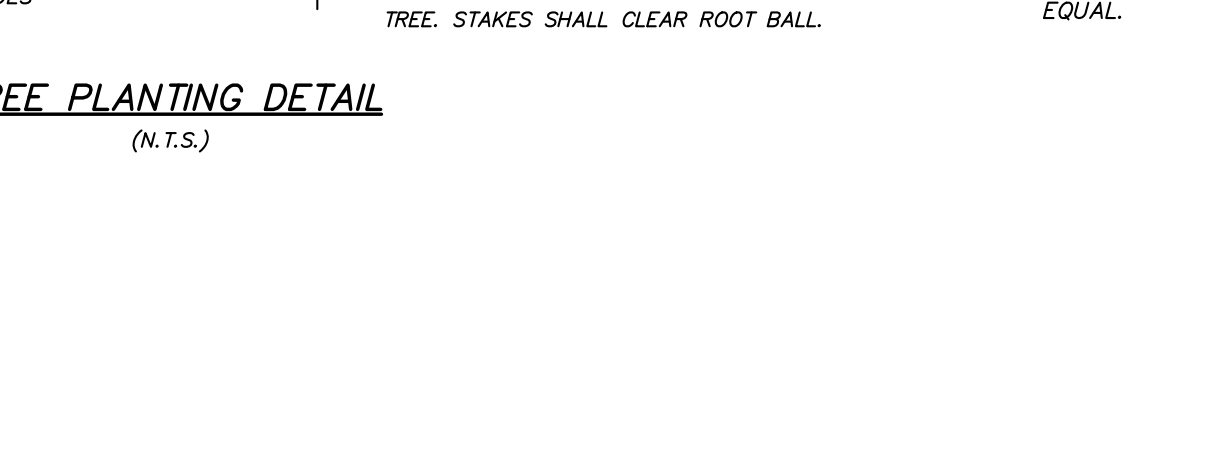
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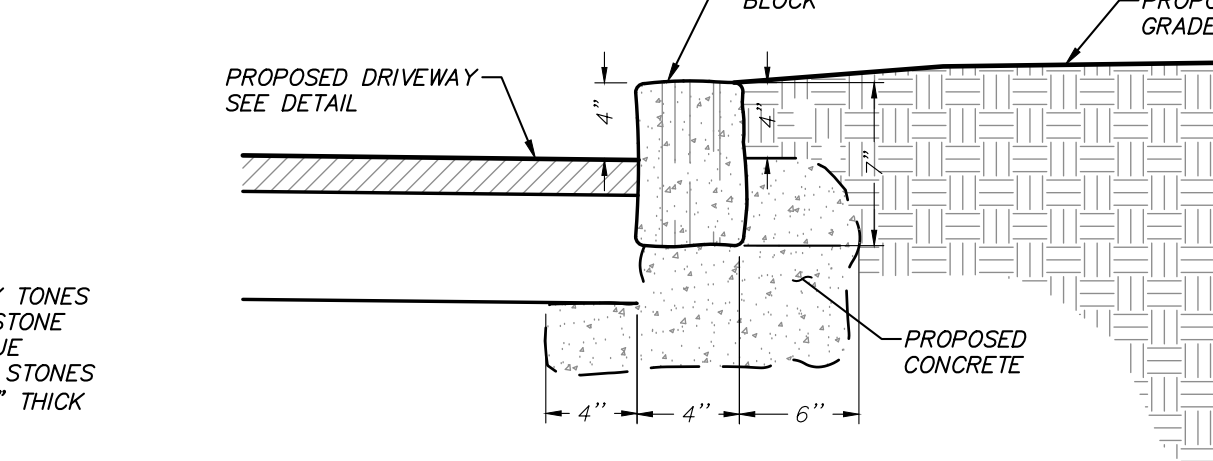
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TREE PLANTING DETAIL (N.T.S.)



TREE PLANTING DETAIL (N.T.S.)

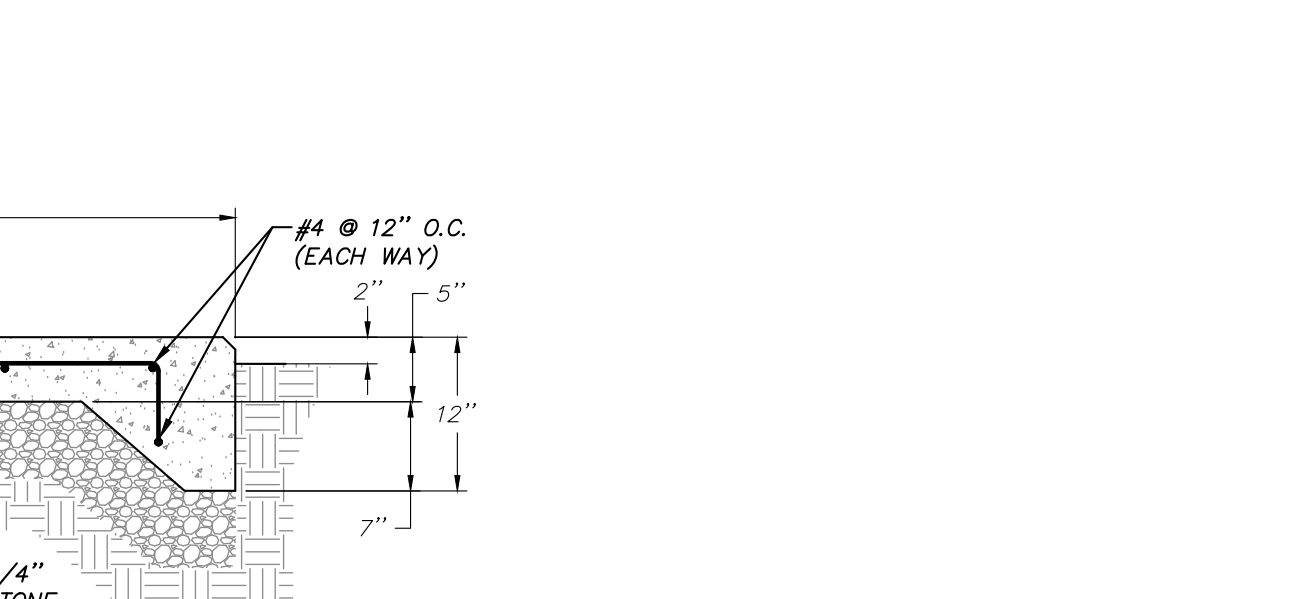


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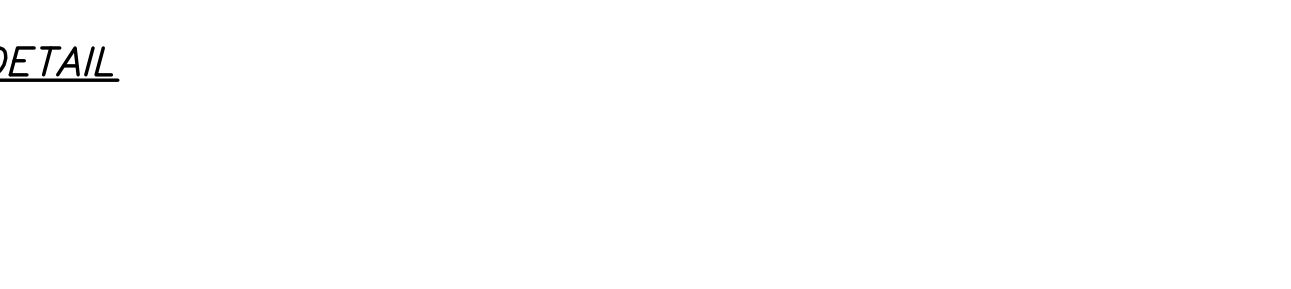
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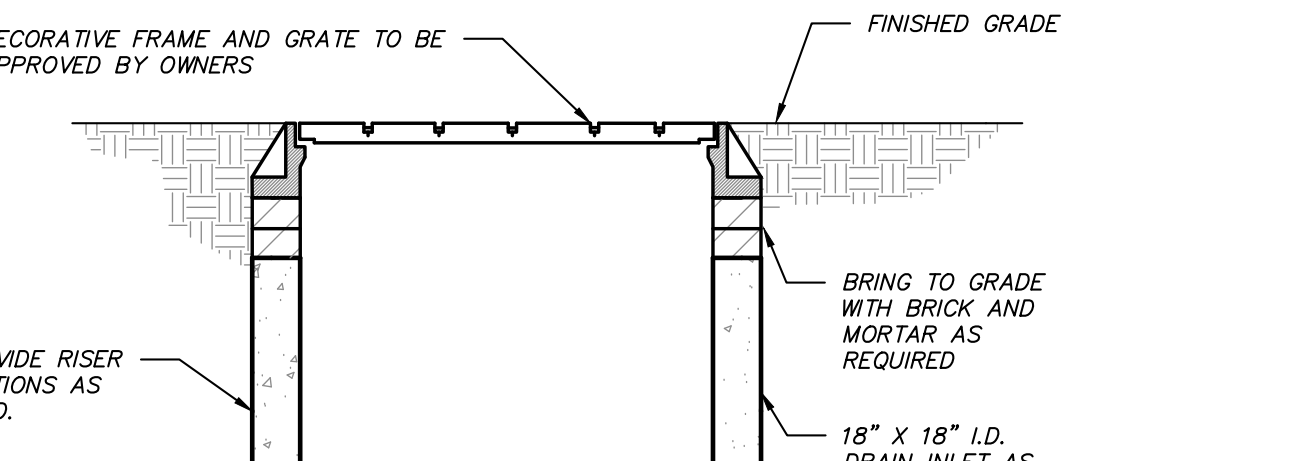
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



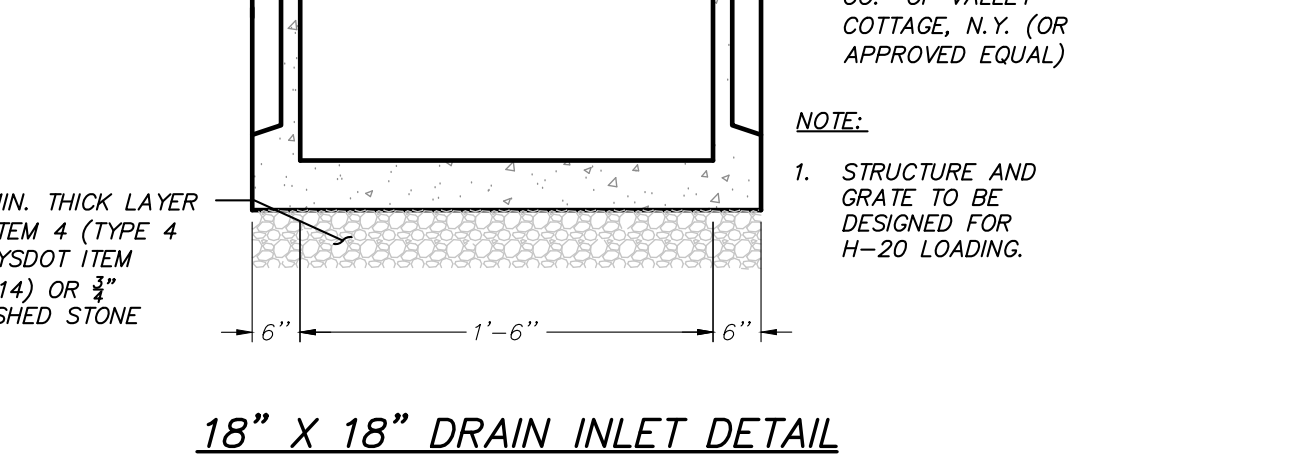
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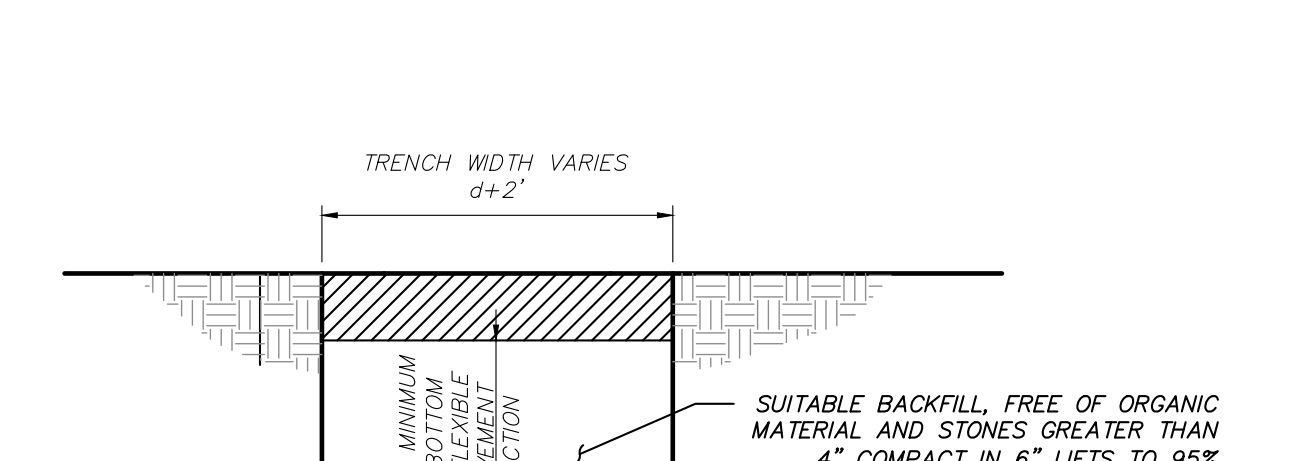
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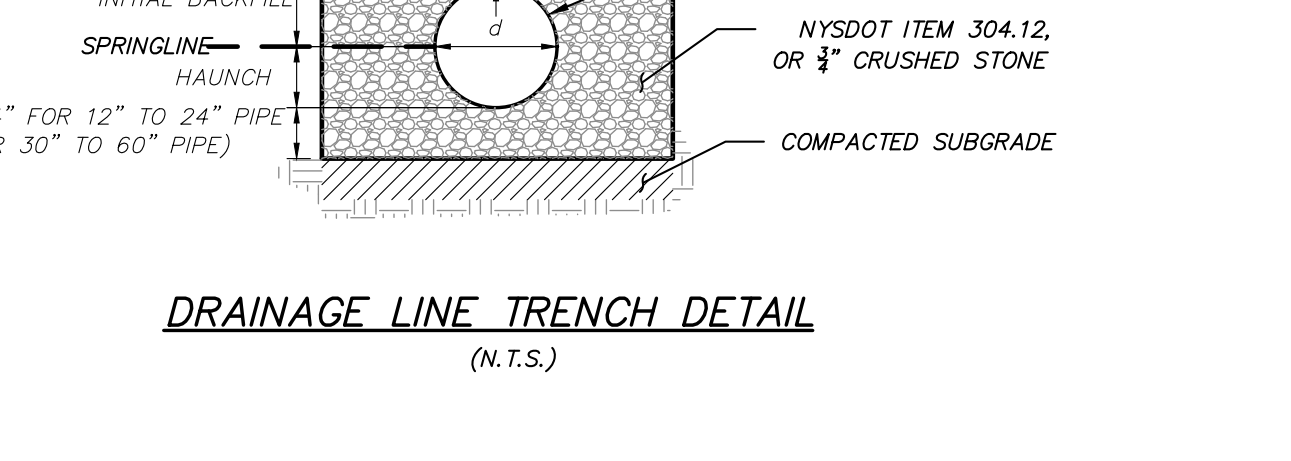
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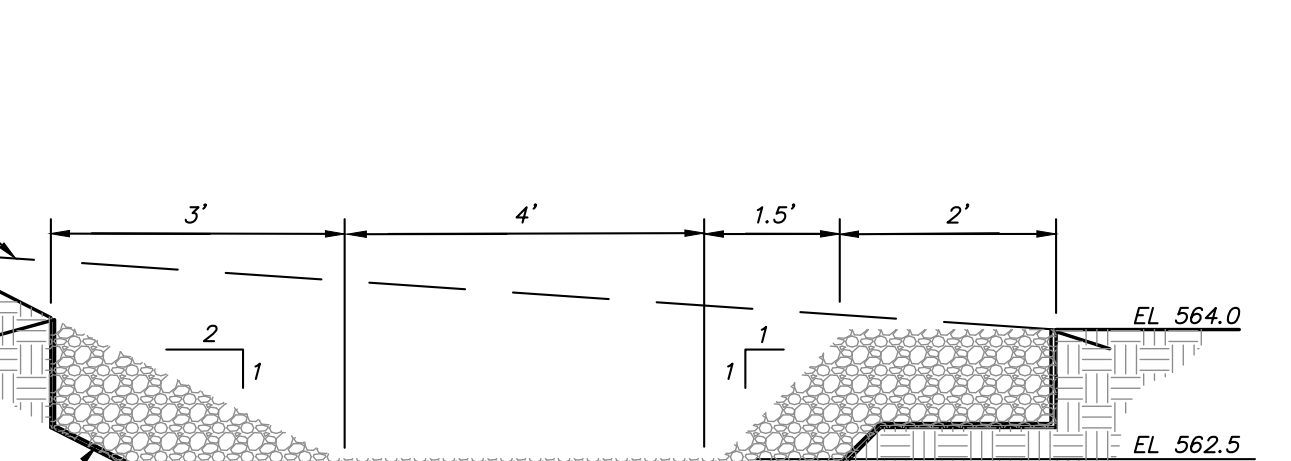
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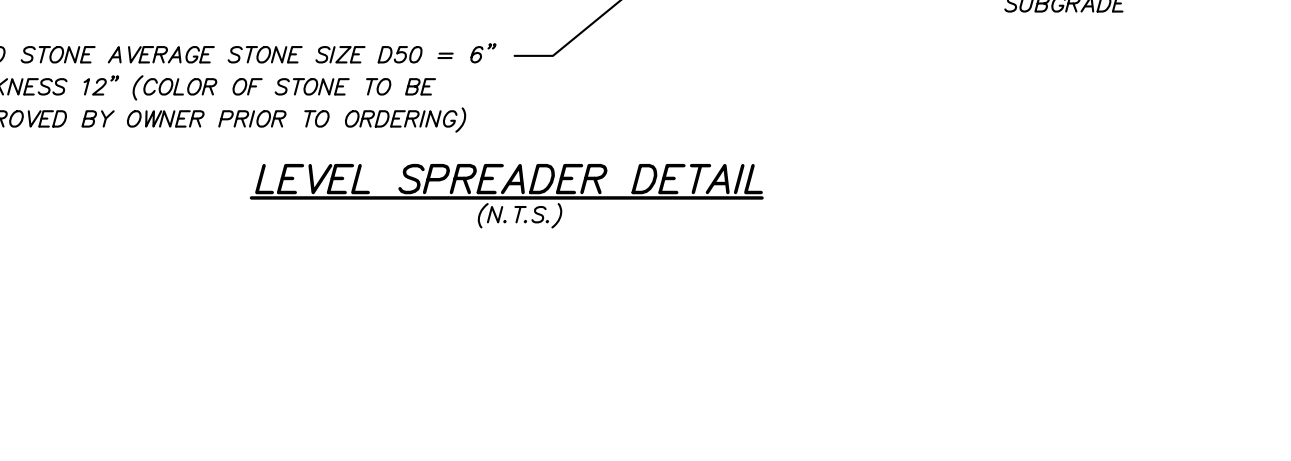
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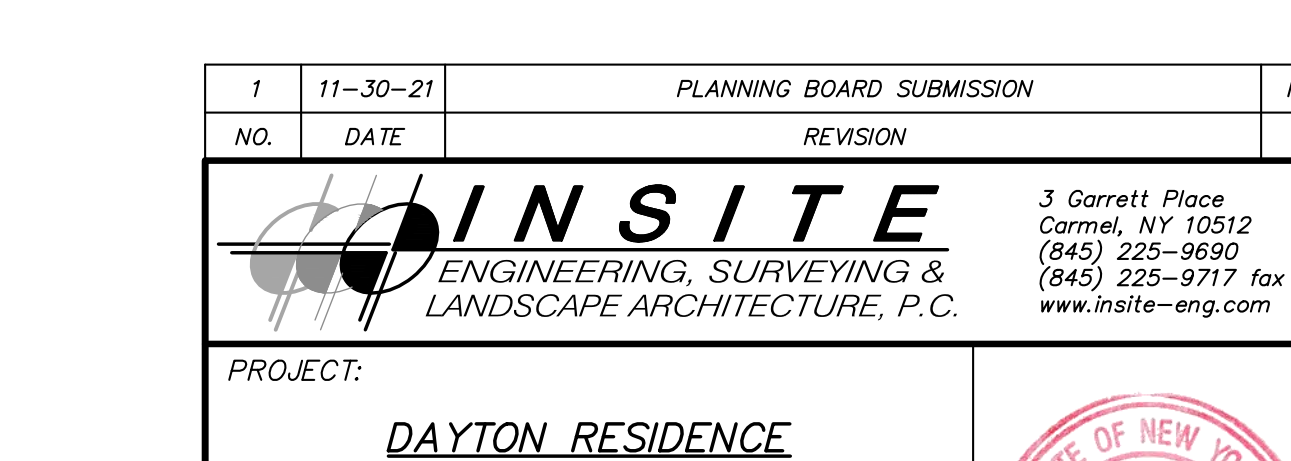
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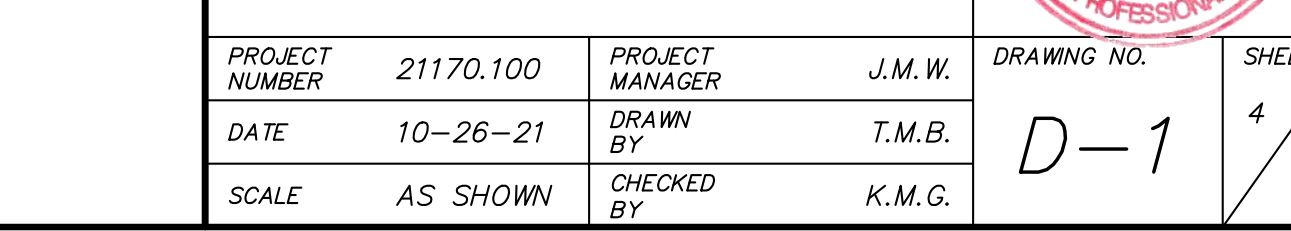


TREE PLANTING DETAIL (N.T.S.)



TREE PLANTING DETAIL (N.T.S.)

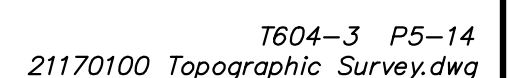
STONE WALL DETAIL (N.T.S.)



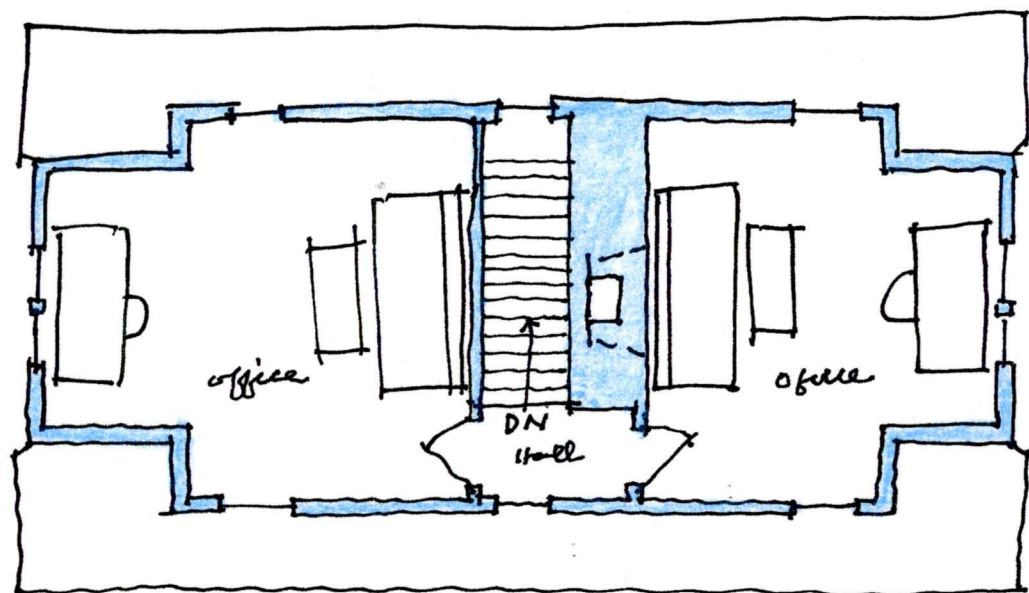
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.

1	11-30-21	PLANNING BOARD SUBMISSION	MEU
NO.	DATE	REVISION	BY
<b>INSITE</b> ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.			
PROJECT: DAYTON RESIDENCE			
DRAWING: DETAILS			
PROJECT NUMBER	21170.100	PROJECT MANAGER	J.M.W.
DATE	10-26-21	DRAWN BY	T.M.B.
SCALE	AS SHOWN	CHECKED BY	K.M.G.
DRAWING NO.		SHEET	
D-1		4	





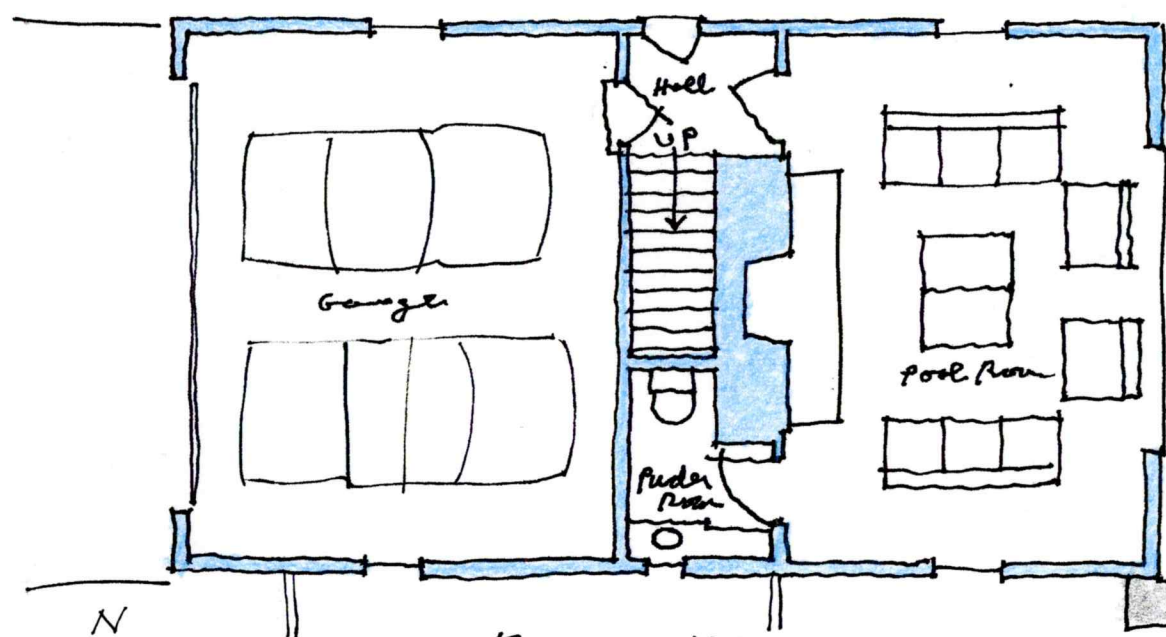




~ Second Floor ~



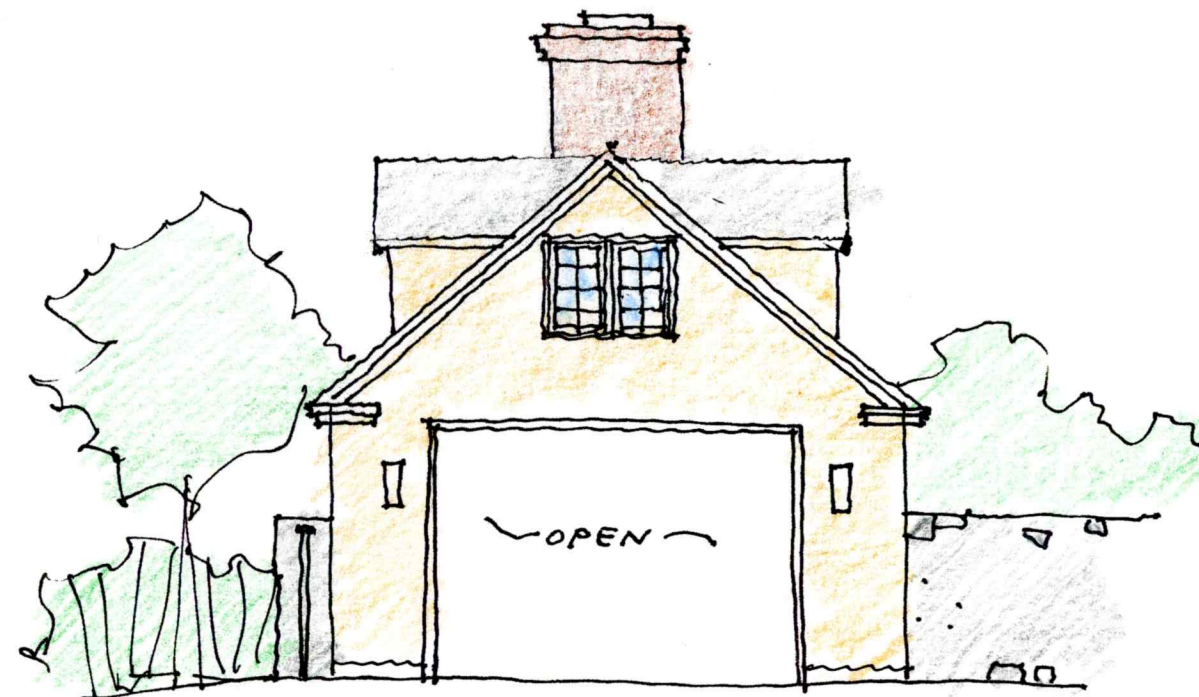
~ South Elevation ~



~ First Floor ~

Walled  
Courtyard  
&  
Pool Area

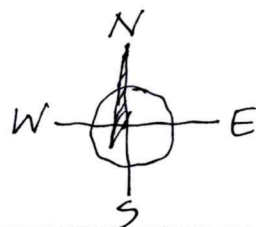
Dayton Garage  
1/2" = 1'-0"



~ Pool Room ~

~ East Elevation ~

11.29.2021  
TTT Design





LEGEND	
	EXISTING PROPERTY LINE
	EXISTING SETBACK
	EXISTING STONE WALL
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	EXISTING SPOT GRADE
	EXISTING CHAIN LINK FENCE
	EXISTING WETLAND FLAG
	EXISTING WETLAND BUFFER
	EXISTING WELL
	PROPOSED 8' CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED SPOT ELEVATION
	PROPOSED CATCH BASIN
	PROPOSED END SECTION
	PROPOSED DRAINAGE PIPE
	PROPOSED SILT FENCE OR STRAW HAT
	PROPOSED CONSTRUCTION FENCE
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED TEMPORARY SOIL STOCKPILE
	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED DAMAGE STRUCTURE W/ ALLEY PROTECTION

#### CONSTRUCTION NOTES:

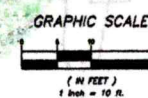
1. Minimum OSHA site standards must be maintained including personal protective equipment and safety. The contractor shall be responsible for guarding and protecting all open excavations in accordance with the latest edition and current OSHA requirements.
2. The contractor shall field verify all dimensions relative to the scope of work.
3. The contractor shall field verify the existing grades / utility locations prior to commencement of any work. Any discrepancy shall be reported to the project engineer when identified.
4. Contractor shall be responsible for removal of all excess rock, riprap, subsoil, and construction debris from the site.
5. The contractor shall place boards/planks to protect lawn from construction access to site. Boards/planks shall be put up and stored when not in use.

#### CONSTRUCTION SEQUENCE:

1. Install all fences in general locations indicated on the plan.
2. Strip and stockpile topsoil within limits of disturbance for later use in lawn and landscape areas.
3. Remove section of existing stone wall.
4. Install proposed equipment pads.
5. Install courtyard improvements including stormwater drains with inlet grate/catchment.
6. Upon completion of pool and courtyard improvements construct proposed stone wall.
7. Upon completion of all grading operations and pool & wall construction, riprap, rock, and mulch of remaining disturbed areas on plan as specified in accordance with the Erosion and Sediment Control Notes contained on this page.

11.29.2021  
11.21.2021  
SP-1C SKETCH  
TTT OVER INSITE

NO.	DATE	REVISION	BY
<b>INSITE</b> ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.			
PROJECT: <b>DAYTON RESIDENCE</b> 22 HEAD STREET, TOWN OF LEWISBURG, WESTCHESTER CO., NEW YORK			
DRAWING: <b>GRADING, EROSION AND SEDIMENT CONTROL PLAN</b>			
PROJECT NUMBER	21170.100	PROJECT MANAGER	J.M.W.
DATE	10-26-21	DRAWN BY	T.M.B.
SCALE	1" = 10'	CHECKED BY	J.M.W.
DRAWING NO.	SP-1		
SHEET	3		



*Landscape Sketch  
Showing Proposed  
Hardscaping + Plantings*



The Office of the Westchester County Clerk: This page is part of the instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.



\*602753613DED003X\*

## Westchester County Recording & Endorsement Page

### Submitter Information

Name: Court Street Abstract, Inc. Phone: 914-328-6206  
Address 1: 99 Court Street Fax: 914-328-6207  
Address 2: Paul Baran Email: vgyug@courtstabstract.com  
City/State/Zip: White Plains NY 10601 Reference for Submitter: Mead

### Document Details

Control Number: **602753613** Document Type: **Deed (DED)**  
Package ID: 2020100100289001001 Document Page Count: **3** Total Page Count: **5**

### Parties

☒ Additional Parties on Continuation page

#### 1st PARTY

1: FLOREN LENNART S  
2: REGIS SUSAN

- Individual  
- Individual

#### 2nd PARTY

1: DAYTON DUNCAN N  
2: DAYTON RENE A T

- Individual  
- Individual

### Property

☐ Additional Properties on Continuation page

Street Address: 62 MEAD STREET  
City/Town: LEWISBORO

Tax Designation: 22-10802-70  
Village:

### Cross- References

☐ Additional Cross-Refs on Continuation page

1: 2: 3: 4:

### Supporting Documents

1: RP-5217 2: TP-584

### Recording Fees

Statutory Recording Fee: \$40.00  
Page Fee: \$20.00  
Cross-Reference Fee: \$0.00  
Mortgage Affidavit Filing Fee: \$0.00  
RP-5217 Filing Fee: \$125.00  
TP-584 Filing Fee: \$5.00  
RPL 291 Notice Fee: \$10.00  
Total Recording Fees Paid: **\$200.00**

### Transfer Taxes

Consideration: \$2,200,000.00  
Transfer Tax: \$8,800.00  
Mansion Tax: \$22,000.00  
Transfer Tax Number: 19334

### Mortgage Taxes

Document Date:  
Mortgage Amount:  
  
Basic: \$0.00  
Westchester: \$0.00  
Additional: \$0.00  
MTA: \$0.00  
Special: \$0.00  
Yonkers: \$0.00  
Total Mortgage Tax: **\$0.00**

Dwelling Type: Exempt: ☐  
Serial #:

RECORDED IN THE OFFICE OF THE WESTCHESTER COUNTY CLERK



Recorded: 10/27/2020 at 11:01 AM  
Control Number: **602753613**  
Witness my hand and official seal

*Timothy C. Idoni*

Timothy C. Idoni  
Westchester County Clerk

### Record and Return To

☐ Pick-up at County Clerk's office

COURT STREET ABSTRACT, INC.  
99 Court Street

White Plains, NY 10601  
Attn: Marie Cote



The Office of the Westchester County Clerk: This page is part of the instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.

\*602753613DED003X\*

## Westchester County Recording & Endorsement Page

### Document Details

Control Number: **602753613**

Document Type: **Deed (DED)**

Package ID: 2020100100289001001

Document Page Count: 3

Total Page Count: 5

### 1st PARTY Addendum

### 2nd PARTY Addendum

PINK SHACK LLC

Other



CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

**THIS INDENTURE**, made the 13th day of October 2020  
**BETWEEN**

**SUSAN REGIS and LENNART S. FLOREN (64%)** having an address at 62 Mead Street, Waccabuc, New York 10597 and **PINK SHACK LLC (36%)**, having an address at 68 Mead Street, Waccabuc, New York 10597, party of the first part, and

**RENEA TOPP DAYTON and DUNCAN N. DAYTON**, husband and wife, having an address at 324 Mills Road, North Salem, NY 10560, party of the second part,

**WITNESSETH**, that the party of the first part, in consideration of 1.00 dollars paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

**ALL** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Town of Lewisboro, County of Westchester, State of New York and more particularly described in Schedule A attached hereto.

Being the same premises acquired by Deed dated 7/19/2007 from John J. O'Neil as Executor of the Last Will & Testament of Suzanne F. Newlon D/O/D 1/14/2007 and recorded 8/6/2007 in the Office of the Clerk of the County of Westchester as Control No. 472080860.

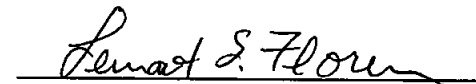
**TOGETHER** with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; **TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises; **TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

**AND** the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

**AND** the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

**IN WITNESS WHEREOF**, the party of the first part has duly executed this deed the day and year first above written.

  
SUSAN REGIS

  
LENNART S. FLOREN

PINK SHACK LLC

By:   
Jeanne Donovan Fisher, Sole Member



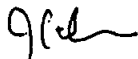


**ACKNOWLEDGEMENT TAKEN IN NEW YORK STATE**

State of New York,  
County of Westchester

ss:

On the 9<sup>th</sup> day of October in the year 2020, before me, the undersigned, personally appeared Susan Regis, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



JACLYN S. COLEMAN  
Notary Public, State of New York  
No. 02CO6117450  
Qualified in New York County  
Commission Expires ~~Oct. 25, 2012~~  
1/3/21

**ACKNOWLEDGEMENT TAKEN IN NEW YORK STATE**

State of New York,  
County of Westchester

ss:

On the 9<sup>th</sup> day of October in the year 2020, before me, the undersigned, personally appeared Jeann Donovan Fisher, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



JACLYN S. COLEMAN  
Notary Public, State of New York  
No. 02CO6117450  
Qualified in New York County  
Commission Expires ~~Oct. 25, 2012~~  
1/3/21

**ACKNOWLEDGEMENT TAKEN IN NEW YORK STATE**

State of New York,  
County of Westchester

ss:

On the 9<sup>th</sup> day of October in the year 2020, before me, the undersigned, personally appeared Lennart Floren, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



JACLYN S. COLEMAN  
Notary Public, State of New York  
No. 02CO6117450  
Qualified in New York County  
Commission Expires ~~Oct. 25, 2012~~  
1/3/21





## **Schedule A Description**

Title Number **CSA20-07791-W**

Page **1**

**ALL** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Town of Lewisboro, County of Westchester and State of New York, being bounded and described as follows:

**BEGINNING** at a point on the westerly side of Mead Street where the same is intersected by the northerly line of lands now or formerly belonging to Katzenbach, said point being distant North 21 degrees 49 minutes 10 seconds East 25.00 feet as measured along said westerly side of Mead Street from the northeast corner of lands now or formerly belonging to Perry;

**THENCE** from said point of beginning and running along lands now or formerly belonging to said Katzenbach the following courses and distances:

South 88 degrees 52 minutes 30 seconds West 119.39 feet;  
North 80 degrees 37 minutes 25 seconds West 144.00 feet;  
North 55 degrees 59 minutes 00 seconds West 40.82 feet; and  
North 78 degrees 33 minutes 30 seconds West 555.00 feet to a point;

**THENCE** turning and running along said lands of Katzenbach North 8 degrees 31 minutes 43 seconds West 519.22 feet to a point;

**THENCE** turning and running along lands now or formerly belonging to the Waccabuc Country Club and also along lands now or formerly belonging to Healy South 85 degrees 19 minutes 40 seconds East 230.00 feet to a point;

**THENCE** turning and running South 6 degrees 29 minutes 00 seconds East 312.76 feet along lands now or formerly belonging to Laura P. Merrill to a point;

**THENCE** turning and running South 78 degrees 58 minutes 20 seconds East 743.06 feet to a point in the westerly side of Mead Street where the same is intersected by the southerly line of lands now or formerly belonging to Laura P. Merrill;

**THENCE RUNNING** and running South 21 degrees 49 minutes 10 seconds West 177.98 feet to the point or place of **BEGINNING**.





## **STORMWATER MANAGEMENT REPORT**

**Prepared For**

**Dayton Residence**

**62 Mead Street**

**Town of Lewisboro, New York**

**November 30, 2021**

The subject project is located on 62 Mead Street in the Town of Lewisboro. The property is designated as Tax Map Number 42.2-1-12 and is in the R-4A zoning district. The property is currently developed with a 2-story main residence with a detached garage, a cottage with a detached garage, driveway, individual drilled well and onsite wastewater treatment system (OWTS). It is proposed to remodel the existing courtyard, lengthen the existing main residence detached garage, install a patio/deck off the north side of the main residence, adjust the layout of the driveway and auto court for the main residence and install associated appurtenances. The property is located in Waccabuc, directly west of the Waccabuc Country Club Golf Course. To the east of the main residence is a large open field classified as a wetland, as such much of the property, existing house, existing well, and existing OWTS are within the 150-foot wetland buffer.

The primary residence is located along a small local highpoint/ridge running north to south which results in the stormwater runoff for main residence flowing either to the east or to the west. The east runoff flows into the existing wetland and the west runoff flows onto the neighbor's property. Both portions of the stormwater runoff from the main residences will ultimately drain on the Waccabuc Country Club Golf Course. The stormwater quantity analysis included in this report utilizes Design Line 1 along the wetland boundary to the east of the main residence and Design Line 2 along the western property line. This design line was chosen to limit the analysis of the property to within the limits of disturbance (LOD) and focus on the effects of the redevelopment. See Figure 1 for the Pre-Development Drainage Area Map depicting the existing site conditions mentioned above and Attachment A for the Pre-Development HydroCAD Stormwater Analysis.

The onsite soil located within the proposed limits of disturbance consist of Paxton Fine Sandy Loam (PnB) and Woodbridge Loam (Wdb) as identified on the Soil Conservation Service Web Soil Survey. The PnB soils are identified with a hydrologic soil group C and the WdB soils are identified with a hydrologic soil group D. Soil infiltration and deep testing was completed and witnessed to verify onsite soil conditions. See Figure 3 for testing results.

Since the project consists of proposed disturbances between 5,000 square feet and 1 acre, and is located in the New York City Watershed, an erosion control only Stormwater Prevention Plan (SWPPP) is required by the New York State Department Environmental Conservation (NYSDEC) per the *NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit Number GP-0-20-001*. However, the Town, as a policy typically requires new impervious surfaces to be treated with permanent stormwater management practices (SMP's) to address both stormwater quality and quantity.

A proposed subsurface infiltration system has been sized to capture, treat, and store the Runoff Reduction Volume / Water Quality Volume from the tributary area. The subject project is located in the New York City Watershed, which is listed as a phosphorus-limited watershed per the NYSDEC regulations. Therefore, the stormwater management practices have been designed in general accordance with Chapter 9 Redevelopment and the Enhanced Phosphorus Removal Supplement (Chapter 10) of the Design Manual. Per Chapter 9 of the design manual, 25% of the WQv from redevelopment is required to be captured. As outlined in Chapter 10, the treatment volume for the WQv is the runoff volume produced during the 1-year 24-hour design storm.

A total of 4,800 s.f. of new impervious surfaces and 8,000 s.f. of redeveloped impervious surfaces are proposed. In general accordance with Chapter 9 of the design manual at least 25% of the redeveloped impervious area will be captured and conveyed to the subsurface stormwater infiltration system. This results in



4,800 s.f. of new impervious and 2,000 s.f. of redeveloped impervious required to be conveyed to the subsurface infiltration system, totaling 6,800 s.f. of required treated impervious surfaces. It is proposed to treat the impervious surfaces associated with the courtyard, detached garage, pathways, and a section of the driveway totaling an impervious area of 7,300 s.f. This area is greater than the required treatment area of 6,800 s.f. and as such the contributing impervious area to the proposed Stormwater Management practice (SMP) is sized to treat an increase in impervious area and redevelopment on the site. This total new site impervious area is also oversized by 500 s.f. to account for the potential future addition of a 3<sup>rd</sup> garage bay on the attached garage of the primary residence. See Figure 2 for the Post Development Drainage Area Map depicting the proposed site conditions mentioned above. It should be noted there is currently no known stormwater treatment onsite.

The proposed stormwater management practice consists of an infiltration practice (NYSDEC Design I-4) to meet both the WQv and RRv requirements as well as provide the necessary peak flow attenuation to satisfy the overbank and extreme overbank flood control requirements. The infiltration system is designed as an offline practice and to store the WQv from the contributing area. A flow splitter is proposed upstream of the infiltrator to make the practice offline. Proposed drain inlets and roof drains will collect stormwater from the proposed terrace, garage, pathways, and driveway and discharge to a proposed flow splitter. The flow splitter discharges into the infiltration system with an overflow pipe to a level spreader.

The volume provided in the infiltration system is equal to or higher than the Runoff Reduction Volume / Water Quality Volume as shown in Table 1 below:

**Table 1 Infiltration Area Water Quality Volume Treatment Summary**

Subcatchment	Treatment Practice	NYSDEC Design Practice Designation	Total Required WQ <sub>v</sub> (c.f.)	Proposed Storage Volume of Infiltration System (c.f.)
1.1S	1.1P	Infiltration System (I-4)	1,482	1,536

As shown in Table 1 above, the WQv provided in the SMP's exceeds the required WQv. See Attachment B of this report for further information regarding the volume provided.

The peak flows generated by the increase in impervious surfaces will be mitigated by the proposed SMP. The 10-year, 25-year and 100-year, 24-hour storms were design storms were used in the analysis. As seen in the attached calculations the SMP provides the necessary volume reduction to reduce the post-development peak flows to below pre-development levels.

The following table summarizes the pre- and post-development peak flows expected for the proposed project:

**Table 2 – Existing and Proposed Condition Peak Flows (cfs)**

24-HOUR DESIGN STORM PEAK FLOWS (c.f.s.)						
	10-YEAR		25-YEAR		100-YEAR	
	Pre	Post	Pre	Post	Pre	Post
Design Line 1	2.89	2.66	3.83	3.53	5.73	5.36
Design Line 2	2.03	1.46	2.57	1.88	3.65	2.71

As seen by the above summary, the post-development peak flows for 10-year, 25-year and 100-year design storms have been attenuated to be less than the pre-development peak flows. Coupled with the minimal increase in impervious area, and stormwater treatment being provided (currently there is no treatment onsite) there will be a net benefit in stormwater quality to the site. .

#### **Attachments:**

Attachment A – Pre-Development HydroCAD Stormwater Analysis  
 Attachment B – Post-Development HydroCAD Stormwater Analysis  
 Attachment C – Pool Drawdown Calculation  
 Figure 1 – Pre-Development Drainage Map  
 Figure 2 – Post-Development Drainage Map  
 Figure 3 – Testing Plan

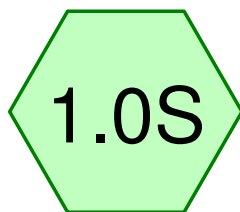


**ATTACHMENT A**  
**Pre-Development HydroCAD Stormwater Analysis**

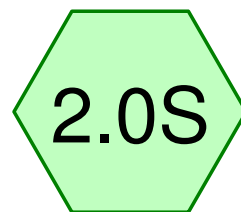




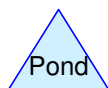
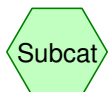




Pre



Pre



**Routing Diagram for Pre-Development**

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## Pre-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Subcatchment 1.0S: Pre

Runoff = 1.07 cfs @ 12.07 hrs, Volume= 0.076 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

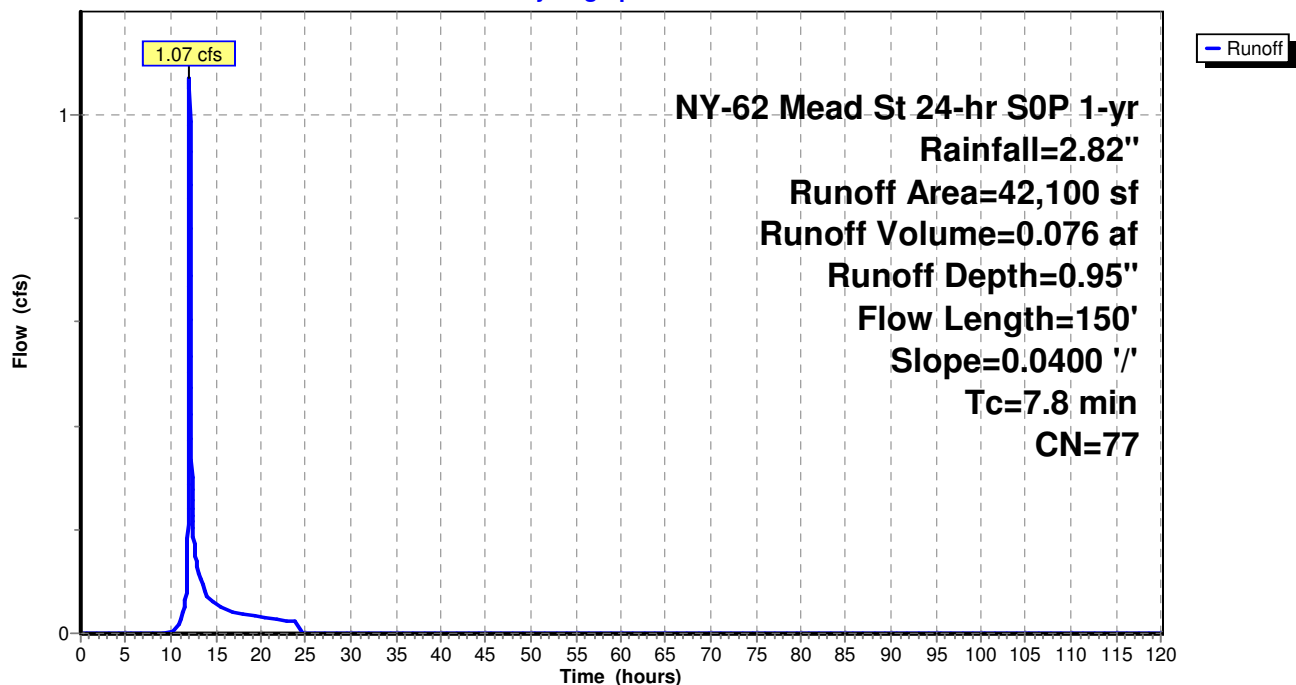
Area (sf)	CN	Description
2,600	98	Paved parking, HSG C
29,700	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
42,100	77	Weighted Average
39,500		93.82% Pervious Area
2,600		6.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

### Subcatchment 1.0S: Pre

Hydrograph





## Pre-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Subcatchment 2.0S: Pre

Runoff = 0.91 cfs @ 12.06 hrs, Volume= 0.060 af, Depth= 1.30"

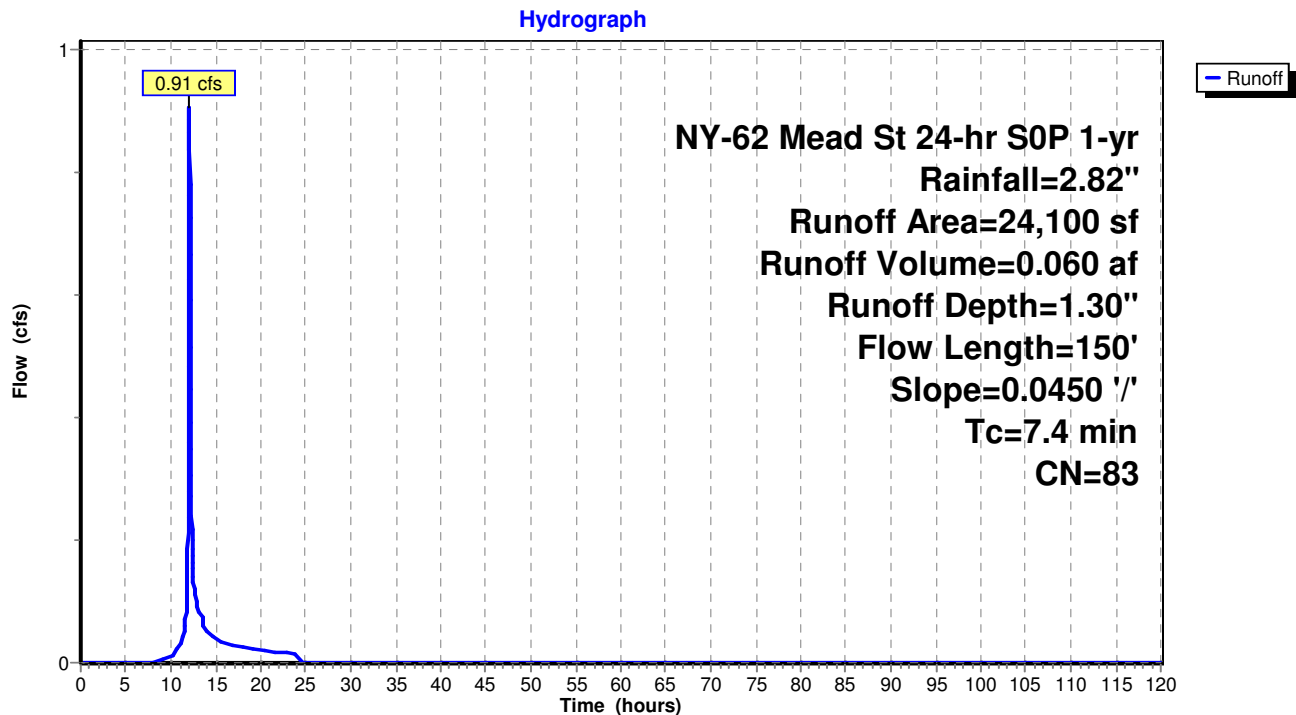
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

Area (sf)	CN	Description
9,000	98	Paved parking, HSG C
15,100	74	>75% Grass cover, Good, HSG C
24,100	83	Weighted Average
15,100		62.66% Pervious Area
9,000		37.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.0S: Pre





**Pre-Development**

NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

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**Summary for Subcatchment 1.0S: Pre**

Runoff = 2.89 cfs @ 12.07 hrs, Volume= 0.216 af, Depth= 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

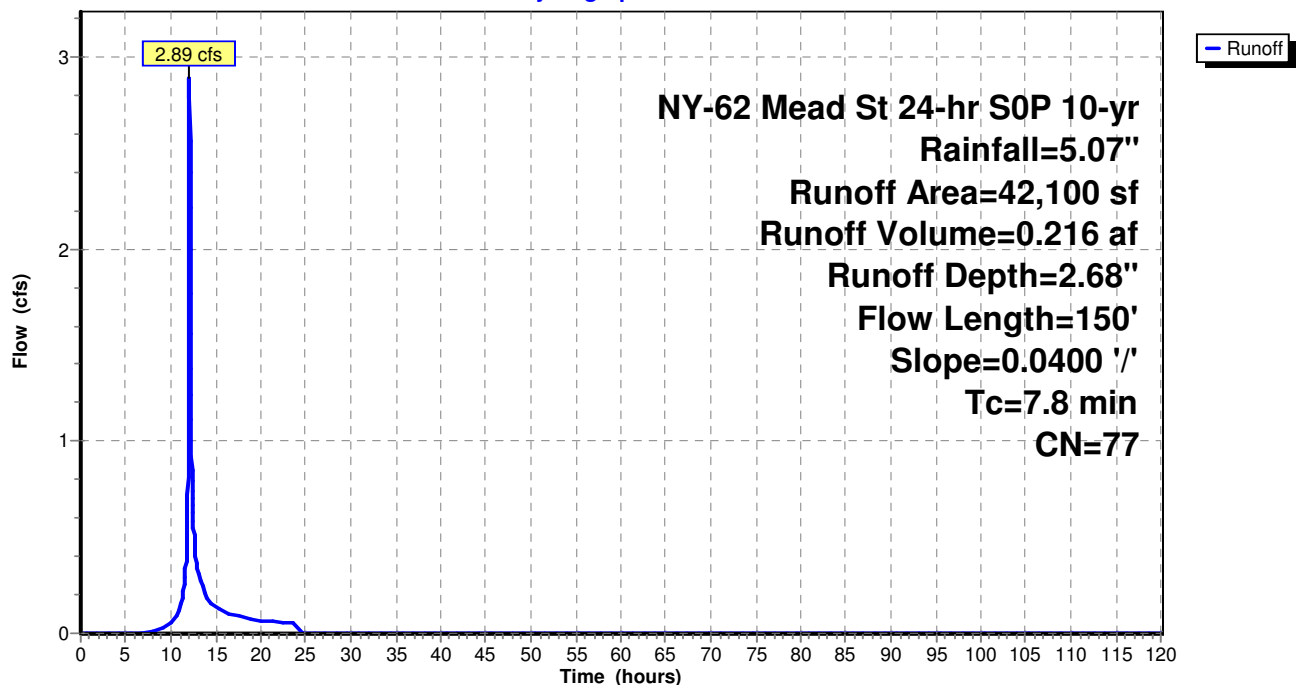
Area (sf)	CN	Description
2,600	98	Paved parking, HSG C
29,700	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
42,100	77	Weighted Average
39,500		93.82% Pervious Area
2,600		6.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

**Subcatchment 1.0S: Pre**

Hydrograph





## Pre-Development

NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

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### Summary for Subcatchment 2.0S: Pre

Runoff = 2.03 cfs @ 12.06 hrs, Volume= 0.149 af, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

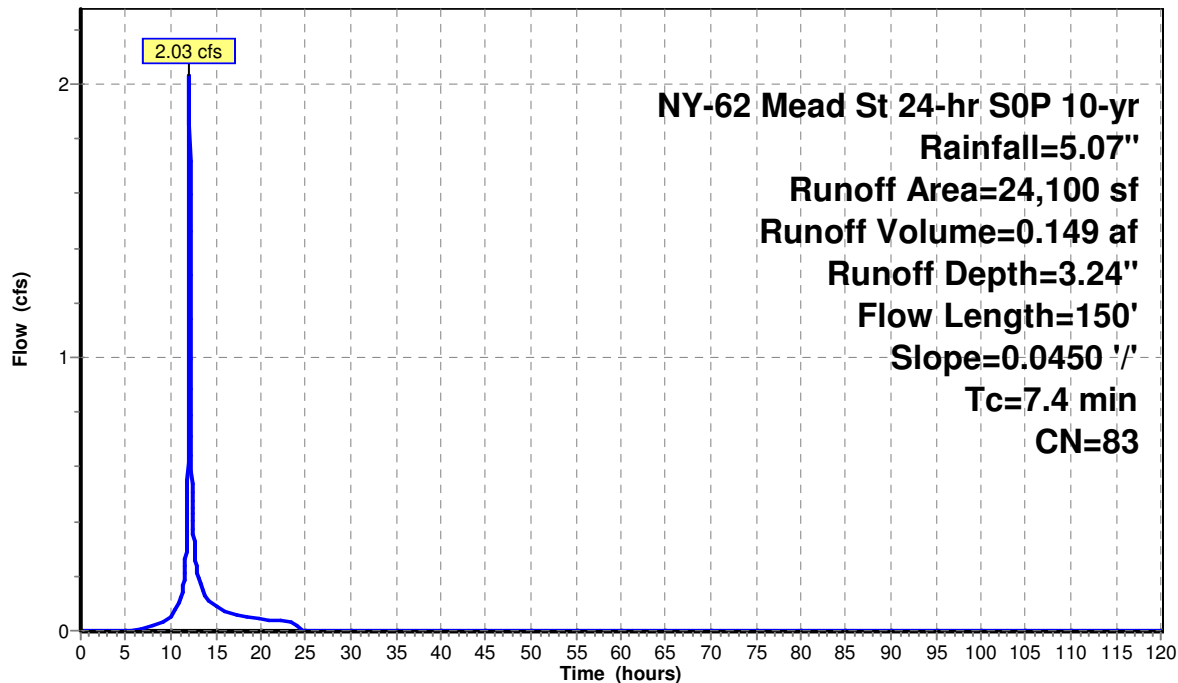
Area (sf)	CN	Description
9,000	98	Paved parking, HSG C
15,100	74	>75% Grass cover, Good, HSG C
24,100	83	Weighted Average
15,100		62.66% Pervious Area
9,000		37.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.0S: Pre

Hydrograph





**Pre-Development**

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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**Summary for Subcatchment 1.0S: Pre**

Runoff = 3.83 cfs @ 12.07 hrs, Volume= 0.307 af, Depth= 3.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

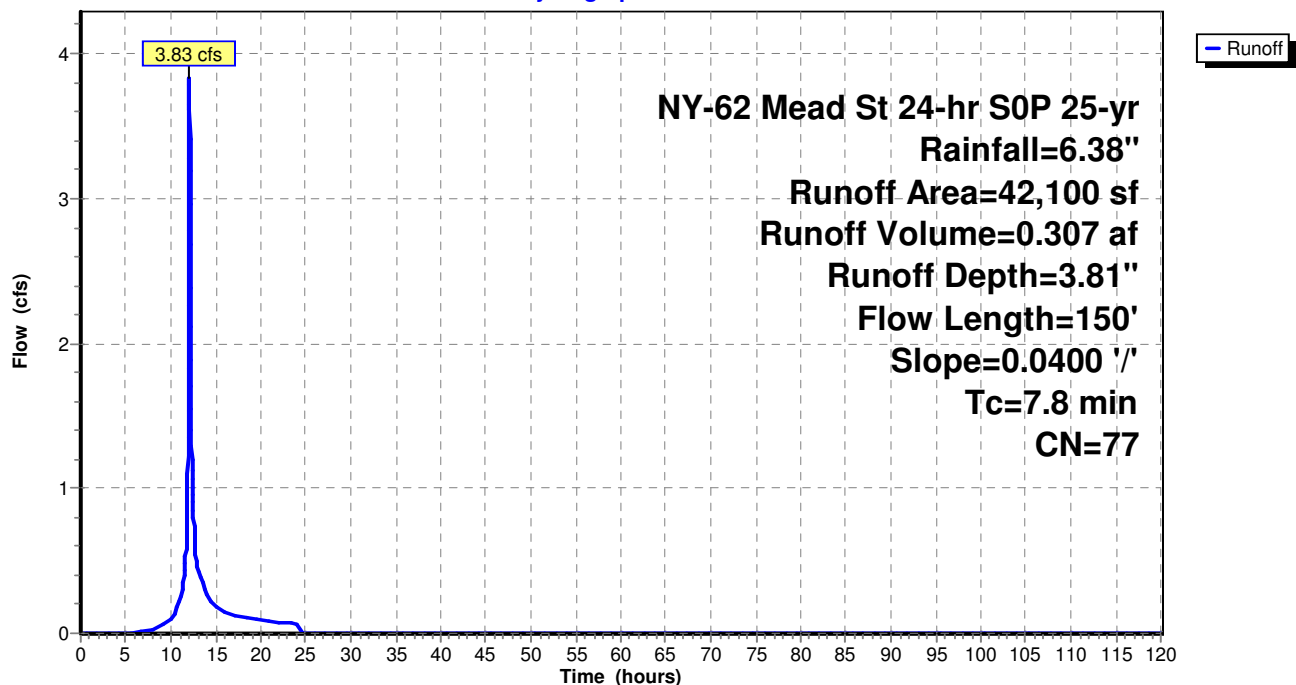
Area (sf)	CN	Description
2,600	98	Paved parking, HSG C
29,700	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
42,100	77	Weighted Average
39,500		93.82% Pervious Area
2,600		6.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

**Subcatchment 1.0S: Pre**

Hydrograph





## Pre-Development

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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### Summary for Subcatchment 2.0S: Pre

Runoff = 2.57 cfs @ 12.06 hrs, Volume= 0.205 af, Depth= 4.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

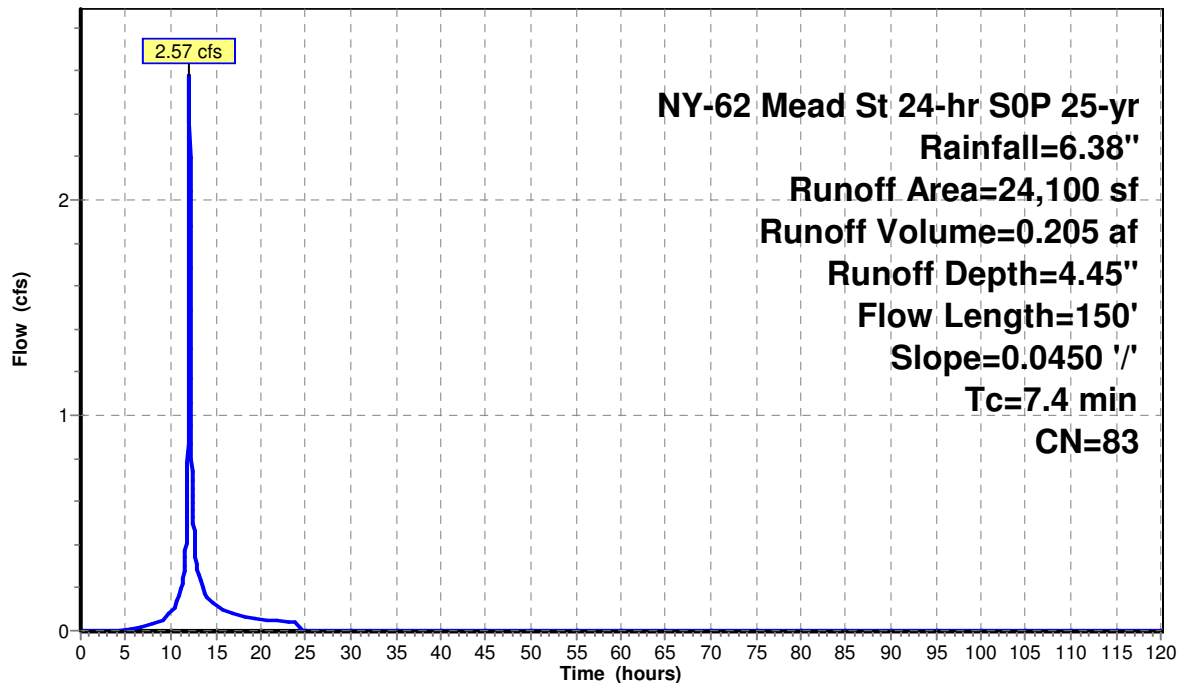
Area (sf)	CN	Description
9,000	98	Paved parking, HSG C
15,100	74	>75% Grass cover, Good, HSG C
24,100	83	Weighted Average
15,100		62.66% Pervious Area
9,000		37.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.0S: Pre

Hydrograph





## Pre-Development

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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### Summary for Subcatchment 1.0S: Pre

Runoff = 5.73 cfs @ 12.07 hrs, Volume= 0.502 af, Depth= 6.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

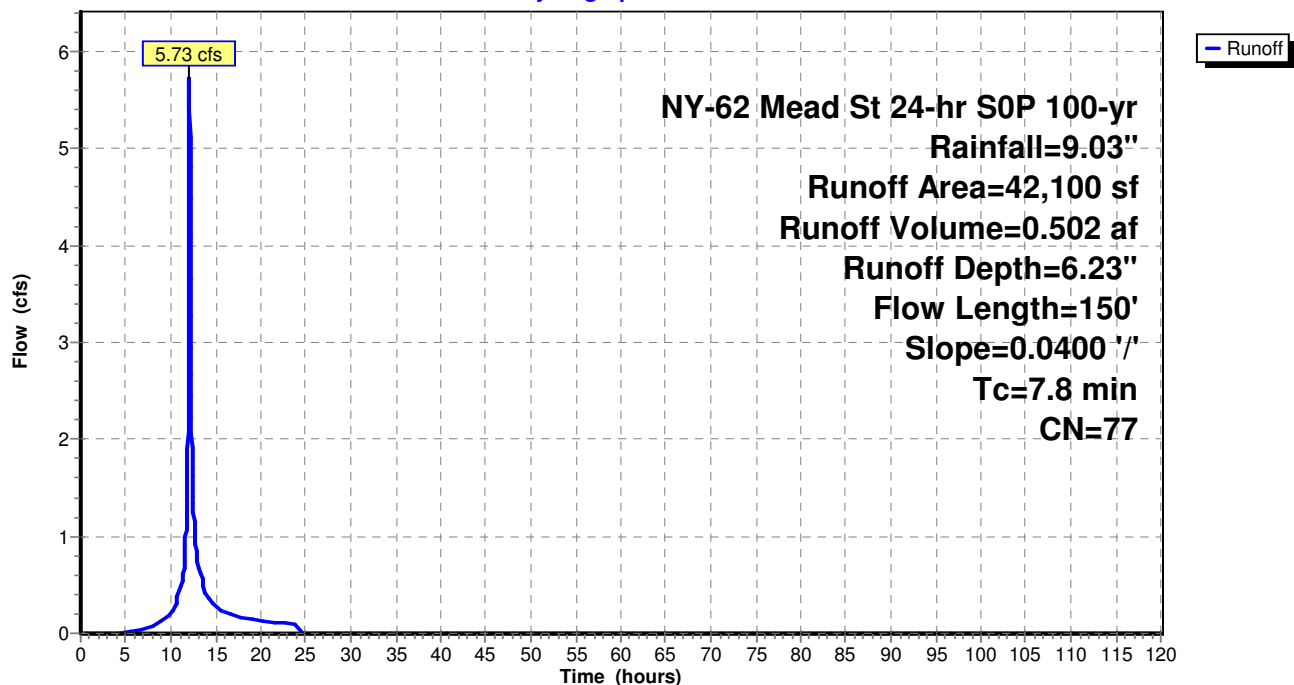
Area (sf)	CN	Description
2,600	98	Paved parking, HSG C
29,700	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
42,100	77	Weighted Average
39,500		93.82% Pervious Area
2,600		6.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

### Subcatchment 1.0S: Pre

Hydrograph





## Pre-Development

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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### Summary for Subcatchment 2.0S: Pre

Runoff = 3.65 cfs @ 12.06 hrs, Volume= 0.321 af, Depth= 6.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

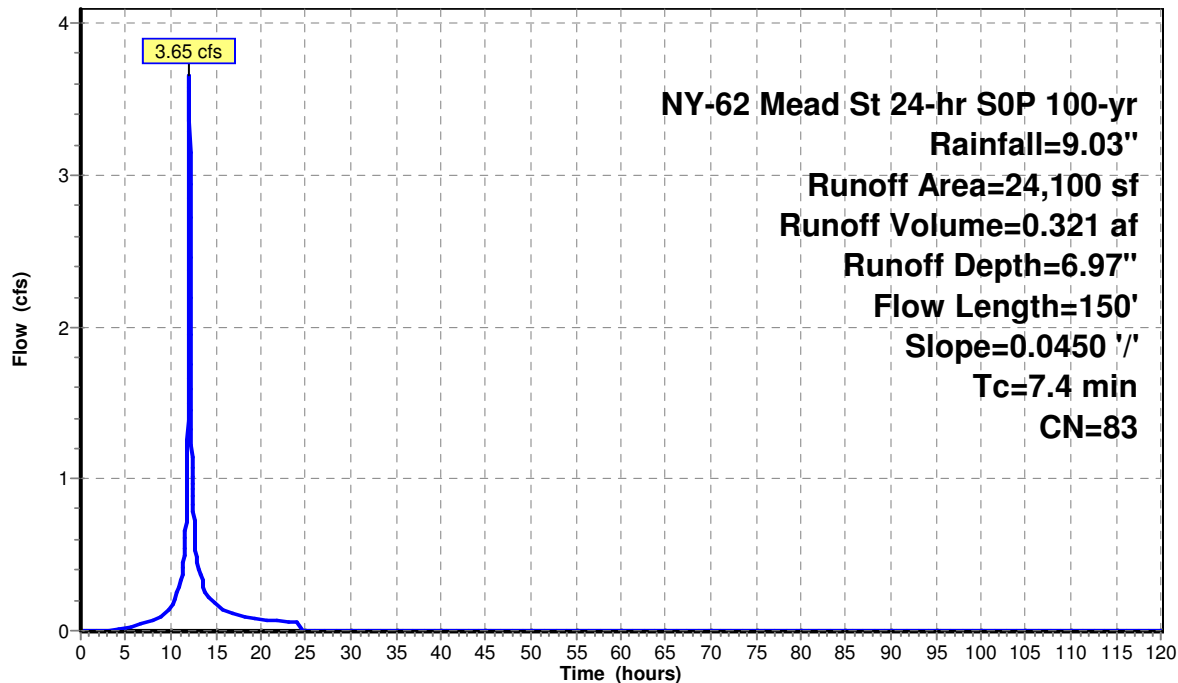
Area (sf)	CN	Description
9,000	98	Paved parking, HSG C
15,100	74	>75% Grass cover, Good, HSG C
24,100	83	Weighted Average
15,100		62.66% Pervious Area
9,000		37.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.0S: Pre

Hydrograph







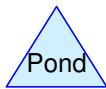
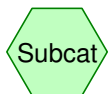
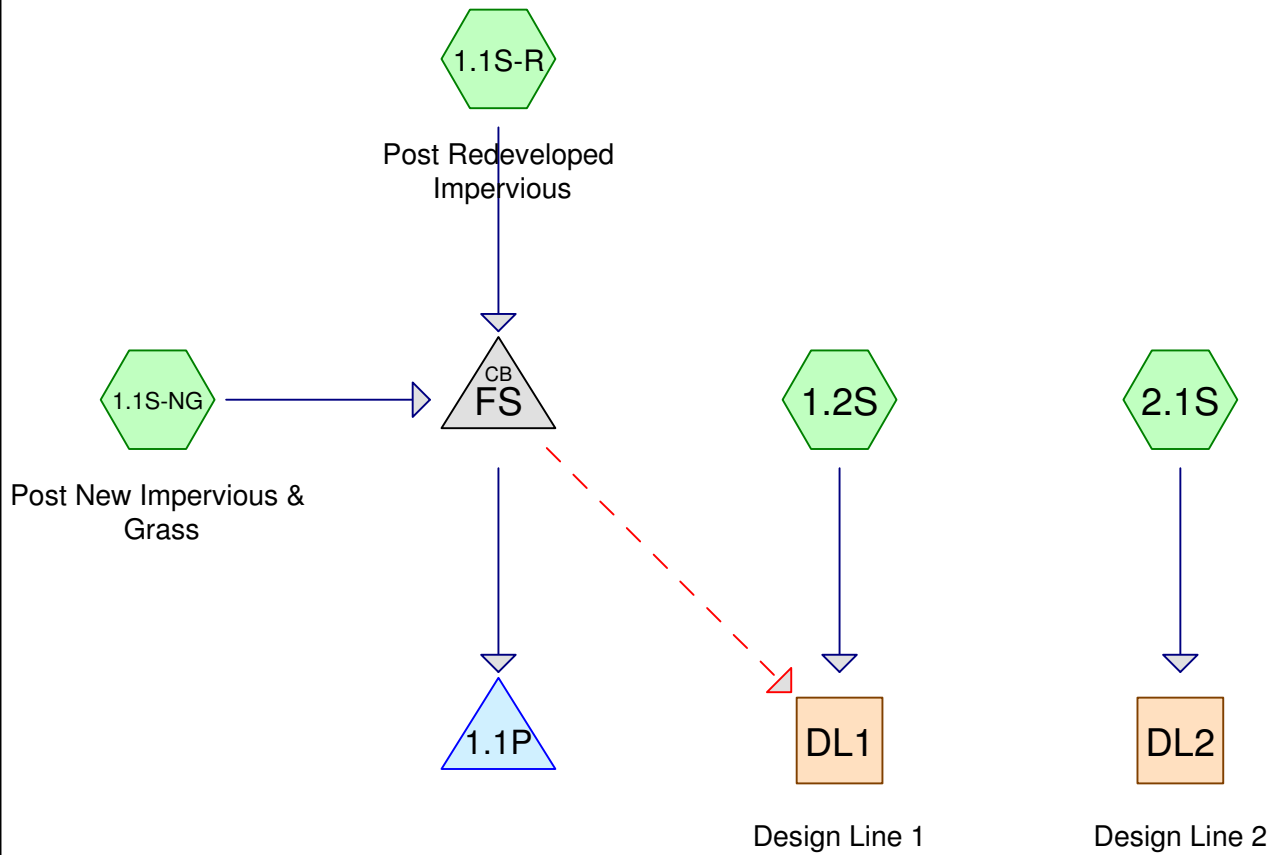


**ATTACHMENT B**  
**Post Development HydroCAD Stormwater Analysis**









#### Routing Diagram for Post-Development

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## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Subcatchment 1.1S-NG: Post New Impervious & Grass

Runoff = 0.40 cfs @ 12.04 hrs, Volume= 0.024 af, Depth= 1.82"

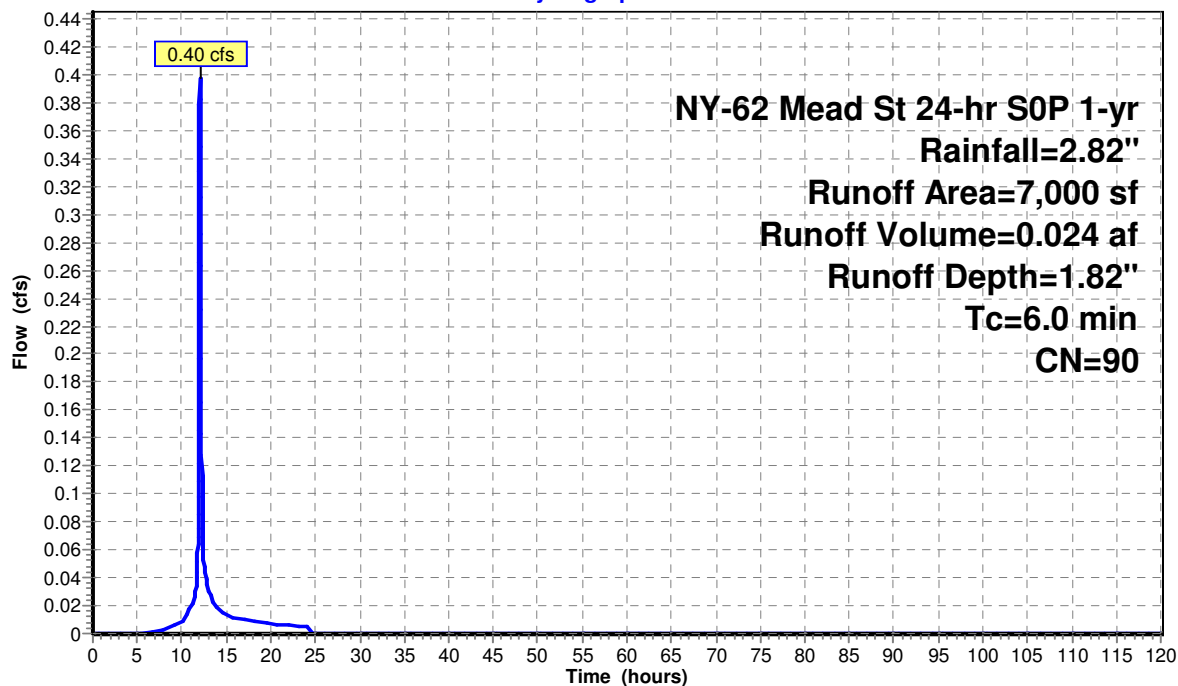
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

Area (sf)	CN	Description
4,800	98	Paved parking, HSG C
2,200	74	>75% Grass cover, Good, HSG C
7,000	90	Weighted Average
2,200		31.43% Pervious Area
4,800		68.57% Impervious Area

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

### Subcatchment 1.1S-NG: Post New Impervious & Grass

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Subcatchment 1.1S-R: Post Redeveloped Impervious

Runoff = 0.15 cfs @ 12.04 hrs, Volume= 0.010 af, Depth= 2.59"

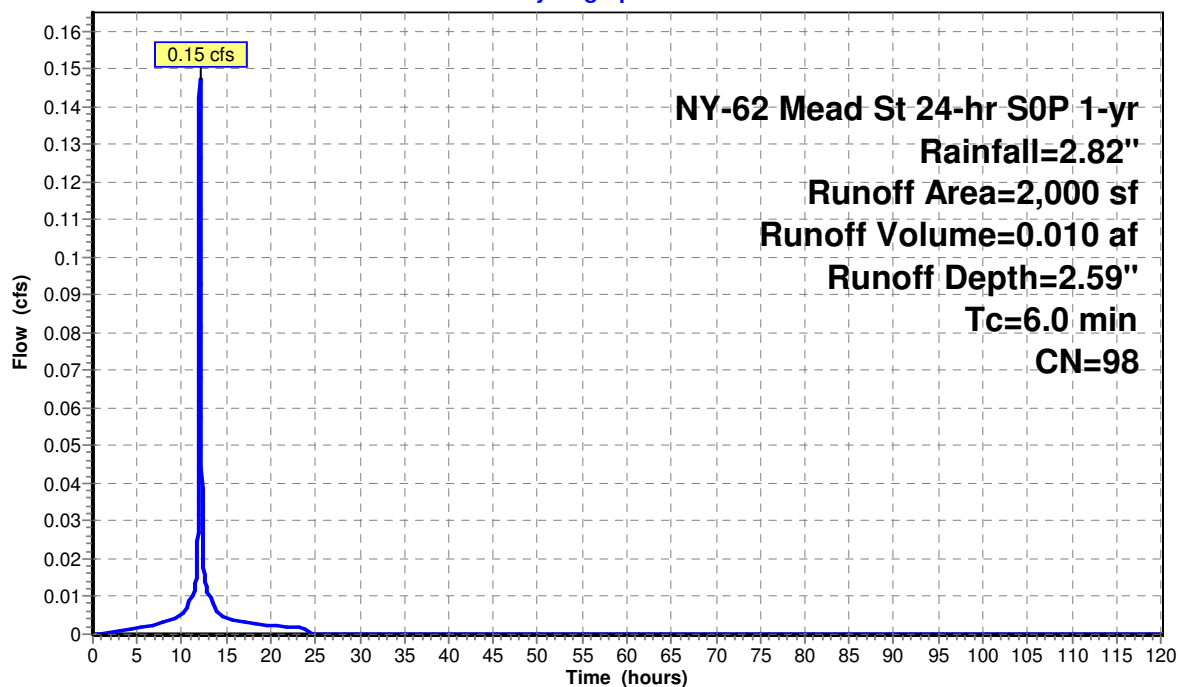
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

Area (sf)	CN	Description
2,000	98	Paved parking, HSG C
2,000		100.00% Impervious Area

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

### Subcatchment 1.1S-R: Post Redeveloped Impervious

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Subcatchment 1.2S:

Runoff = 0.99 cfs @ 12.07 hrs, Volume= 0.070 af, Depth= 0.95"

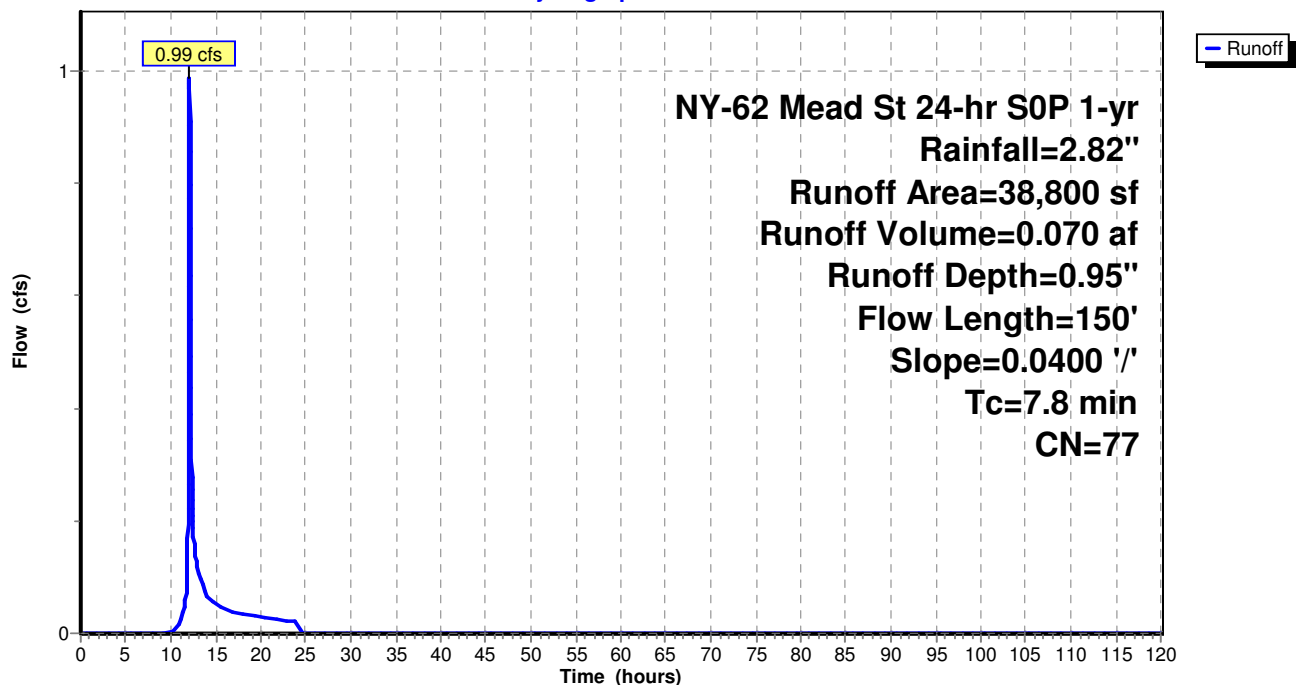
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

Area (sf)	CN	Description
1,700	98	Paved parking, HSG C
27,300	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
38,800	77	Weighted Average
37,100		95.62% Pervious Area
1,700		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

### Subcatchment 1.2S:

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Subcatchment 2.1S:

Runoff = 0.62 cfs @ 12.06 hrs, Volume= 0.041 af, Depth= 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

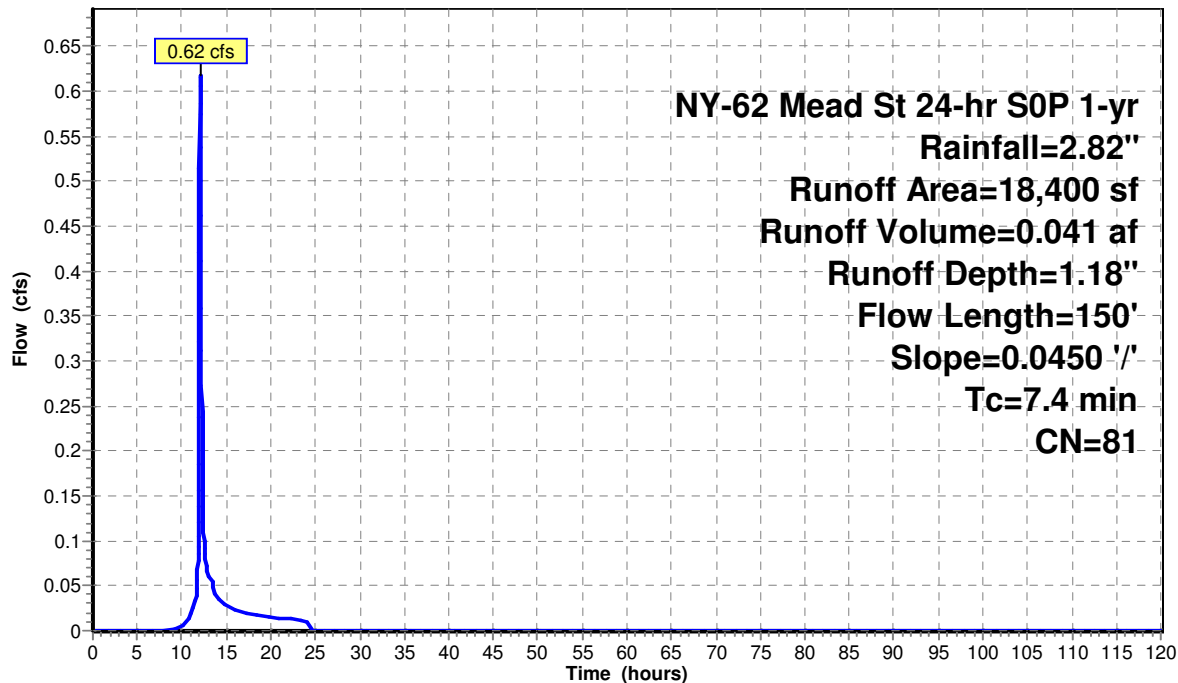
Area (sf)	CN	Description
5,700	98	Paved parking, HSG C
12,700	74	>75% Grass cover, Good, HSG C
18,400	81	Weighted Average
12,700		69.02% Pervious Area
5,700		30.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.1S:

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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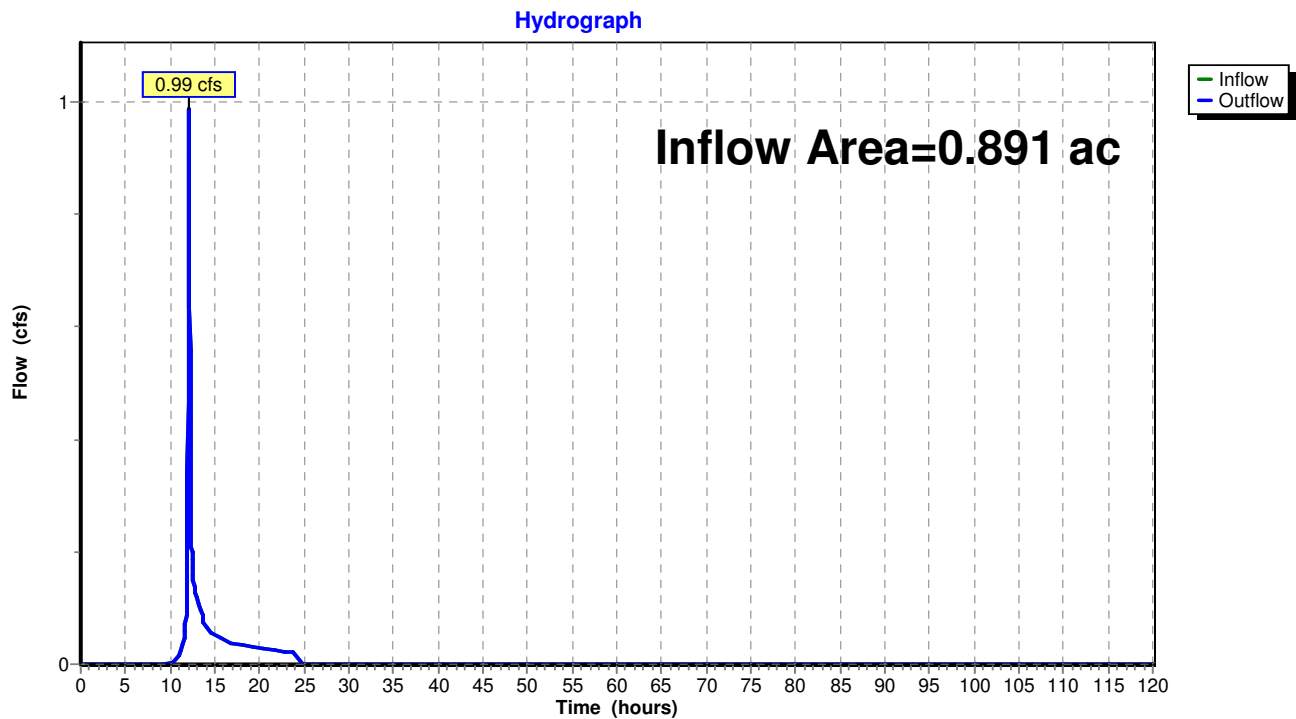
Page 6

### Summary for Reach DL1: Design Line 1

Inflow Area = 0.891 ac, 4.38% Impervious, Inflow Depth = 0.95" for 1-yr event  
Inflow = 0.99 cfs @ 12.07 hrs, Volume= 0.070 af  
Outflow = 0.99 cfs @ 12.07 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL1: Design Line 1





## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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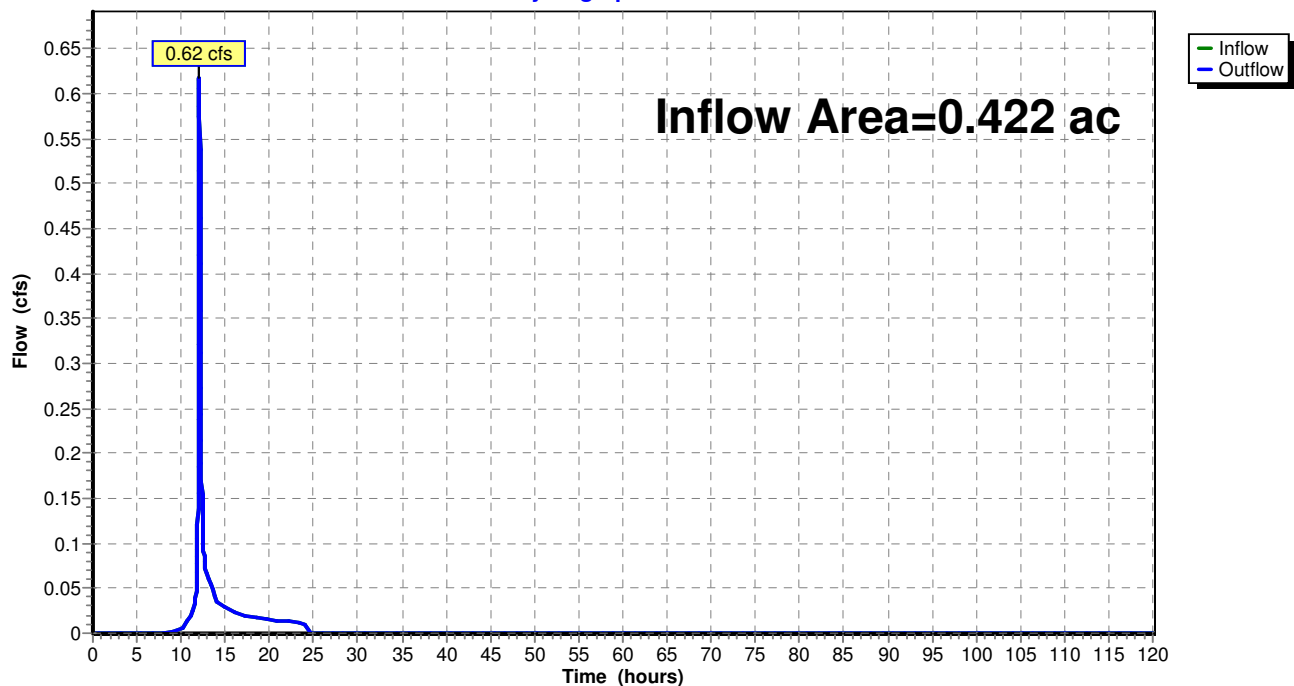
### Summary for Reach DL2: Design Line 2

Inflow Area = 0.422 ac, 30.98% Impervious, Inflow Depth = 1.18" for 1-yr event  
Inflow = 0.62 cfs @ 12.06 hrs, Volume= 0.041 af  
Outflow = 0.62 cfs @ 12.06 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL2: Design Line 2

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Pond 1.1P:

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 1.99" for 1-yr event  
Inflow = 0.54 cfs @ 12.04 hrs, Volume= 0.034 af  
Outflow = 0.48 cfs @ 12.06 hrs, Volume= 0.034 af, Atten= 13%, Lag= 1.2 min  
Discarded = 0.48 cfs @ 12.06 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
Peak Elev= 562.75' @ 12.08 hrs Surf.Area= 1,140 sf Storage= 21 cf

Plug-Flow detention time= 0.4 min calculated for 0.034 af (100% of inflow)  
Center-of-Mass det. time= 0.4 min ( 806.6 - 806.2 )

Volume	Invert	Avail.Storage	Storage Description
#1A	562.70'	1,268 cf	<b>25.25'W x 45.16'L x 4.00'H Field A</b> 4,561 cf Overall - 1,392 cf Embedded = 3,169 cf x 40.0% Voids
#2A	563.70'	1,392 cf	<b>ADS_StormTech SC-740</b> x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
		2,660 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	562.70'	<b>18.000 in/hr Exfiltration over Surface area</b> Phase-In= 0.02'

**Discarded OutFlow** Max=0.48 cfs @ 12.06 hrs HW=562.74' (Free Discharge)  
↑ **1=Exfiltration** (Exfiltration Controls 0.48 cfs)



## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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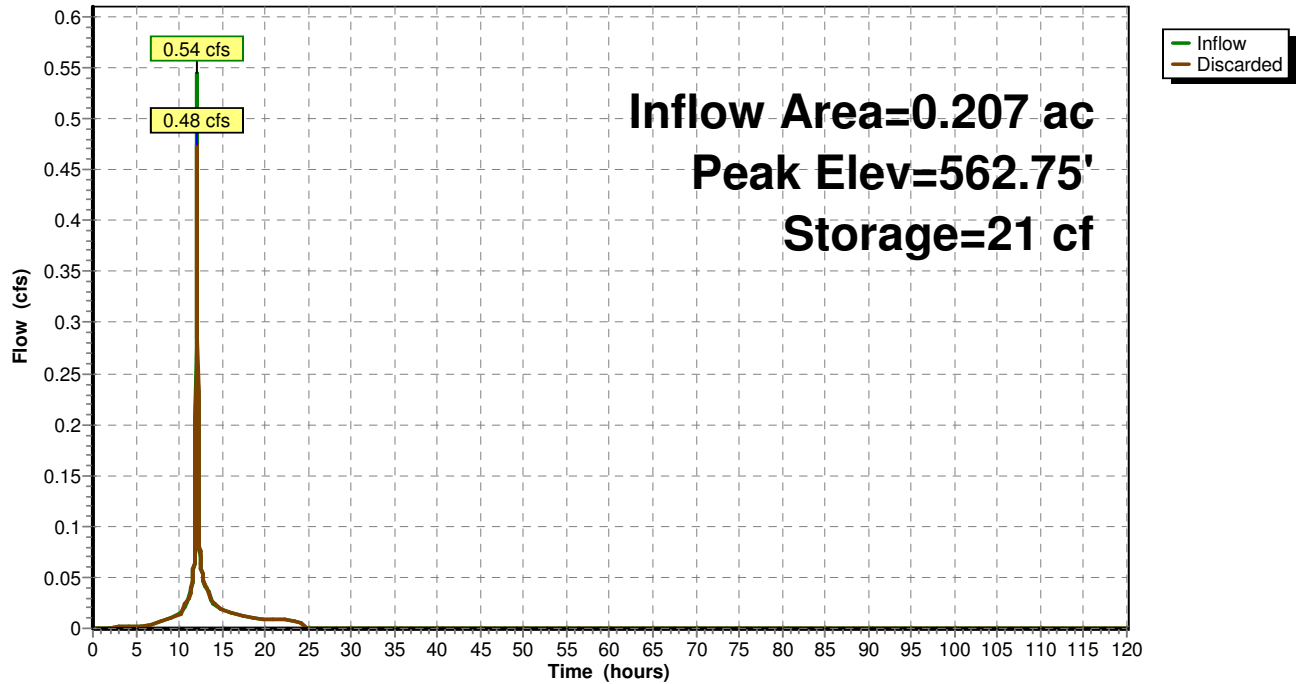
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### Pond 1.1P:

#### Hydrograph





**Post-Development**

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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**Stage-Area-Storage for Pond 1.1P:**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
562.70	1,140	0	565.30	1,140	1,860
562.75	1,140	23	565.35	1,140	1,898
562.80	1,140	46	565.40	1,140	1,936
562.85	1,140	68	565.45	1,140	1,974
562.90	1,140	91	565.50	1,140	2,010
562.95	1,140	114	565.55	1,140	2,047
563.00	1,140	137	565.60	1,140	2,082
563.05	1,140	160	565.65	1,140	2,117
563.10	1,140	182	565.70	1,140	2,152
563.15	1,140	205	565.75	1,140	2,185
563.20	1,140	228	565.80	1,140	2,218
563.25	1,140	251	565.85	1,140	2,249
563.30	1,140	274	565.90	1,140	2,279
563.35	1,140	296	565.95	1,140	2,308
563.40	1,140	319	566.00	1,140	2,335
563.45	1,140	342	566.05	1,140	2,360
563.50	1,140	365	566.10	1,140	2,385
563.55	1,140	388	566.15	1,140	2,409
563.60	1,140	411	566.20	1,140	2,432
563.65	1,140	433	566.25	1,140	2,455
563.70	1,140	456	566.30	1,140	2,477
563.75	1,140	503	566.35	1,140	2,500
563.80	1,140	550	566.40	1,140	2,523
563.85	1,140	597	566.45	1,140	2,546
563.90	1,140	643	566.50	1,140	2,569
563.95	1,140	690	566.55	1,140	2,591
564.00	1,140	736	566.60	1,140	2,614
564.05	1,140	782	566.65	1,140	2,637
564.10	1,140	828	566.70	1,140	2,660
564.15	1,140	874			
564.20	1,140	920			
564.25	1,140	966			
564.30	1,140	1,011			
564.35	1,140	1,056			
564.40	1,140	1,101			
564.45	1,140	1,145			
564.50	1,140	1,190			
564.55	1,140	1,234			
564.60	1,140	1,278			
564.65	1,140	1,322			
564.70	1,140	1,365			
564.75	1,140	1,408			
564.80	1,140	1,451			
564.85	1,140	1,493			
564.90	1,140	1,536			
564.95	1,140	1,577			
565.00	1,140	1,619			
565.05	1,140	1,660			
565.10	1,140	1,701			
565.15	1,140	1,741			
565.20	1,140	1,781			
565.25	1,140	1,820			



## Post-Development

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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### Summary for Pond FS:

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 1.99" for 1-yr event  
Inflow = 0.54 cfs @ 12.04 hrs, Volume= 0.034 af  
Outflow = 0.54 cfs @ 12.04 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min  
Primary = 0.54 cfs @ 12.04 hrs, Volume= 0.034 af  
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

Peak Elev= 564.33' @ 12.04 hrs

Flood Elev= 570.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	563.70'	<b>8.0" Round Culvert</b> L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 563.70' / 563.70' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	564.90'	<b>12.0" Round Culvert</b> L= 150.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 564.90' / 562.80' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

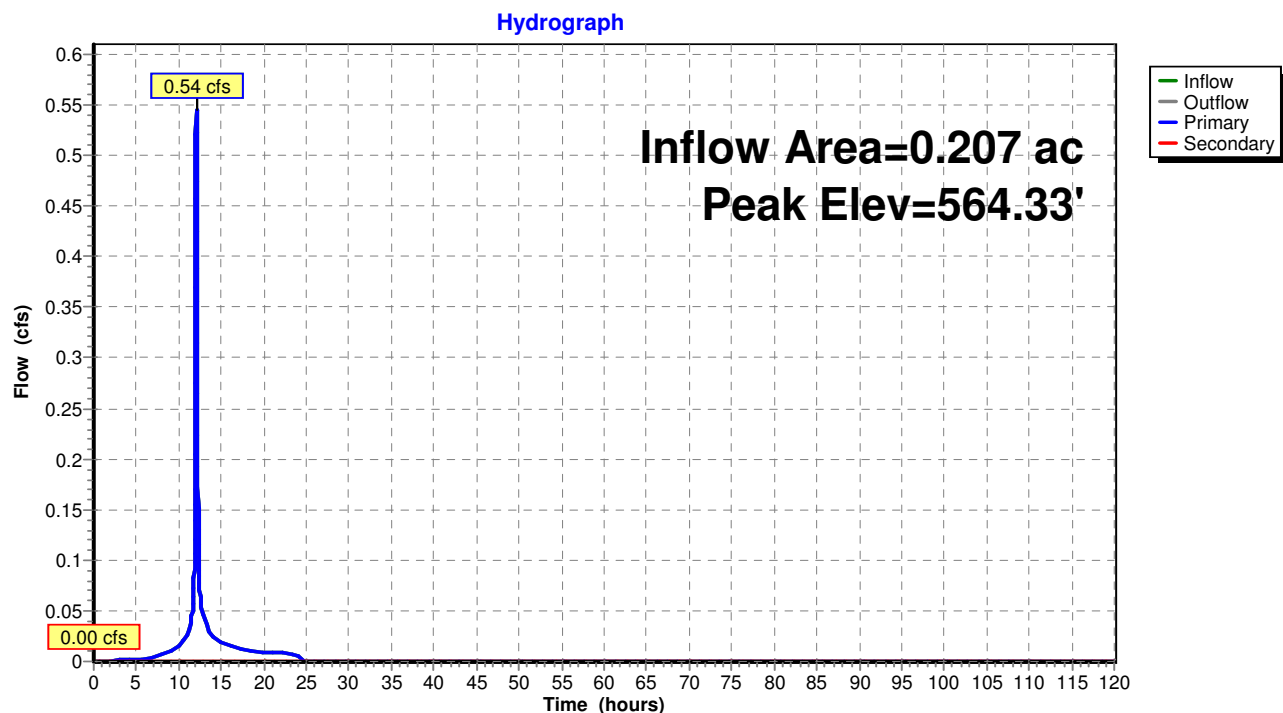
**Primary OutFlow** Max=0.54 cfs @ 12.04 hrs HW=564.33' TW=562.73' (Dynamic Tailwater)

↑**1=Culvert** (Barrel Controls 0.54 cfs @ 2.07 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=563.70' TW=0.00' (Dynamic Tailwater)

↑**2=Culvert** ( Controls 0.00 cfs)

### Pond FS:





**Post-Development**

NY-62 Mead St 24-hr S0P 1-yr Rainfall=2.82"

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**Stage-Area-Storage for Pond FS:**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
563.70	0	568.90	0
563.80	0	569.00	0
563.90	0	569.10	0
564.00	0	569.20	0
564.10	0	569.30	0
564.20	0	569.40	0
564.30	0	569.50	0
564.40	0	569.60	0
564.50	0	569.70	0
564.60	0	569.80	0
564.70	0	569.90	0
564.80	0	570.00	0
564.90	0	570.10	0
565.00	0	570.20	0
565.10	0		
565.20	0		
565.30	0		
565.40	0		
565.50	0		
565.60	0		
565.70	0		
565.80	0		
565.90	0		
566.00	0		
566.10	0		
566.20	0		
566.30	0		
566.40	0		
566.50	0		
566.60	0		
566.70	0		
566.80	0		
566.90	0		
567.00	0		
567.10	0		
567.20	0		
567.30	0		
567.40	0		
567.50	0		
567.60	0		
567.70	0		
567.80	0		
567.90	0		
568.00	0		
568.10	0		
568.20	0		
568.30	0		
568.40	0		
568.50	0		
568.60	0		
568.70	0		
568.80	0		



## Post-Development

NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

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### Summary for Subcatchment 1.1S-NG: Post New Impervious & Grass

Runoff = 0.74 cfs @ 12.04 hrs, Volume= 0.053 af, Depth= 3.94"

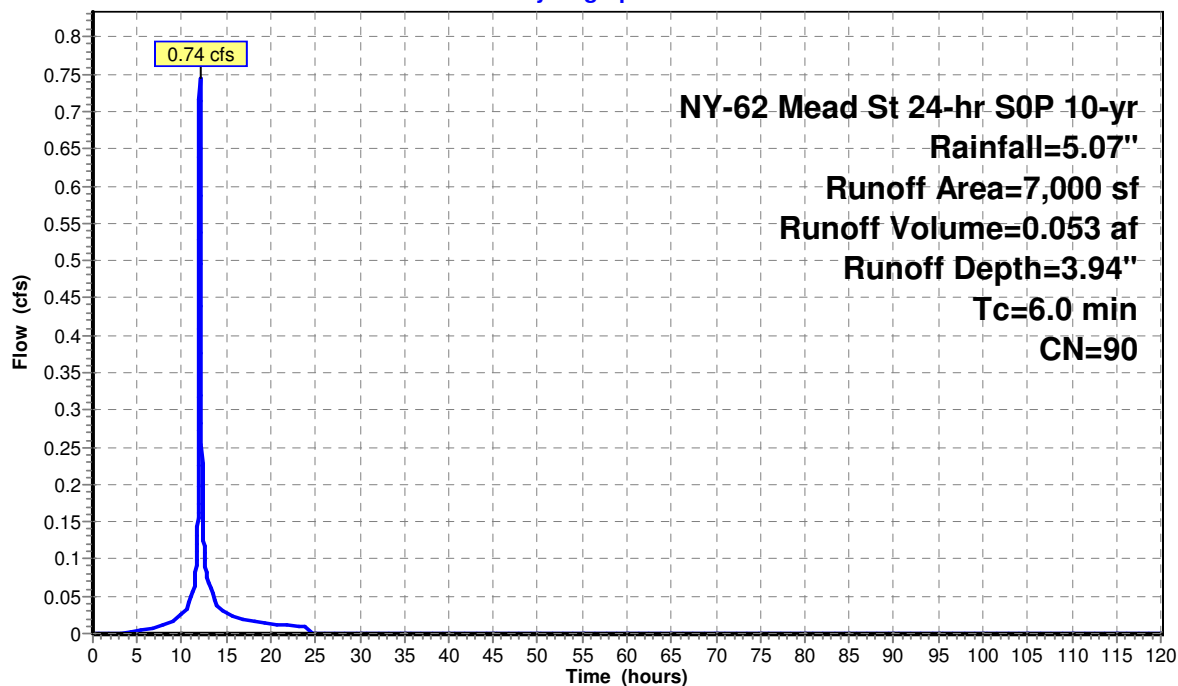
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

Area (sf)	CN	Description
4,800	98	Paved parking, HSG C
2,200	74	>75% Grass cover, Good, HSG C
7,000	90	Weighted Average
2,200		31.43% Pervious Area
4,800		68.57% Impervious Area

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

### Subcatchment 1.1S-NG: Post New Impervious & Grass

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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### Summary for Subcatchment 1.1S-R: Post Redeveloped Impervious

Runoff = 0.24 cfs @ 12.04 hrs, Volume= 0.018 af, Depth= 4.83"

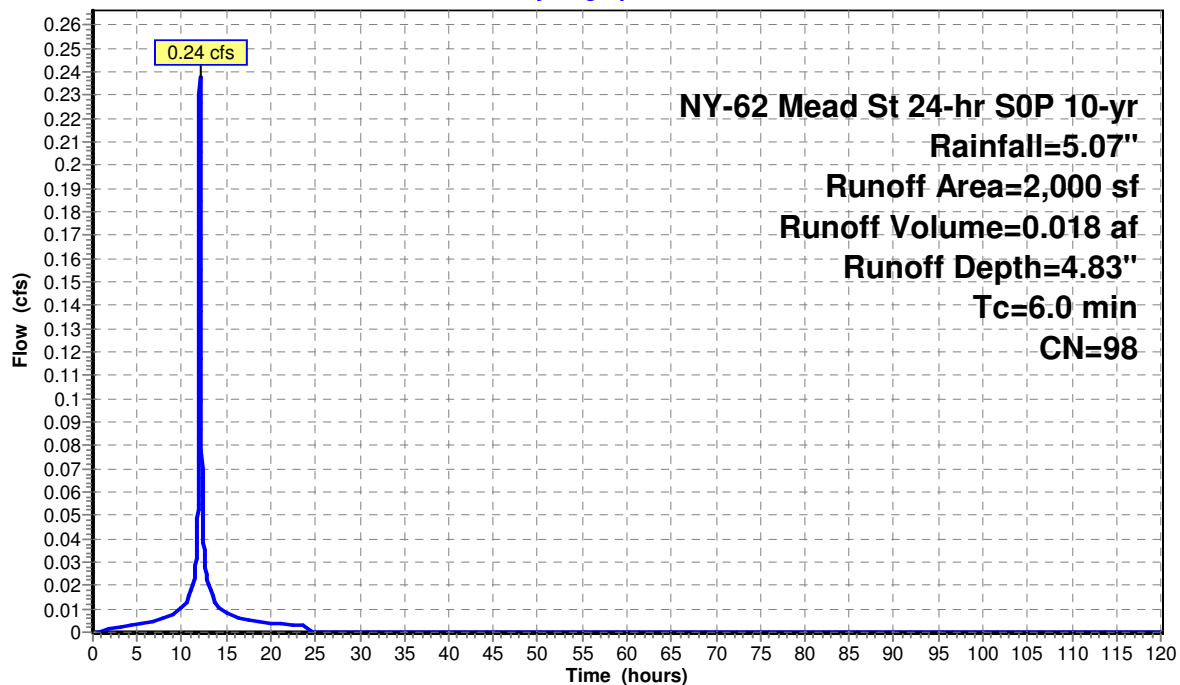
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

Area (sf)	CN	Description
2,000	98	Paved parking, HSG C
2,000		100.00% Impervious Area

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

### Subcatchment 1.1S-R: Post Redeveloped Impervious

Hydrograph





## Post-Development

NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

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### Summary for Subcatchment 1.2S:

Runoff = 2.66 cfs @ 12.07 hrs, Volume= 0.199 af, Depth= 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

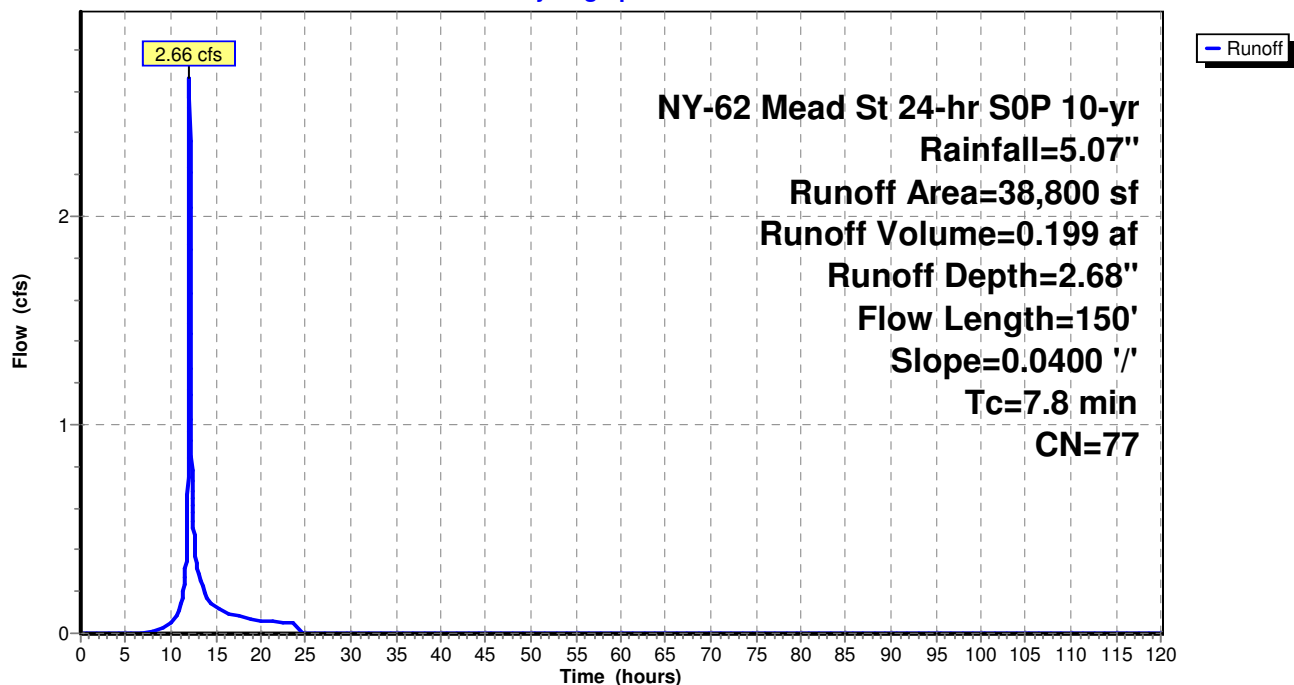
Area (sf)	CN	Description
1,700	98	Paved parking, HSG C
27,300	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
38,800	77	Weighted Average
37,100		95.62% Pervious Area
1,700		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

### Subcatchment 1.2S:

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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### Summary for Subcatchment 2.1S:

Runoff = 1.46 cfs @ 12.06 hrs, Volume= 0.107 af, Depth= 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

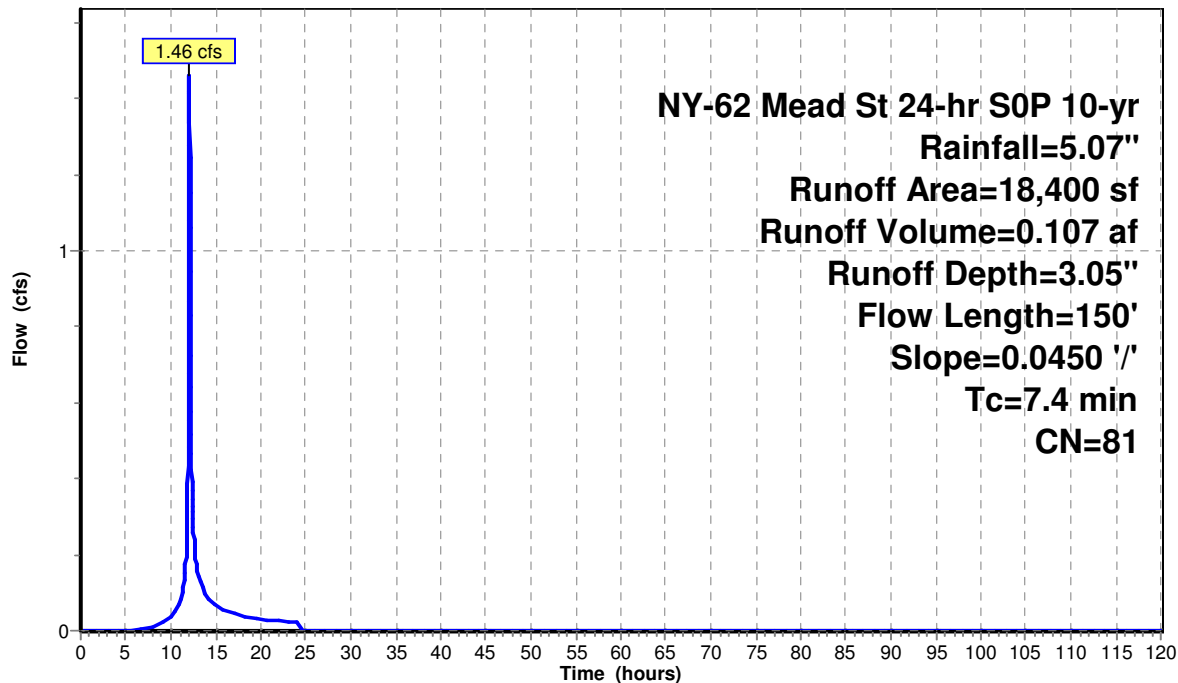
Area (sf)	CN	Description
5,700	98	Paved parking, HSG C
12,700	74	>75% Grass cover, Good, HSG C
18,400	81	Weighted Average
12,700		69.02% Pervious Area
5,700		30.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.1S:

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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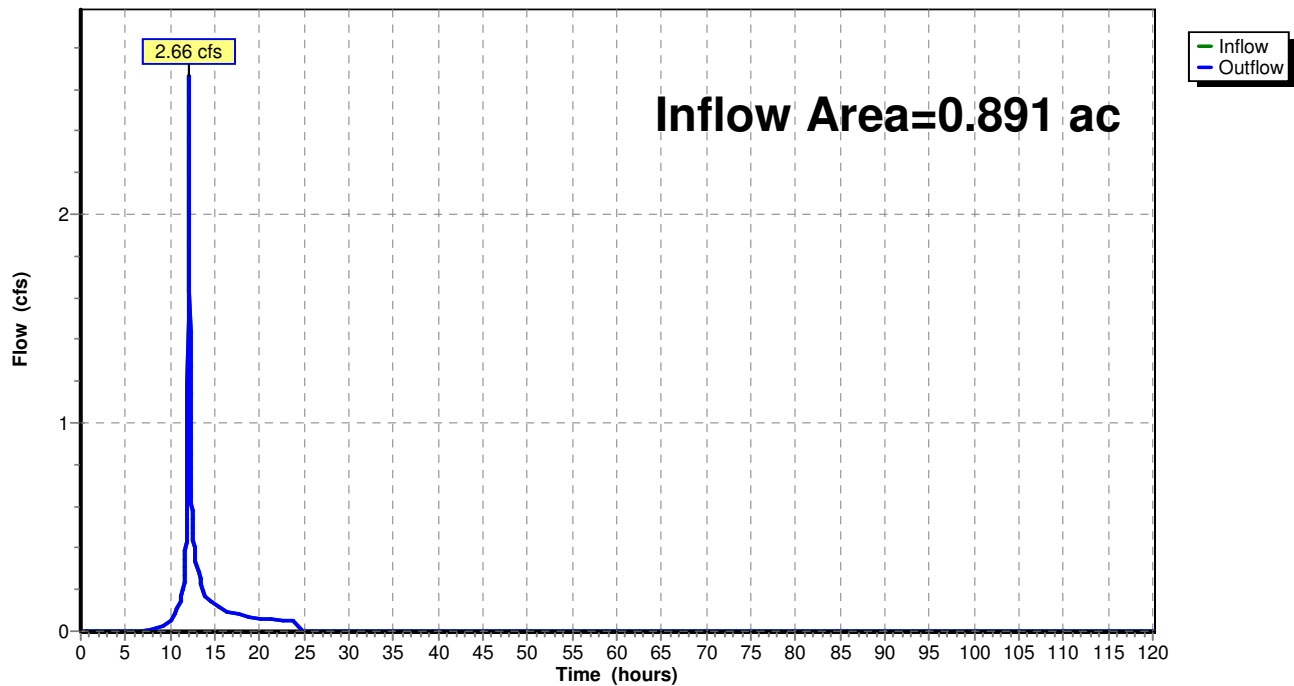
### Summary for Reach DL1: Design Line 1

Inflow Area = 0.891 ac, 4.38% Impervious, Inflow Depth = 2.68" for 10-yr event  
Inflow = 2.66 cfs @ 12.07 hrs, Volume= 0.199 af  
Outflow = 2.66 cfs @ 12.07 hrs, Volume= 0.199 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL1: Design Line 1

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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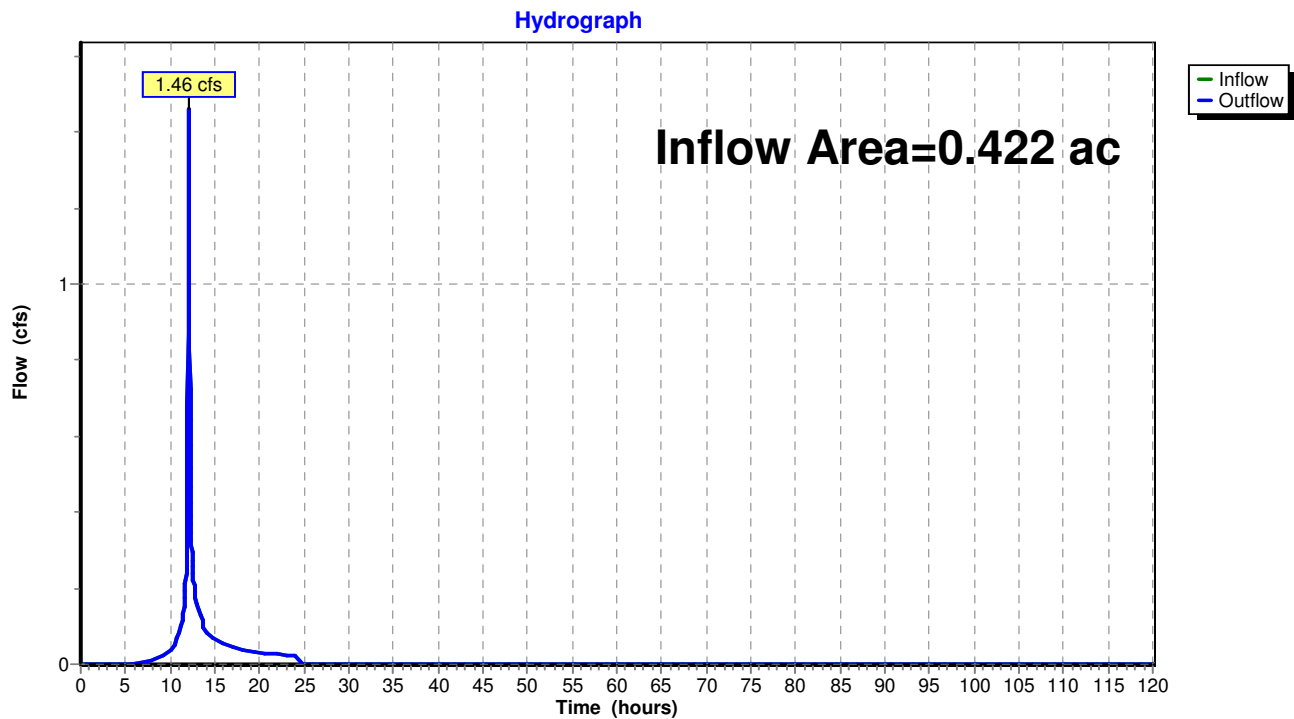
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### Summary for Reach DL2: Design Line 2

Inflow Area = 0.422 ac, 30.98% Impervious, Inflow Depth = 3.05" for 10-yr event  
Inflow = 1.46 cfs @ 12.06 hrs, Volume= 0.107 af  
Outflow = 1.46 cfs @ 12.06 hrs, Volume= 0.107 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL2: Design Line 2





## Post-Development

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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### Summary for Pond 1.1P:

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 4.14" for 10-yr event  
Inflow = 0.98 cfs @ 12.04 hrs, Volume= 0.071 af  
Outflow = 0.48 cfs @ 11.98 hrs, Volume= 0.071 af, Atten= 52%, Lag= 0.0 min  
Discarded = 0.48 cfs @ 11.98 hrs, Volume= 0.071 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
Peak Elev= 563.24' @ 12.19 hrs Surf.Area= 1,140 sf Storage= 246 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)  
Center-of-Mass det. time= 1.7 min ( 786.4 - 784.7 )

Volume	Invert	Avail.Storage	Storage Description
#1A	562.70'	1,268 cf	<b>25.25'W x 45.16'L x 4.00'H Field A</b> 4,561 cf Overall - 1,392 cf Embedded = 3,169 cf x 40.0% Voids
#2A	563.70'	1,392 cf	<b>ADS_StormTech SC-740</b> x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
		2,660 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	562.70'	<b>18.000 in/hr Exfiltration over Surface area</b> Phase-In= 0.02'

**Discarded OutFlow** Max=0.48 cfs @ 11.98 hrs HW=562.75' (Free Discharge)  
↑**1=Exfiltration** (Exfiltration Controls 0.48 cfs)



## Post-Development

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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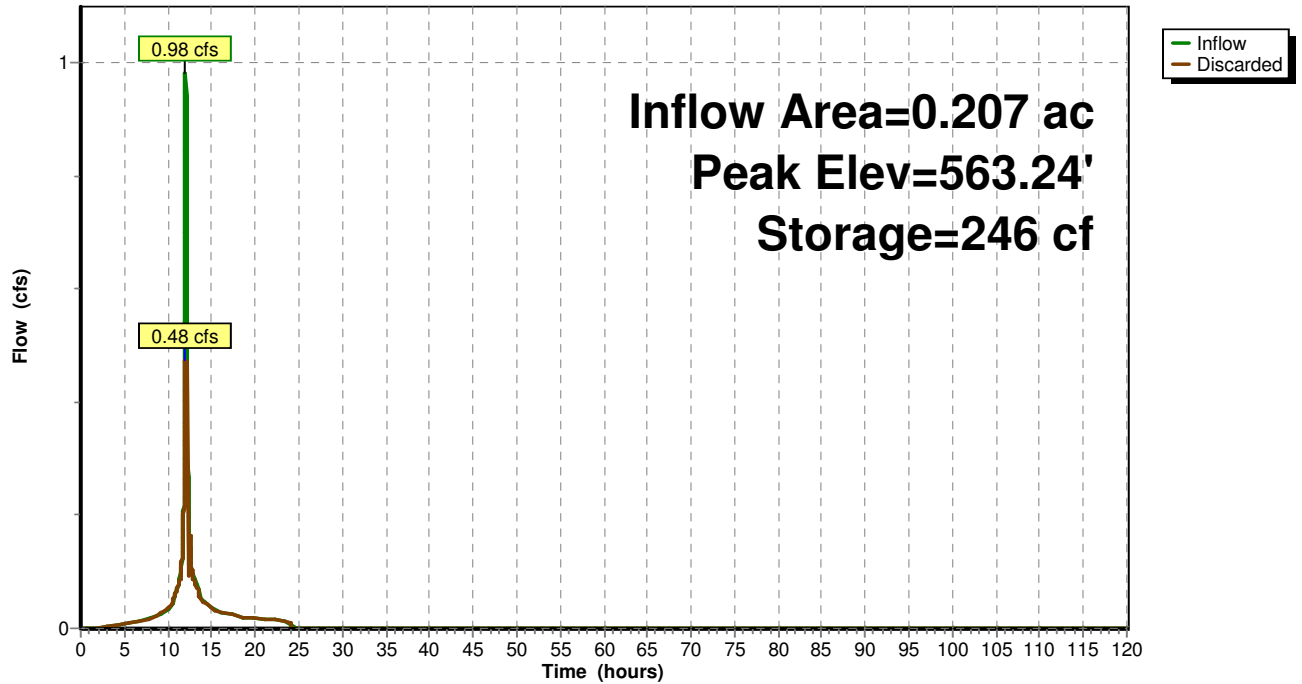
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### Pond 1.1P:

Hydrograph





**Post-Development**

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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**Stage-Area-Storage for Pond 1.1P:**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
562.70	1,140	0	565.30	1,140	1,860
562.75	1,140	23	565.35	1,140	1,898
562.80	1,140	46	565.40	1,140	1,936
562.85	1,140	68	565.45	1,140	1,974
562.90	1,140	91	565.50	1,140	2,010
562.95	1,140	114	565.55	1,140	2,047
563.00	1,140	137	565.60	1,140	2,082
563.05	1,140	160	565.65	1,140	2,117
563.10	1,140	182	565.70	1,140	2,152
563.15	1,140	205	565.75	1,140	2,185
563.20	1,140	228	565.80	1,140	2,218
563.25	1,140	251	565.85	1,140	2,249
563.30	1,140	274	565.90	1,140	2,279
563.35	1,140	296	565.95	1,140	2,308
563.40	1,140	319	566.00	1,140	2,335
563.45	1,140	342	566.05	1,140	2,360
563.50	1,140	365	566.10	1,140	2,385
563.55	1,140	388	566.15	1,140	2,409
563.60	1,140	411	566.20	1,140	2,432
563.65	1,140	433	566.25	1,140	2,455
563.70	1,140	456	566.30	1,140	2,477
563.75	1,140	503	566.35	1,140	2,500
563.80	1,140	550	566.40	1,140	2,523
563.85	1,140	597	566.45	1,140	2,546
563.90	1,140	643	566.50	1,140	2,569
563.95	1,140	690	566.55	1,140	2,591
564.00	1,140	736	566.60	1,140	2,614
564.05	1,140	782	566.65	1,140	2,637
564.10	1,140	828	566.70	1,140	2,660
564.15	1,140	874			
564.20	1,140	920			
564.25	1,140	966			
564.30	1,140	1,011			
564.35	1,140	1,056			
564.40	1,140	1,101			
564.45	1,140	1,145			
564.50	1,140	1,190			
564.55	1,140	1,234			
564.60	1,140	1,278			
564.65	1,140	1,322			
564.70	1,140	1,365			
564.75	1,140	1,408			
564.80	1,140	1,451			
564.85	1,140	1,493			
564.90	1,140	1,536			
564.95	1,140	1,577			
565.00	1,140	1,619			
565.05	1,140	1,660			
565.10	1,140	1,701			
565.15	1,140	1,741			
565.20	1,140	1,781			
565.25	1,140	1,820			



## Post-Development

NY-62 Mead St 24-hr S0P 10-yr Rainfall=5.07"

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### Summary for Pond FS:

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 4.14" for 10-yr event  
Inflow = 0.98 cfs @ 12.04 hrs, Volume= 0.071 af  
Outflow = 0.98 cfs @ 12.04 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min  
Primary = 0.98 cfs @ 12.04 hrs, Volume= 0.071 af  
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

Peak Elev= 564.68' @ 12.04 hrs

Flood Elev= 570.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	563.70'	<b>8.0" Round Culvert</b> L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 563.70' / 563.70' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	564.90'	<b>12.0" Round Culvert</b> L= 150.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 564.90' / 562.80' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

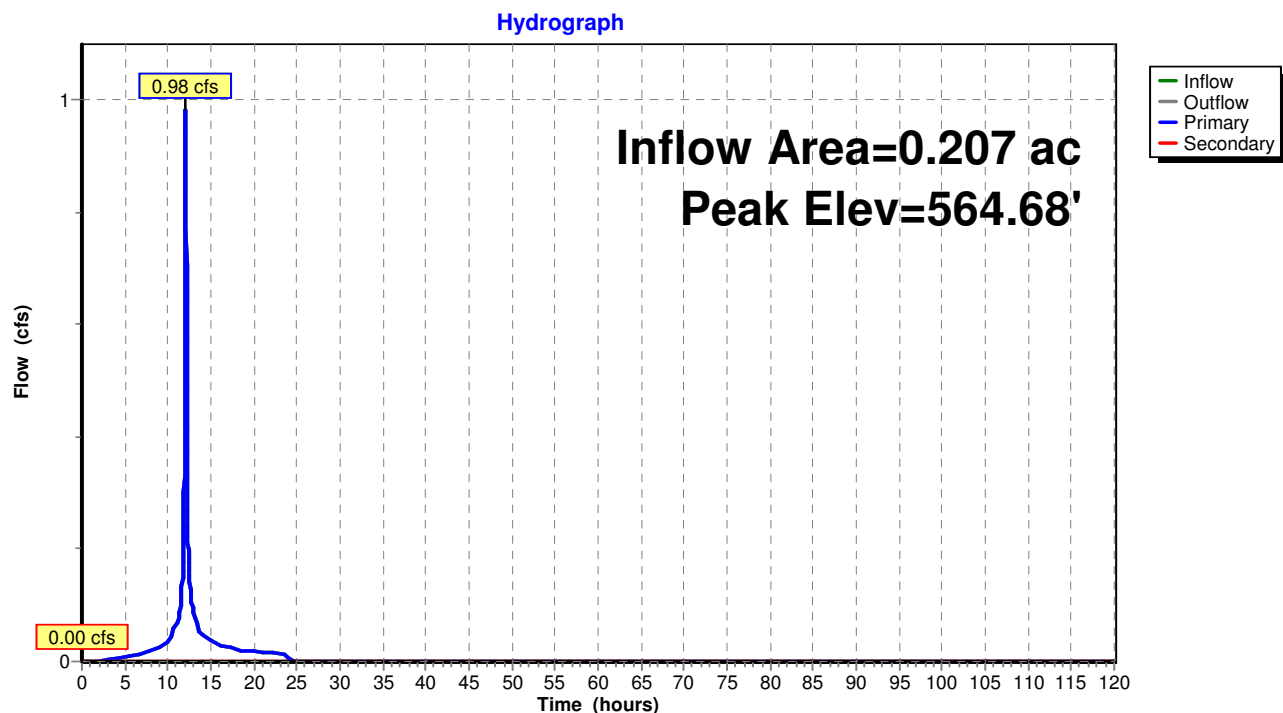
**Primary OutFlow** Max=0.98 cfs @ 12.04 hrs HW=564.68' TW=562.93' (Dynamic Tailwater)

↑**1=Culvert** (Barrel Controls 0.98 cfs @ 2.81 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=563.70' TW=0.00' (Dynamic Tailwater)

↑**2=Culvert** ( Controls 0.00 cfs)

### Pond FS:





**Post-Development**

NY-62 Mead St 24-hr SOP 10-yr Rainfall=5.07"

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**Stage-Area-Storage for Pond FS:**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
563.70	0	568.90	0
563.80	0	569.00	0
563.90	0	569.10	0
564.00	0	569.20	0
564.10	0	569.30	0
564.20	0	569.40	0
564.30	0	569.50	0
564.40	0	569.60	0
564.50	0	569.70	0
564.60	0	569.80	0
564.70	0	569.90	0
564.80	0	570.00	0
564.90	0	570.10	0
565.00	0	570.20	0
565.10	0		
565.20	0		
565.30	0		
565.40	0		
565.50	0		
565.60	0		
565.70	0		
565.80	0		
565.90	0		
566.00	0		
566.10	0		
566.20	0		
566.30	0		
566.40	0		
566.50	0		
566.60	0		
566.70	0		
566.80	0		
566.90	0		
567.00	0		
567.10	0		
567.20	0		
567.30	0		
567.40	0		
567.50	0		
567.60	0		
567.70	0		
567.80	0		
567.90	0		
568.00	0		
568.10	0		
568.20	0		
568.30	0		
568.40	0		
568.50	0		
568.60	0		
568.70	0		
568.80	0		



## Post-Development

NY-62 Mead St 24-hr SOP 25-yr Rainfall=6.38"

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### Summary for Subcatchment 1.1S-NG: Post New Impervious & Grass

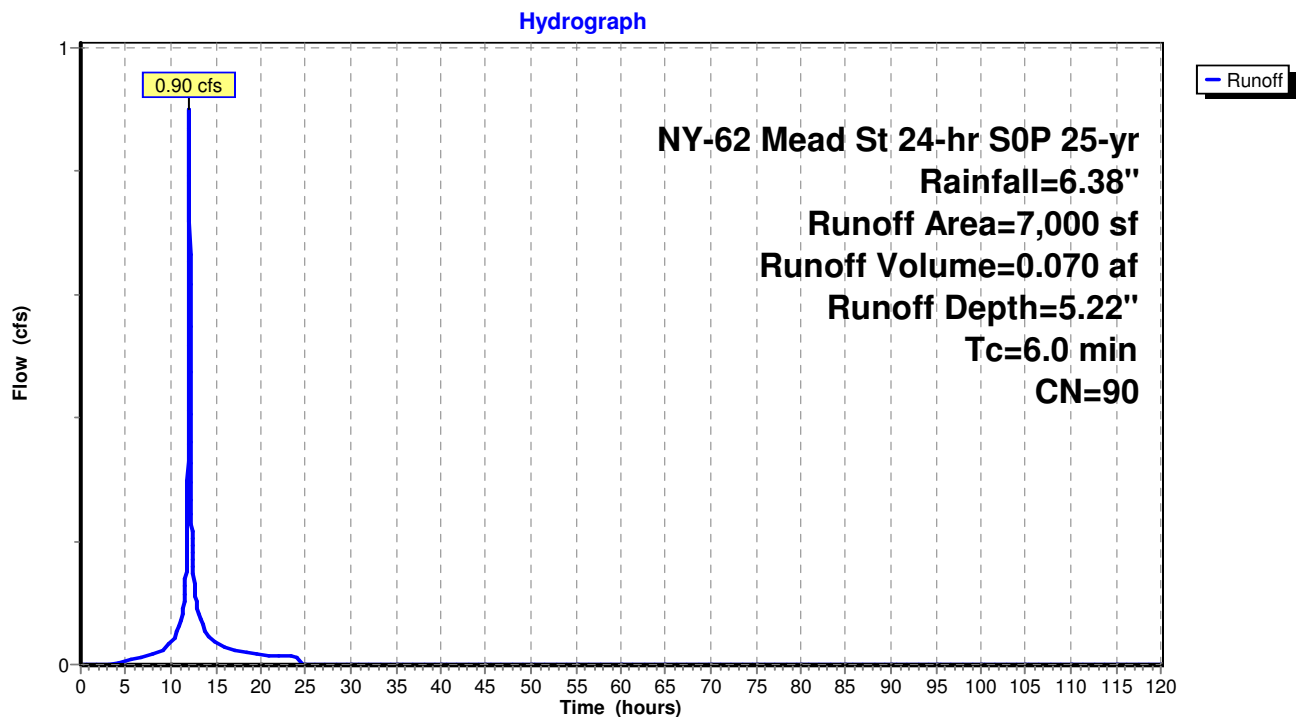
Runoff = 0.90 cfs @ 12.04 hrs, Volume= 0.070 af, Depth= 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 25-yr Rainfall=6.38"

Area (sf)	CN	Description
4,800	98	Paved parking, HSG C
2,200	74	>75% Grass cover, Good, HSG C
7,000	90	Weighted Average
2,200		31.43% Pervious Area
4,800		68.57% Impervious Area

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

### Subcatchment 1.1S-NG: Post New Impervious & Grass





## Post-Development

NY-62 Mead St 24-hr SOP 25-yr Rainfall=6.38"

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### Summary for Subcatchment 1.1S-R: Post Redeveloped Impervious

Runoff = 0.28 cfs @ 12.04 hrs, Volume= 0.023 af, Depth= 6.14"

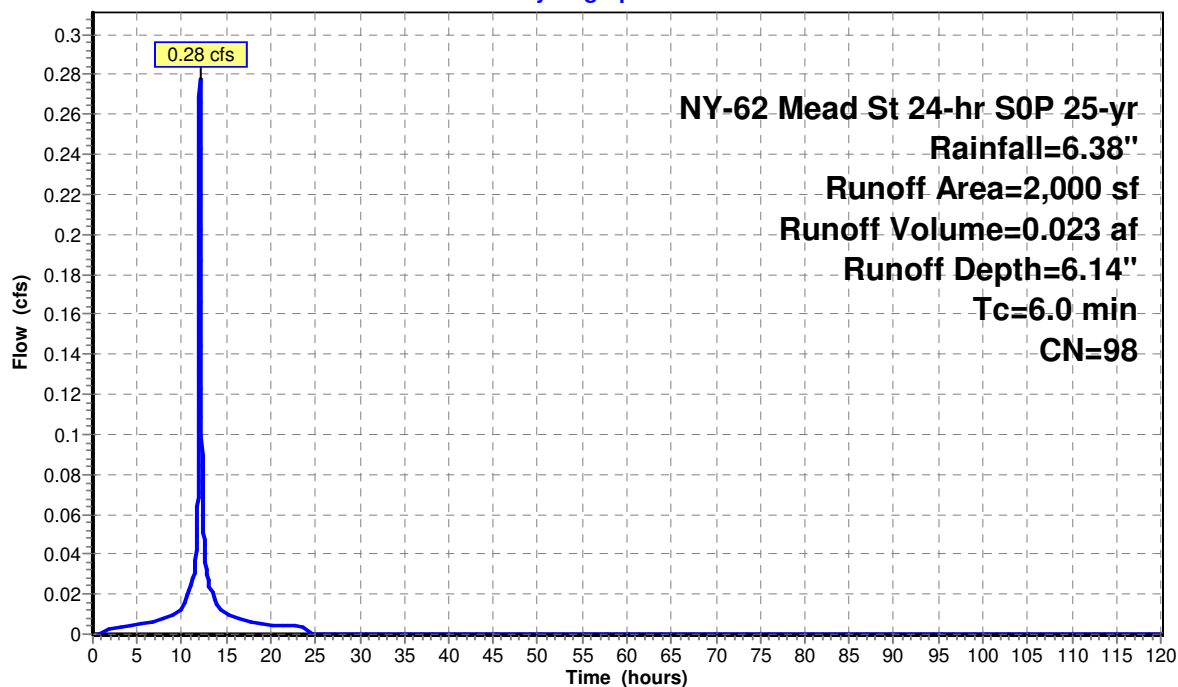
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 25-yr Rainfall=6.38"

Area (sf)	CN	Description
2,000	98	Paved parking, HSG C
2,000		100.00% Impervious Area

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

### Subcatchment 1.1S-R: Post Redeveloped Impervious

Hydrograph





## Post-Development

NY-62 Mead St 24-hr SOP 25-yr Rainfall=6.38"

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### Summary for Subcatchment 1.2S:

Runoff = 3.53 cfs @ 12.07 hrs, Volume= 0.283 af, Depth= 3.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 25-yr Rainfall=6.38"

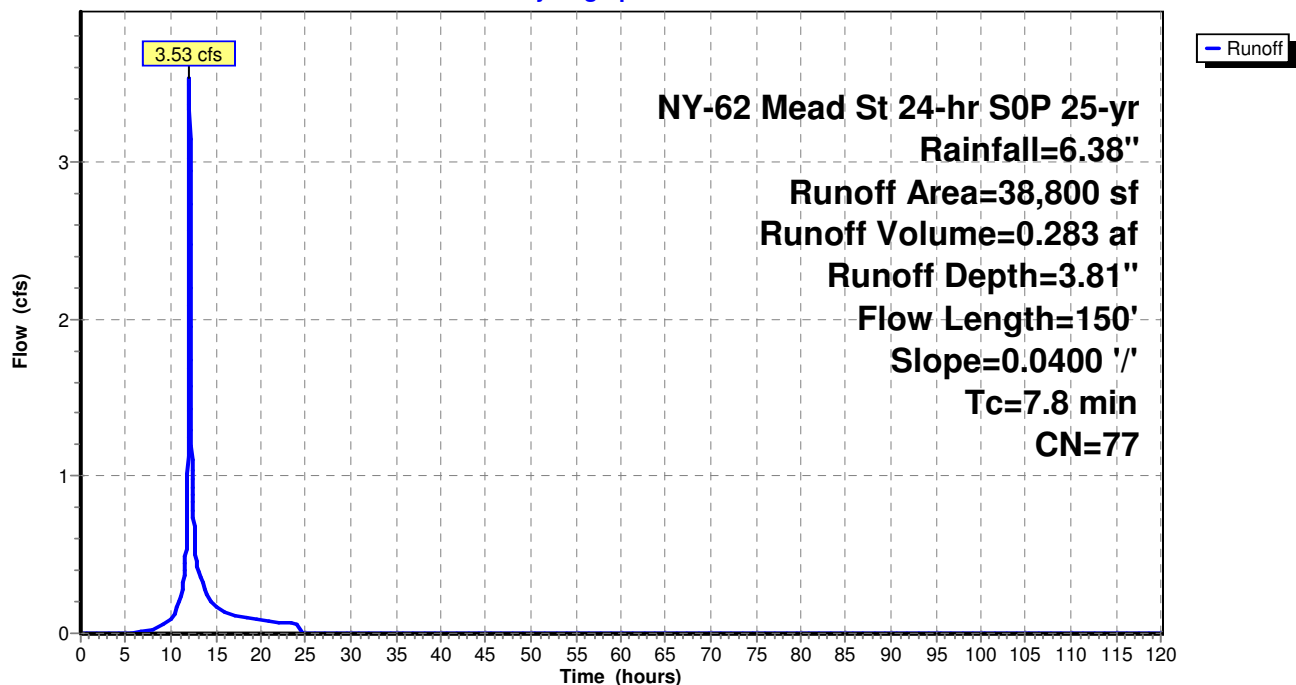
Area (sf)	CN	Description
1,700	98	Paved parking, HSG C
27,300	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
38,800	77	Weighted Average
37,100		95.62% Pervious Area
1,700		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

### Subcatchment 1.2S:

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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### Summary for Subcatchment 2.1S:

Runoff = 1.88 cfs @ 12.06 hrs, Volume= 0.149 af, Depth= 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

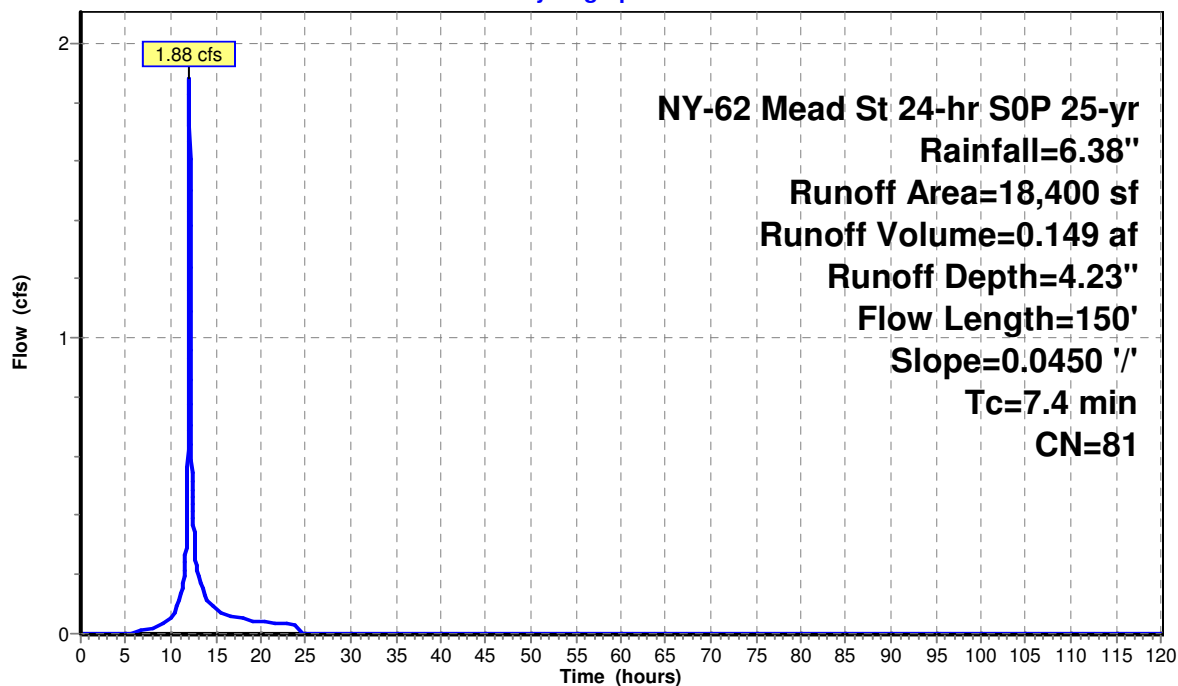
Area (sf)	CN	Description
5,700	98	Paved parking, HSG C
12,700	74	>75% Grass cover, Good, HSG C
18,400	81	Weighted Average
12,700		69.02% Pervious Area
5,700		30.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.1S:

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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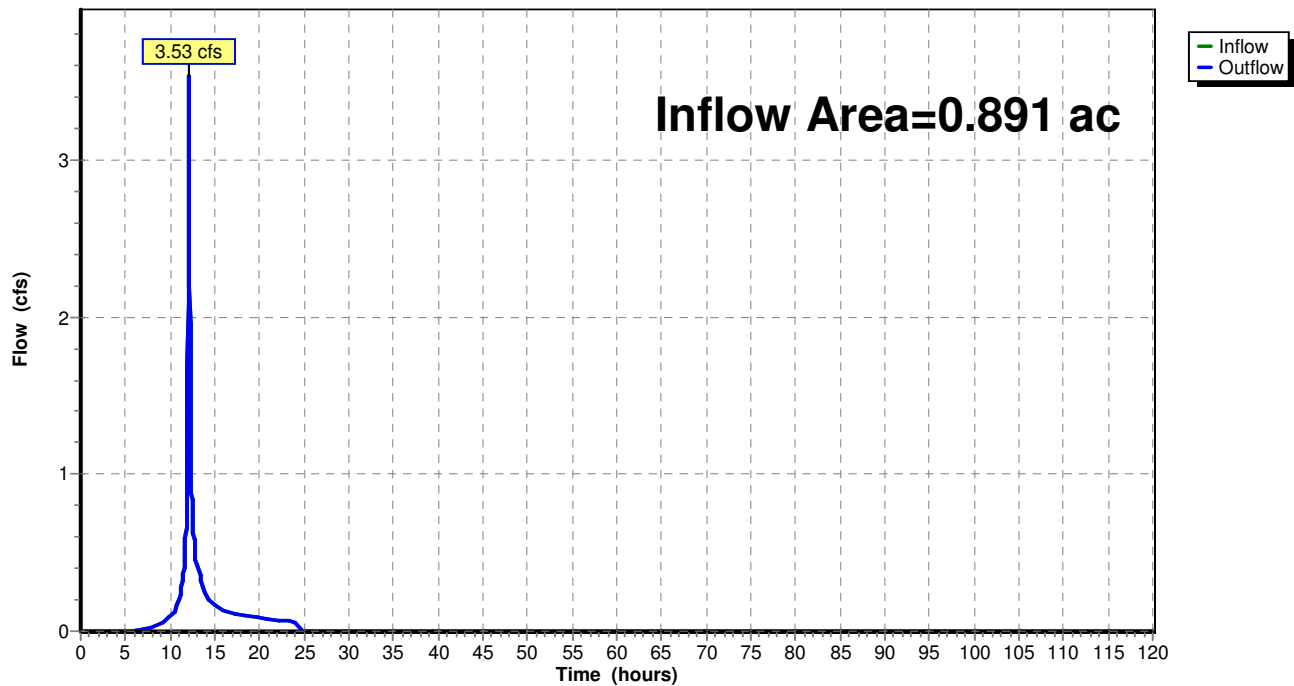
### Summary for Reach DL1: Design Line 1

Inflow Area = 0.891 ac, 4.38% Impervious, Inflow Depth = 3.81" for 25-yr event  
Inflow = 3.53 cfs @ 12.07 hrs, Volume= 0.283 af  
Outflow = 3.53 cfs @ 12.07 hrs, Volume= 0.283 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL1: Design Line 1

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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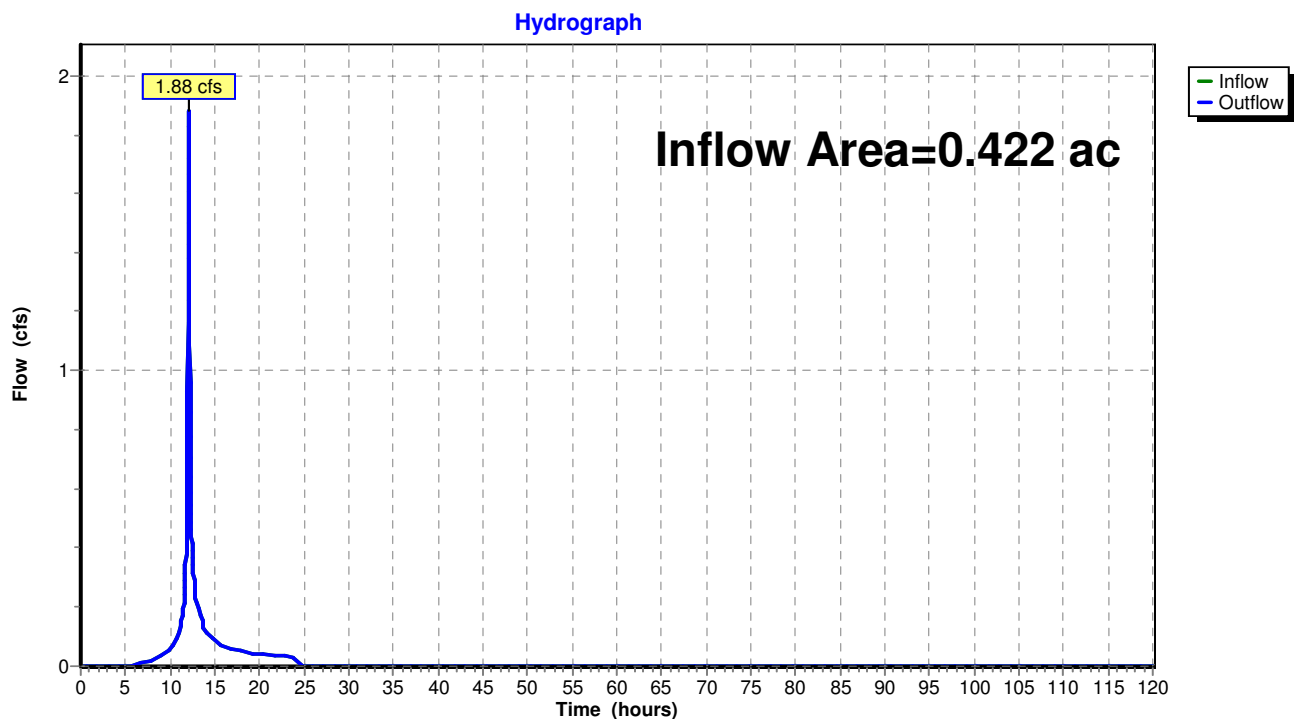
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### Summary for Reach DL2: Design Line 2

Inflow Area = 0.422 ac, 30.98% Impervious, Inflow Depth = 4.23" for 25-yr event  
Inflow = 1.88 cfs @ 12.06 hrs, Volume= 0.149 af  
Outflow = 1.88 cfs @ 12.06 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL2: Design Line 2





## Post-Development

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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### Summary for Pond 1.1P:

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 5.42" for 25-yr event  
Inflow = 1.18 cfs @ 12.04 hrs, Volume= 0.093 af  
Outflow = 0.48 cfs @ 11.96 hrs, Volume= 0.093 af, Atten= 60%, Lag= 0.0 min  
Discarded = 0.48 cfs @ 11.96 hrs, Volume= 0.093 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
Peak Elev= 563.57' @ 12.22 hrs Surf.Area= 1,140 sf Storage= 397 cf

Plug-Flow detention time= 2.8 min calculated for 0.093 af (100% of inflow)  
Center-of-Mass det. time= 2.8 min ( 780.1 - 777.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	562.70'	1,268 cf	<b>25.25'W x 45.16'L x 4.00'H Field A</b> 4,561 cf Overall - 1,392 cf Embedded = 3,169 cf x 40.0% Voids
#2A	563.70'	1,392 cf	<b>ADS_StormTech SC-740</b> x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
		2,660 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	562.70'	<b>18.000 in/hr Exfiltration over Surface area</b> Phase-In= 0.02'

**Discarded OutFlow** Max=0.48 cfs @ 11.96 hrs HW=562.75' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.48 cfs)



## Post-Development

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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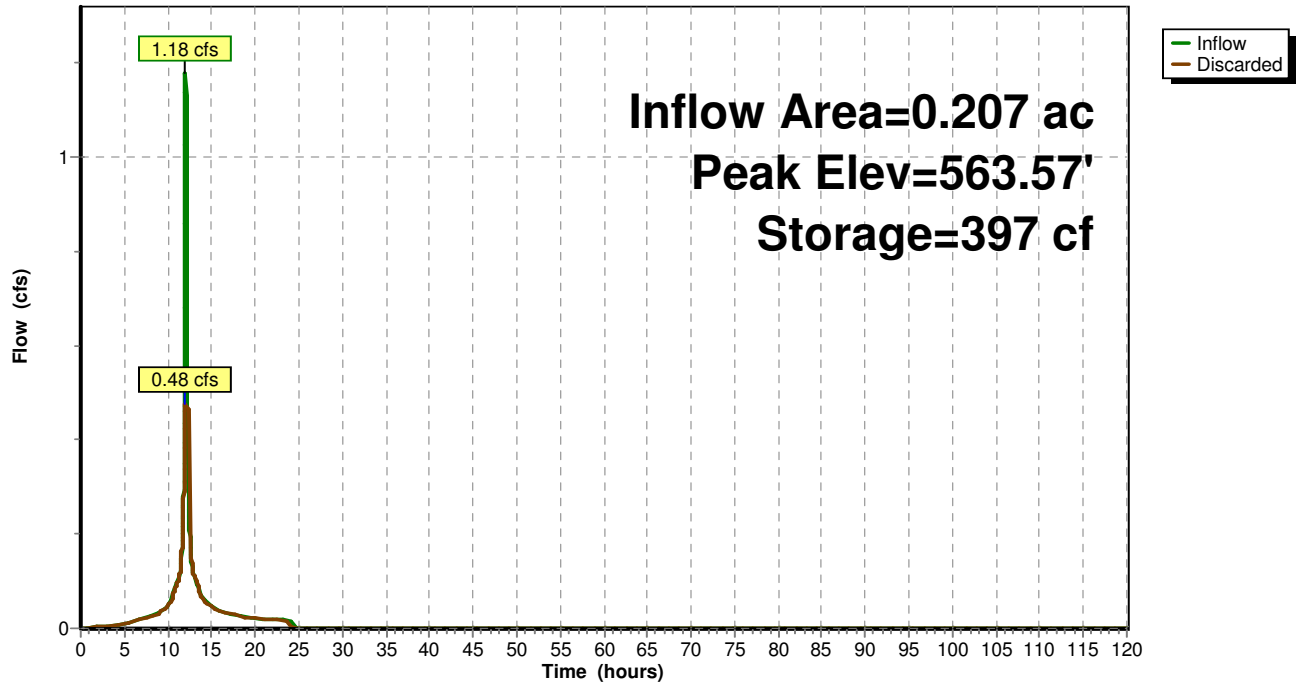
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### Pond 1.1P:

Hydrograph





**Post-Development**

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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**Stage-Area-Storage for Pond 1.1P:**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
562.70	1,140	0	565.30	1,140	1,860
562.75	1,140	23	565.35	1,140	1,898
562.80	1,140	46	565.40	1,140	1,936
562.85	1,140	68	565.45	1,140	1,974
562.90	1,140	91	565.50	1,140	2,010
562.95	1,140	114	565.55	1,140	2,047
563.00	1,140	137	565.60	1,140	2,082
563.05	1,140	160	565.65	1,140	2,117
563.10	1,140	182	565.70	1,140	2,152
563.15	1,140	205	565.75	1,140	2,185
563.20	1,140	228	565.80	1,140	2,218
563.25	1,140	251	565.85	1,140	2,249
563.30	1,140	274	565.90	1,140	2,279
563.35	1,140	296	565.95	1,140	2,308
563.40	1,140	319	566.00	1,140	2,335
563.45	1,140	342	566.05	1,140	2,360
563.50	1,140	365	566.10	1,140	2,385
563.55	1,140	388	566.15	1,140	2,409
563.60	1,140	411	566.20	1,140	2,432
563.65	1,140	433	566.25	1,140	2,455
563.70	1,140	456	566.30	1,140	2,477
563.75	1,140	503	566.35	1,140	2,500
563.80	1,140	550	566.40	1,140	2,523
563.85	1,140	597	566.45	1,140	2,546
563.90	1,140	643	566.50	1,140	2,569
563.95	1,140	690	566.55	1,140	2,591
564.00	1,140	736	566.60	1,140	2,614
564.05	1,140	782	566.65	1,140	2,637
564.10	1,140	828	566.70	1,140	2,660
564.15	1,140	874			
564.20	1,140	920			
564.25	1,140	966			
564.30	1,140	1,011			
564.35	1,140	1,056			
564.40	1,140	1,101			
564.45	1,140	1,145			
564.50	1,140	1,190			
564.55	1,140	1,234			
564.60	1,140	1,278			
564.65	1,140	1,322			
564.70	1,140	1,365			
564.75	1,140	1,408			
564.80	1,140	1,451			
564.85	1,140	1,493			
564.90	1,140	1,536			
564.95	1,140	1,577			
565.00	1,140	1,619			
565.05	1,140	1,660			
565.10	1,140	1,701			
565.15	1,140	1,741			
565.20	1,140	1,781			
565.25	1,140	1,820			



## Post-Development

NY-62 Mead St 24-hr S0P 25-yr Rainfall=6.38"

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### Summary for Pond FS:

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 5.42" for 25-yr event  
Inflow = 1.18 cfs @ 12.04 hrs, Volume= 0.093 af  
Outflow = 1.18 cfs @ 12.04 hrs, Volume= 0.093 af, Atten= 0%, Lag= 0.0 min  
Primary = 1.18 cfs @ 12.04 hrs, Volume= 0.093 af  
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

Peak Elev= 564.82' @ 12.04 hrs

Flood Elev= 570.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	563.70'	<b>8.0" Round Culvert</b> L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 563.70' / 563.70' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	564.90'	<b>12.0" Round Culvert</b> L= 150.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 564.90' / 562.80' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

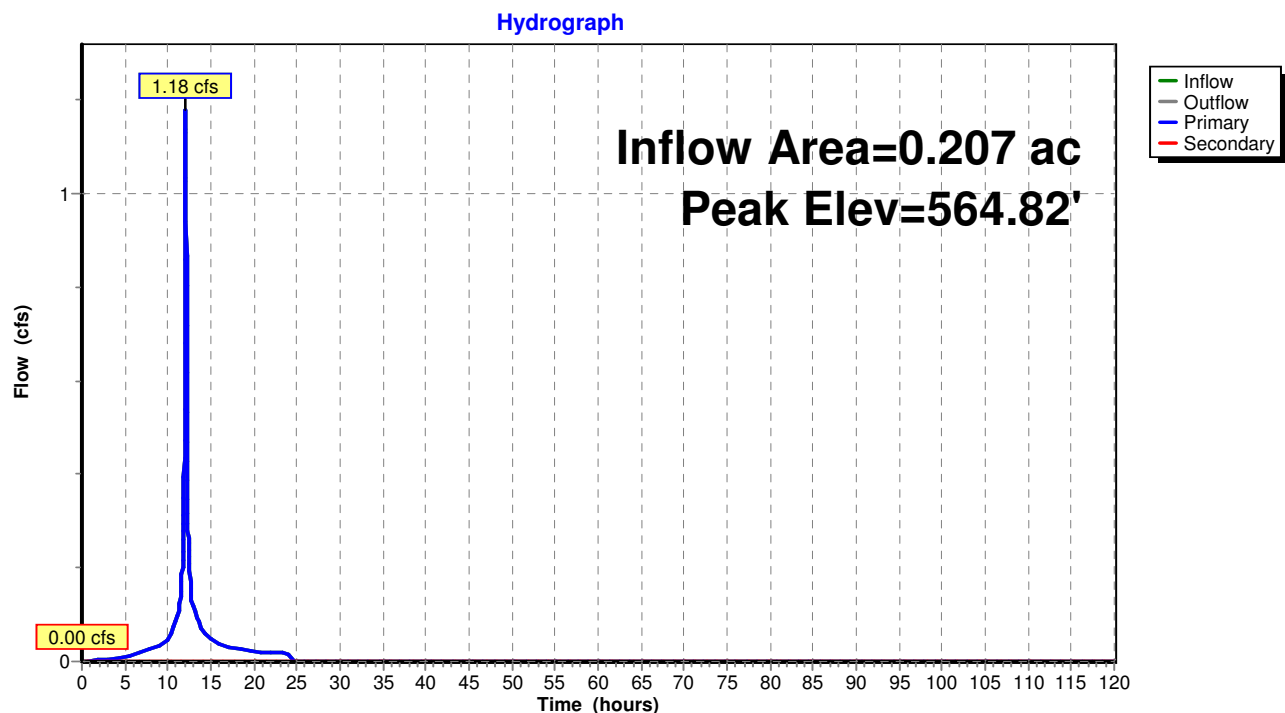
**Primary OutFlow** Max=1.18 cfs @ 12.04 hrs HW=564.82' TW=563.06' (Dynamic Tailwater)

↑**1=Culvert** (Barrel Controls 1.18 cfs @ 3.37 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=563.70' TW=0.00' (Dynamic Tailwater)

↑**2=Culvert** ( Controls 0.00 cfs)

### Pond FS:





**Post-Development**

NY-62 Mead St 24-hr SOP 25-yr Rainfall=6.38"

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**Stage-Area-Storage for Pond FS:**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
563.70	0	568.90	0
563.80	0	569.00	0
563.90	0	569.10	0
564.00	0	569.20	0
564.10	0	569.30	0
564.20	0	569.40	0
564.30	0	569.50	0
564.40	0	569.60	0
564.50	0	569.70	0
564.60	0	569.80	0
564.70	0	569.90	0
564.80	0	570.00	0
564.90	0	570.10	0
565.00	0	570.20	0
565.10	0		
565.20	0		
565.30	0		
565.40	0		
565.50	0		
565.60	0		
565.70	0		
565.80	0		
565.90	0		
566.00	0		
566.10	0		
566.20	0		
566.30	0		
566.40	0		
566.50	0		
566.60	0		
566.70	0		
566.80	0		
566.90	0		
567.00	0		
567.10	0		
567.20	0		
567.30	0		
567.40	0		
567.50	0		
567.60	0		
567.70	0		
567.80	0		
567.90	0		
568.00	0		
568.10	0		
568.20	0		
568.30	0		
568.40	0		
568.50	0		
568.60	0		
568.70	0		
568.80	0		



## Post-Development

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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### Summary for Subcatchment 1.1S-NG: Post New Impervious & Grass

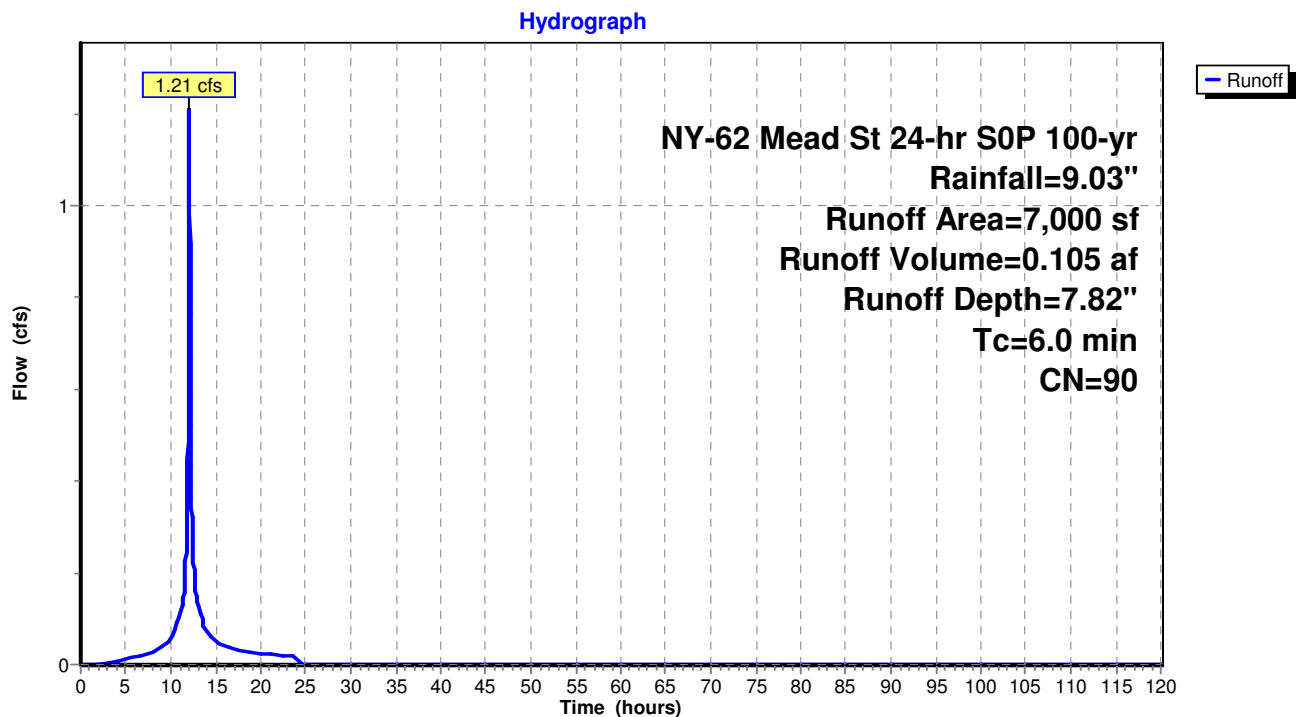
Runoff = 1.21 cfs @ 12.04 hrs, Volume= 0.105 af, Depth= 7.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

Area (sf)	CN	Description
4,800	98	Paved parking, HSG C
2,200	74	>75% Grass cover, Good, HSG C
7,000	90	Weighted Average
2,200		31.43% Pervious Area
4,800		68.57% Impervious Area

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

### Subcatchment 1.1S-NG: Post New Impervious & Grass





## Post-Development

NY-62 Mead St 24-hr SOP 100-yr Rainfall=9.03"

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### Summary for Subcatchment 1.1S-R: Post Redeveloped Impervious

Runoff = 0.36 cfs @ 12.04 hrs, Volume= 0.034 af, Depth= 8.79"

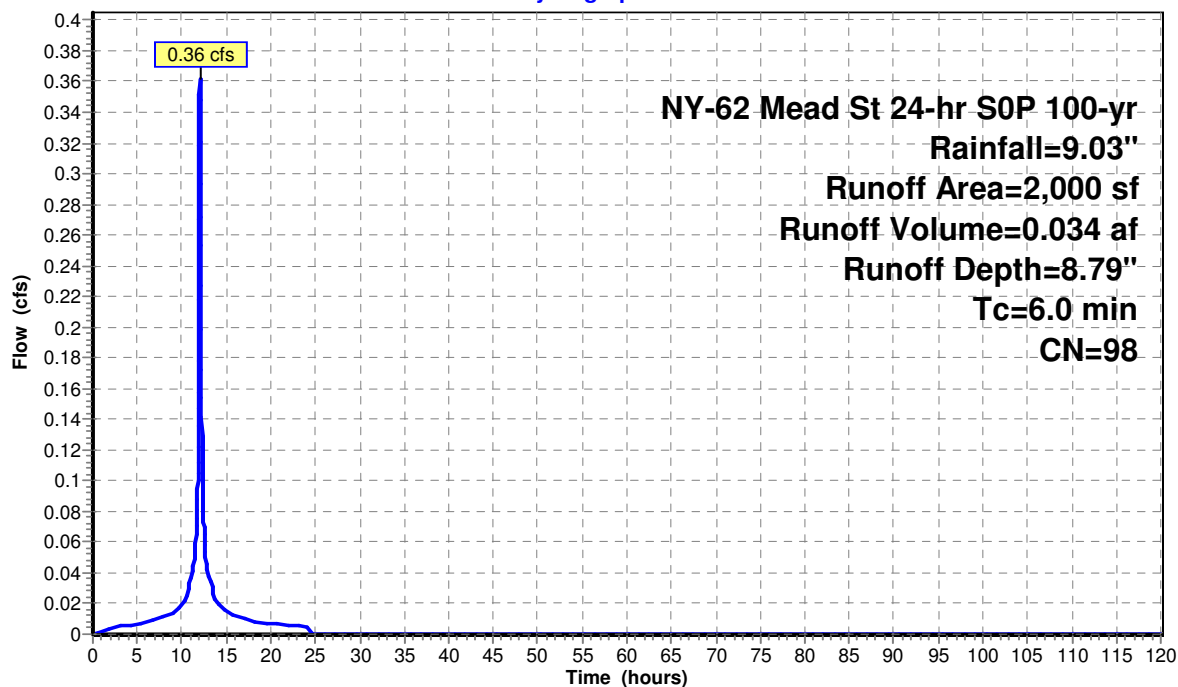
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 100-yr Rainfall=9.03"

Area (sf)	CN	Description
2,000	98	Paved parking, HSG C
2,000		100.00% Impervious Area

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

### Subcatchment 1.1S-R: Post Redeveloped Impervious

Hydrograph





## Post-Development

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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### Summary for Subcatchment 1.2S:

Runoff = 5.28 cfs @ 12.07 hrs, Volume= 0.462 af, Depth= 6.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

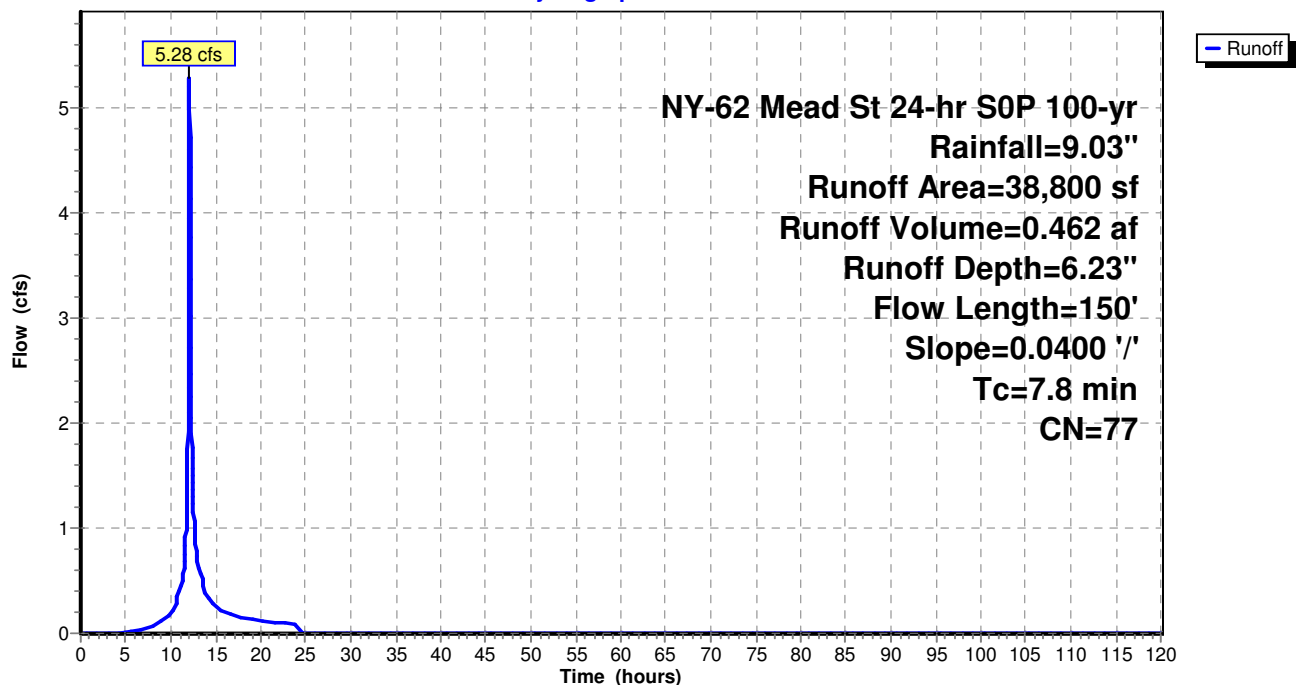
Area (sf)	CN	Description
1,700	98	Paved parking, HSG C
27,300	74	>75% Grass cover, Good, HSG C
9,800	80	>75% Grass cover, Good, HSG D
38,800	77	Weighted Average
37,100		95.62% Pervious Area
1,700		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		Sheet Flow, Grass: Short n= 0.150 P2= 3.38"
0.6	50	0.0400	1.40		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.8	150	Total			

### Subcatchment 1.2S:

Hydrograph





## Post-Development

NY-62 Mead St 24-hr SOP 100-yr Rainfall=9.03"

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### Summary for Subcatchment 2.1S:

Runoff = 2.71 cfs @ 12.06 hrs, Volume= 0.237 af, Depth= 6.72"

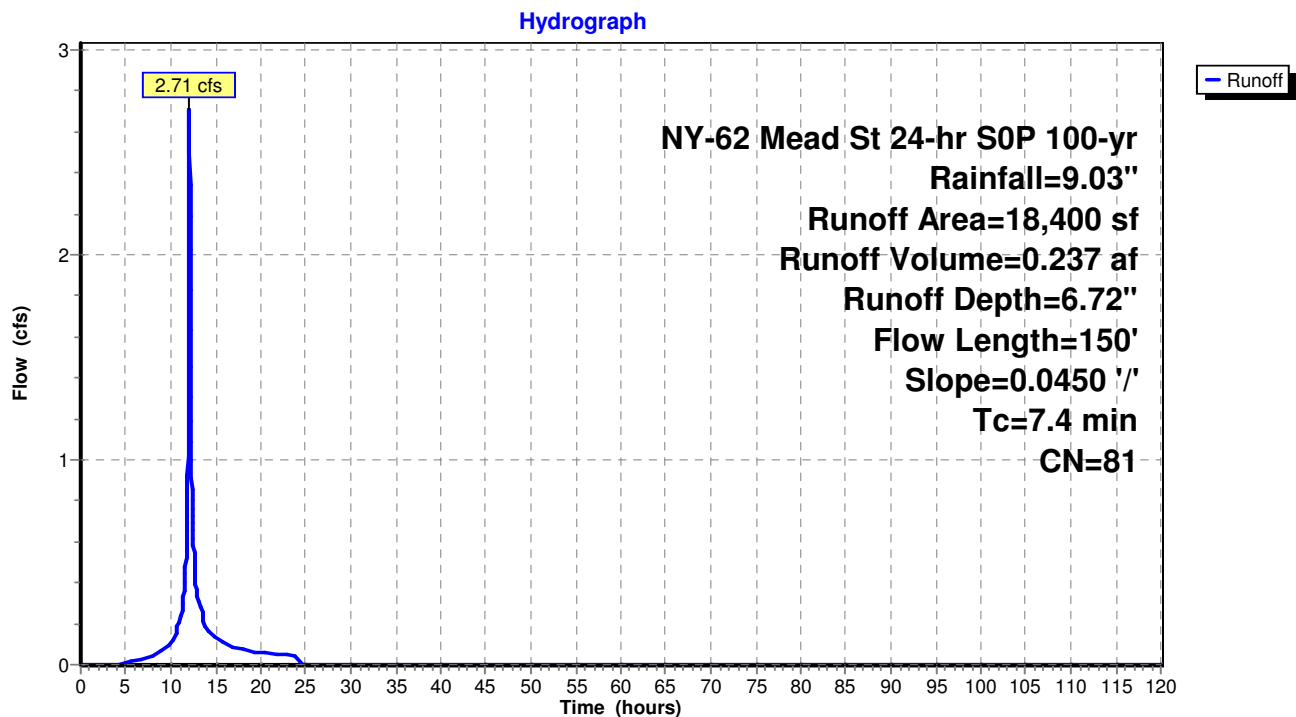
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
NY-62 Mead St 24-hr SOP 100-yr Rainfall=9.03"

Area (sf)	CN	Description
5,700	98	Paved parking, HSG C
12,700	74	>75% Grass cover, Good, HSG C
18,400	81	Weighted Average
12,700		69.02% Pervious Area
5,700		30.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0450	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.38"
0.1	15	0.0450	4.31		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	35	0.0450	1.48		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
7.4	150	Total			

### Subcatchment 2.1S:





## Post-Development

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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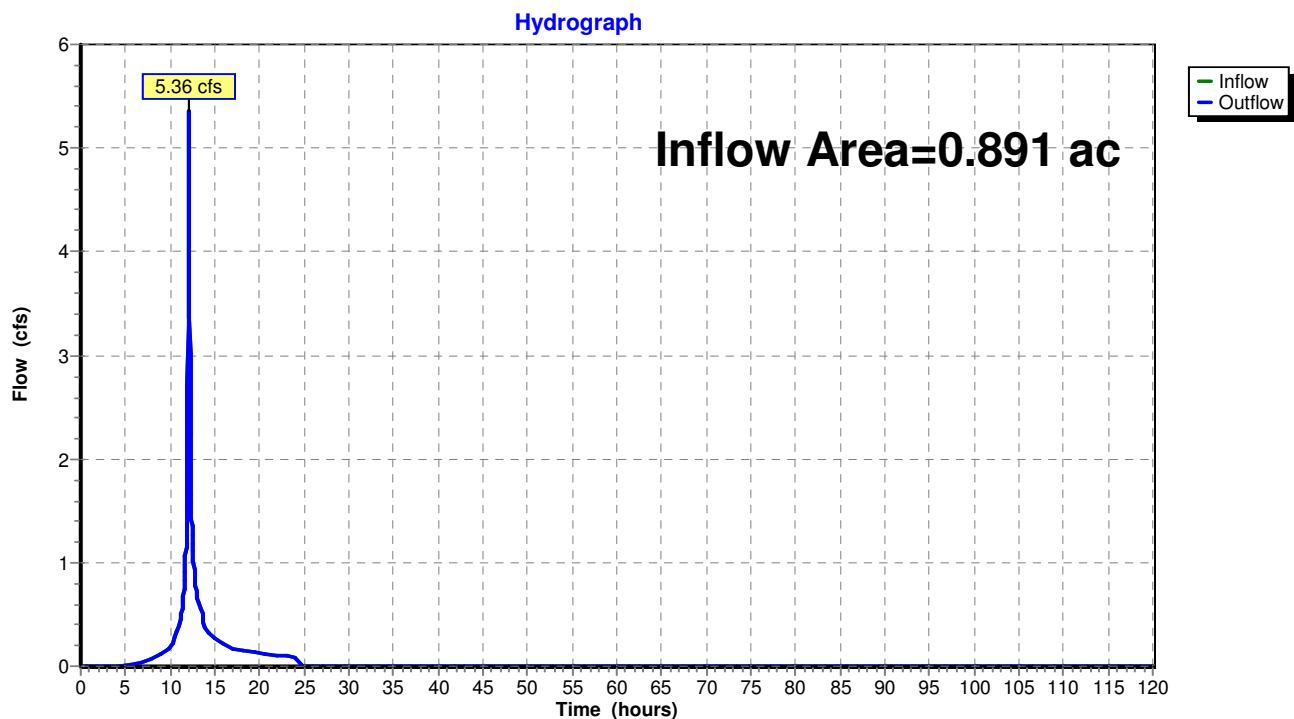
Page 39

### Summary for Reach DL1: Design Line 1

Inflow Area = 0.891 ac, 4.38% Impervious, Inflow Depth = 6.23" for 100-yr event  
Inflow = 5.36 cfs @ 12.06 hrs, Volume= 0.463 af  
Outflow = 5.36 cfs @ 12.06 hrs, Volume= 0.463 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL1: Design Line 1





## Post-Development

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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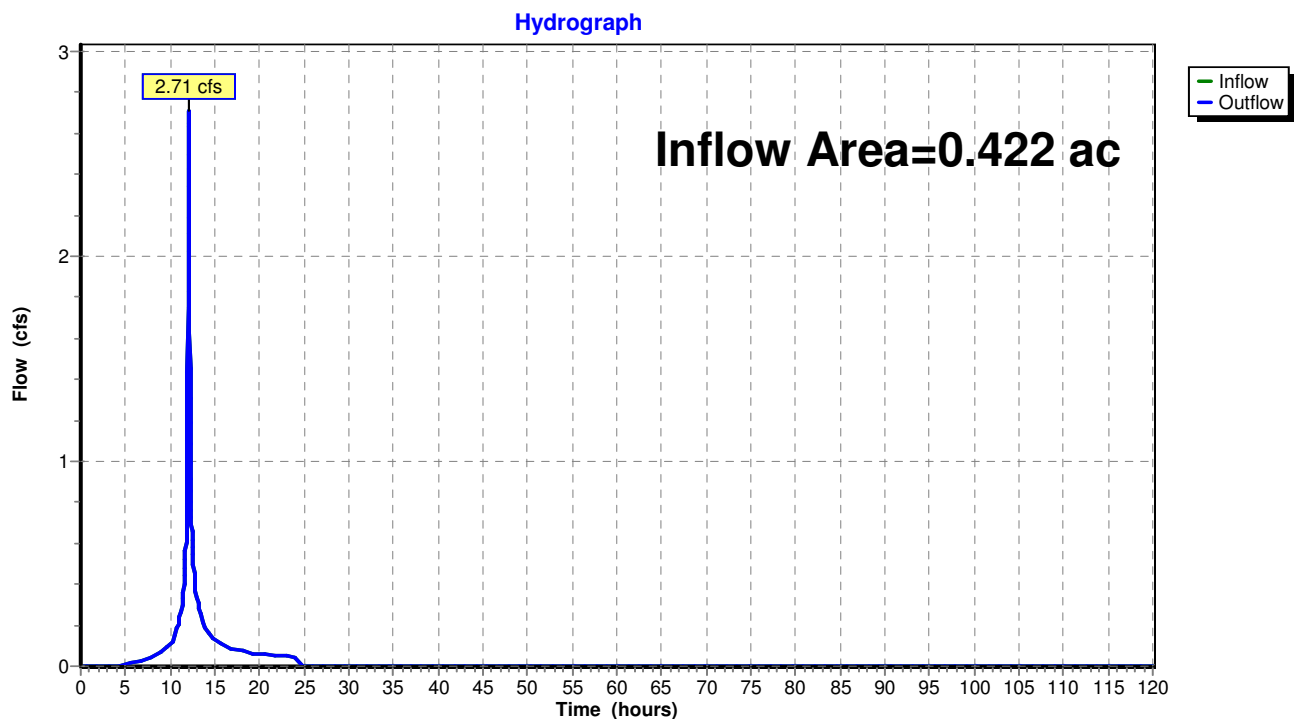
Page 40

### Summary for Reach DL2: Design Line 2

Inflow Area = 0.422 ac, 30.98% Impervious, Inflow Depth = 6.72" for 100-yr event  
Inflow = 2.71 cfs @ 12.06 hrs, Volume= 0.237 af  
Outflow = 2.71 cfs @ 12.06 hrs, Volume= 0.237 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

### Reach DL2: Design Line 2





**Post-Development**

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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**Summary for Pond 1.1P:**

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 8.00" for 100-yr event  
 Inflow = 1.46 cfs @ 12.04 hrs, Volume= 0.138 af  
 Outflow = 0.48 cfs @ 11.90 hrs, Volume= 0.138 af, Atten= 67%, Lag= 0.0 min  
 Discarded = 0.48 cfs @ 11.90 hrs, Volume= 0.138 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs  
 Peak Elev= 564.03' @ 12.30 hrs Surf.Area= 1,140 sf Storage= 762 cf

Plug-Flow detention time= 6.1 min calculated for 0.138 af (100% of inflow)  
 Center-of-Mass det. time= 6.1 min ( 773.5 - 767.5 )

Volume	Invert	Avail.Storage	Storage Description
#1A	562.70'	1,268 cf	<b>25.25'W x 45.16'L x 4.00'H Field A</b> 4,561 cf Overall - 1,392 cf Embedded = 3,169 cf x 40.0% Voids
#2A	563.70'	1,392 cf	<b>ADS_StormTech SC-740</b> x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
		2,660 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	562.70'	<b>18.000 in/hr Exfiltration over Surface area</b> Phase-In= 0.02'

**Discarded OutFlow** Max=0.48 cfs @ 11.90 hrs HW=562.76' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.48 cfs)



## Post-Development

NY-62 Mead St 24-hr SOP 100-yr Rainfall=9.03"

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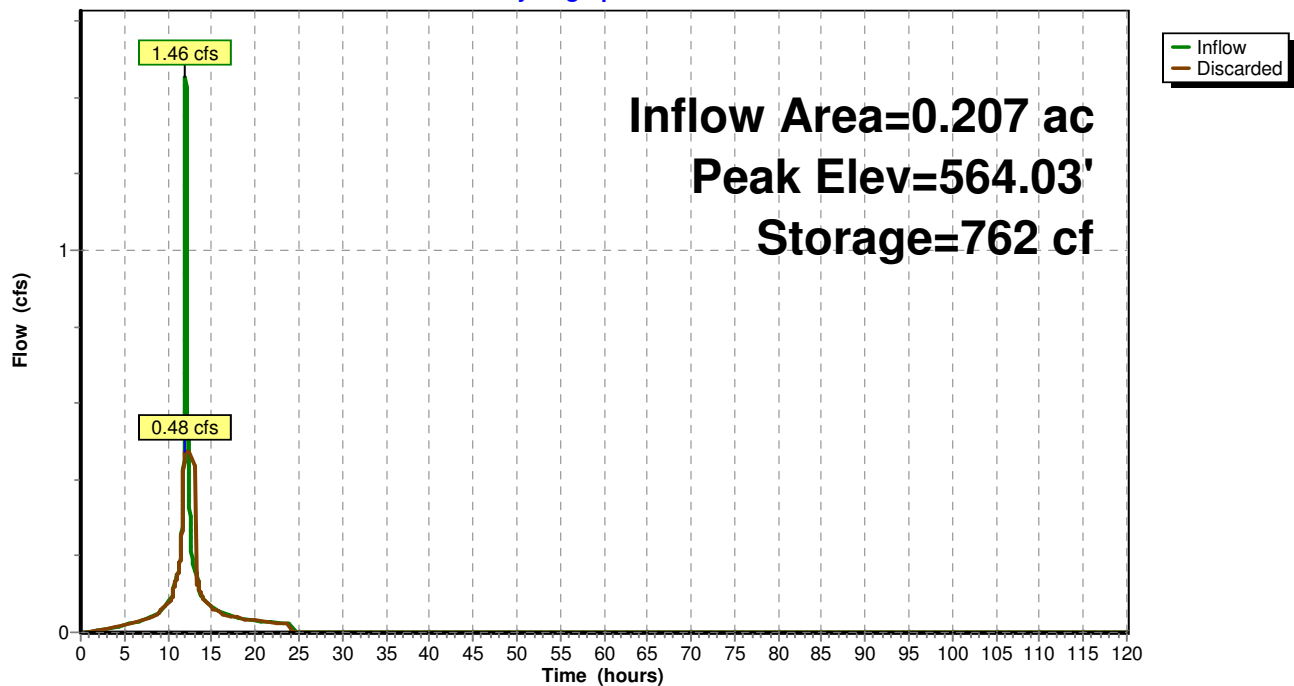
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Page 42

### Pond 1.1P:

Hydrograph





**Post-Development**

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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**Stage-Area-Storage for Pond 1.1P:**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
562.70	1,140	0	565.30	1,140	1,860
562.75	1,140	23	565.35	1,140	1,898
562.80	1,140	46	565.40	1,140	1,936
562.85	1,140	68	565.45	1,140	1,974
562.90	1,140	91	565.50	1,140	2,010
562.95	1,140	114	565.55	1,140	2,047
563.00	1,140	137	565.60	1,140	2,082
563.05	1,140	160	565.65	1,140	2,117
563.10	1,140	182	565.70	1,140	2,152
563.15	1,140	205	565.75	1,140	2,185
563.20	1,140	228	565.80	1,140	2,218
563.25	1,140	251	565.85	1,140	2,249
563.30	1,140	274	565.90	1,140	2,279
563.35	1,140	296	565.95	1,140	2,308
563.40	1,140	319	566.00	1,140	2,335
563.45	1,140	342	566.05	1,140	2,360
563.50	1,140	365	566.10	1,140	2,385
563.55	1,140	388	566.15	1,140	2,409
563.60	1,140	411	566.20	1,140	2,432
563.65	1,140	433	566.25	1,140	2,455
563.70	1,140	456	566.30	1,140	2,477
563.75	1,140	503	566.35	1,140	2,500
563.80	1,140	550	566.40	1,140	2,523
563.85	1,140	597	566.45	1,140	2,546
563.90	1,140	643	566.50	1,140	2,569
563.95	1,140	690	566.55	1,140	2,591
564.00	1,140	736	566.60	1,140	2,614
564.05	1,140	782	566.65	1,140	2,637
564.10	1,140	828	566.70	1,140	2,660
564.15	1,140	874			
564.20	1,140	920			
564.25	1,140	966			
564.30	1,140	1,011			
564.35	1,140	1,056			
564.40	1,140	1,101			
564.45	1,140	1,145			
564.50	1,140	1,190			
564.55	1,140	1,234			
564.60	1,140	1,278			
564.65	1,140	1,322			
564.70	1,140	1,365			
564.75	1,140	1,408			
564.80	1,140	1,451			
564.85	1,140	1,493			
564.90	1,140	1,536			
564.95	1,140	1,577			
565.00	1,140	1,619			
565.05	1,140	1,660			
565.10	1,140	1,701			
565.15	1,140	1,741			
565.20	1,140	1,781			
565.25	1,140	1,820			



## Post-Development

NY-62 Mead St 24-hr SOP 100-yr Rainfall=9.03"

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### Summary for Pond FS:

Inflow Area = 0.207 ac, 75.56% Impervious, Inflow Depth = 8.04" for 100-yr event  
Inflow = 1.57 cfs @ 12.04 hrs, Volume= 0.138 af  
Outflow = 1.57 cfs @ 12.04 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min  
Primary = 1.46 cfs @ 12.04 hrs, Volume= 0.138 af  
Secondary = 0.12 cfs @ 12.04 hrs, Volume= 0.001 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.02 hrs

Peak Elev= 565.06' @ 12.04 hrs

Flood Elev= 570.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	563.70'	<b>8.0" Round Culvert</b> L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 563.70' / 563.70' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	564.90'	<b>12.0" Round Culvert</b> L= 150.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 564.90' / 562.80' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

**Primary OutFlow** Max=1.46 cfs @ 12.04 hrs HW=565.06' TW=563.39' (Dynamic Tailwater)

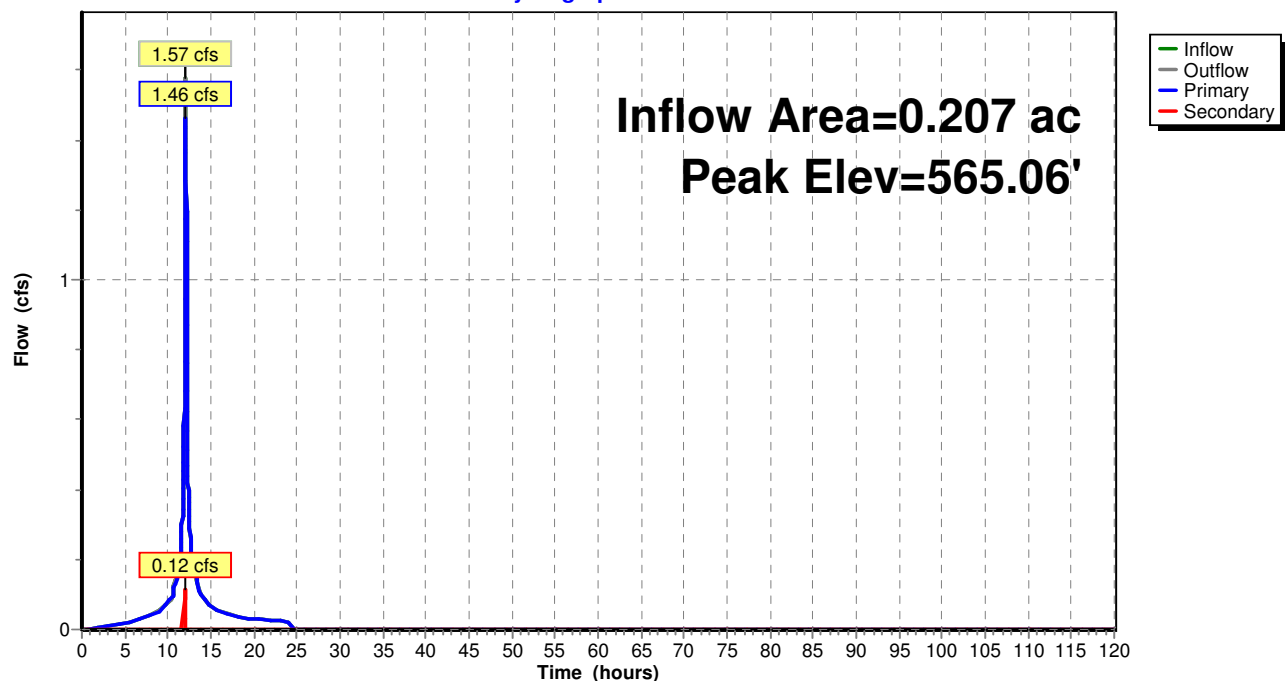
↑**1=Culvert** (Barrel Controls 1.46 cfs @ 4.17 fps)

**Secondary OutFlow** Max=0.11 cfs @ 12.04 hrs HW=565.06' TW=0.00' (Dynamic Tailwater)

↑**2=Culvert** (Inlet Controls 0.11 cfs @ 1.38 fps)

### Pond FS:

Hydrograph





**Post-Development**

NY-62 Mead St 24-hr S0P 100-yr Rainfall=9.03"

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**Stage-Area-Storage for Pond FS:**

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
563.70	0	568.90	0
563.80	0	569.00	0
563.90	0	569.10	0
564.00	0	569.20	0
564.10	0	569.30	0
564.20	0	569.40	0
564.30	0	569.50	0
564.40	0	569.60	0
564.50	0	569.70	0
564.60	0	569.80	0
564.70	0	569.90	0
564.80	0	570.00	0
564.90	0	570.10	0
565.00	0	570.20	0
565.10	0		
565.20	0		
565.30	0		
565.40	0		
565.50	0		
565.60	0		
565.70	0		
565.80	0		
565.90	0		
566.00	0		
566.10	0		
566.20	0		
566.30	0		
566.40	0		
566.50	0		
566.60	0		
566.70	0		
566.80	0		
566.90	0		
567.00	0		
567.10	0		
567.20	0		
567.30	0		
567.40	0		
567.50	0		
567.60	0		
567.70	0		
567.80	0		
567.90	0		
568.00	0		
568.10	0		
568.20	0		
568.30	0		
568.40	0		
568.50	0		
568.60	0		
568.70	0		
568.80	0		







**ATTACHMENT C**  
**Pool Drawdown Calculation**

Pool Length = 25'

Pool Width = 23'

Pool Area = Length x Width = 23' x 25' = 575 s.f.

Drawdown Depth = 0.5'

Drawdown Volume = Pool Area x Drawdown Depth = 575 s.f. x 0.5' = 287.5 c.f.

Storage volume provided below infiltration system overflow = 1,536 c.f. (as shown in Table 1)

1,536 c.f. is greater than 287.5 c.f. therefore enough volume is provided in the infiltration system to accommodate a 6" drawdown.





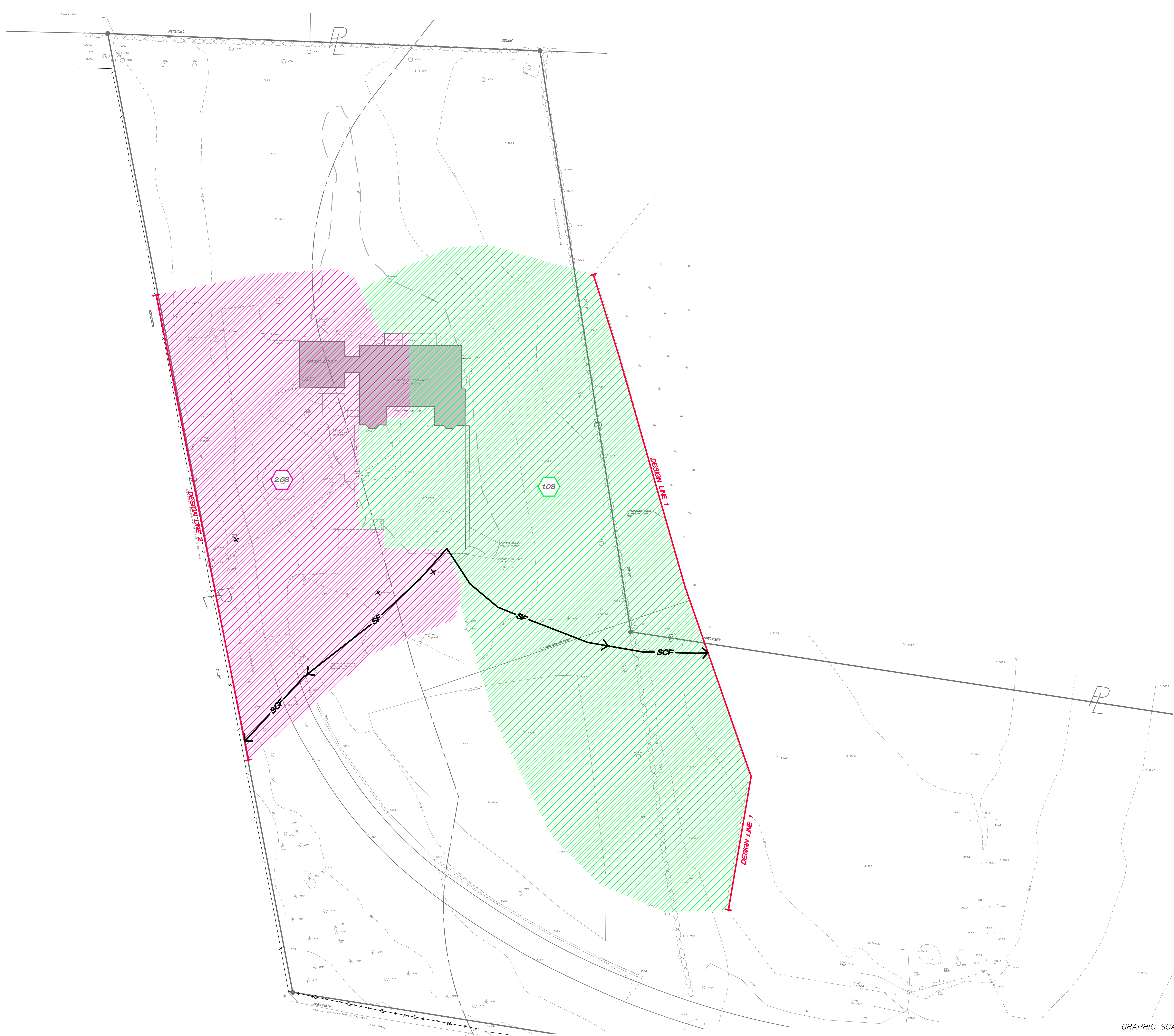
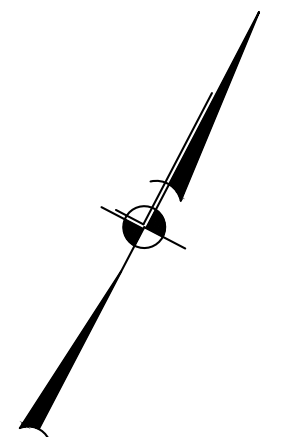


## FIGURES



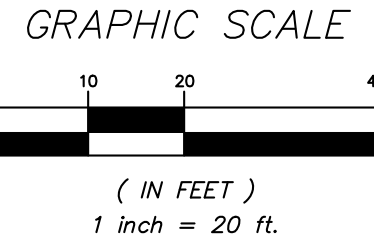




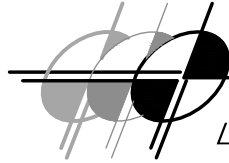


**LEGEND**

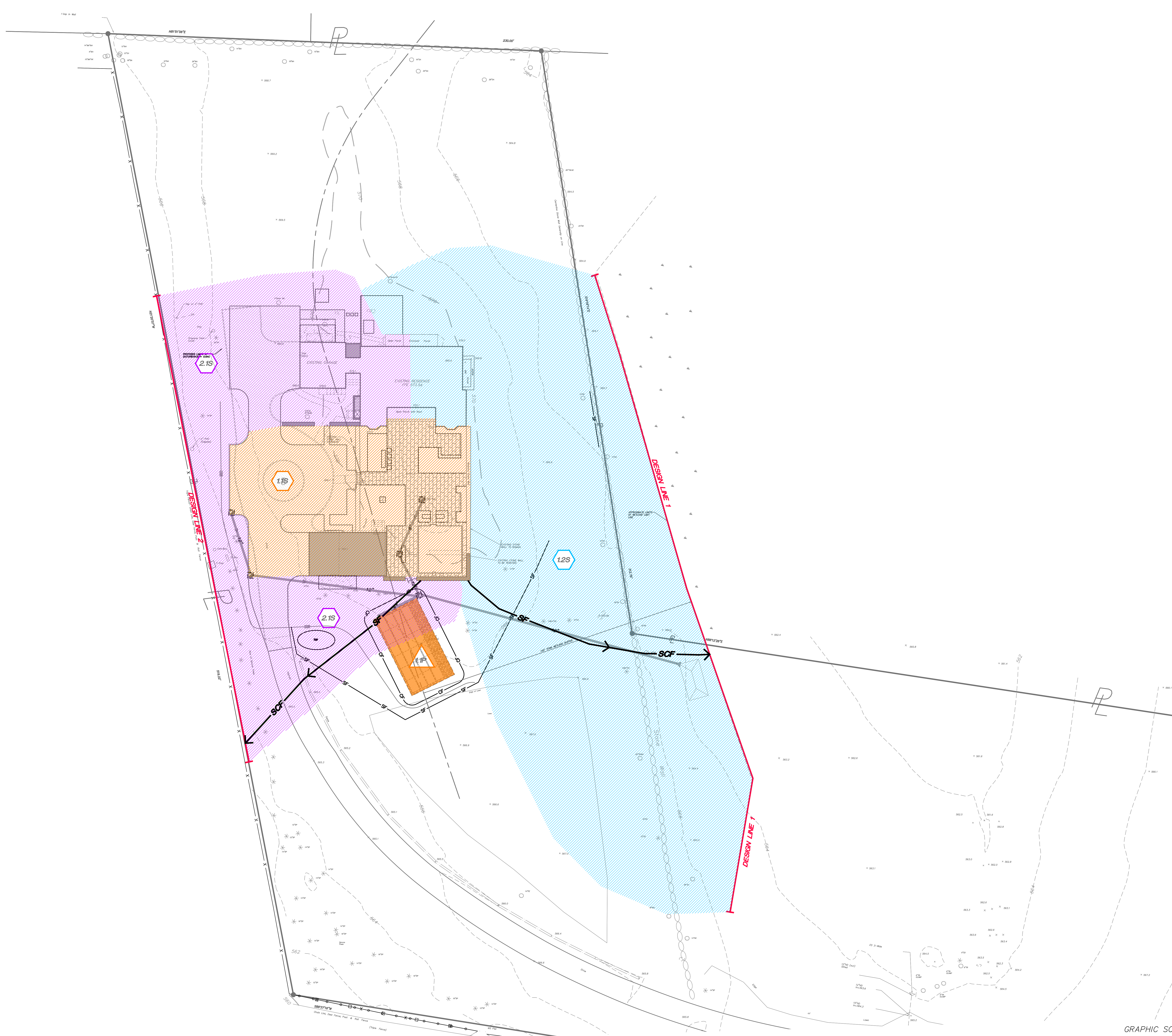
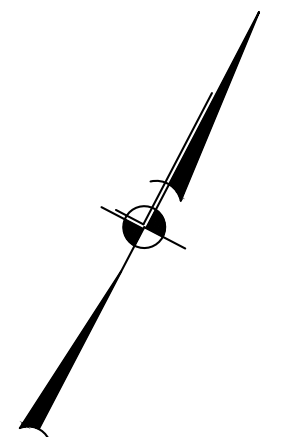
- SUBCATCHMENT
- TIME OF CONCENTRATION SHEET FLOW
- TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
- DESIGN LINE
- SUBCATCHMENT CONTRIBUTING AREA



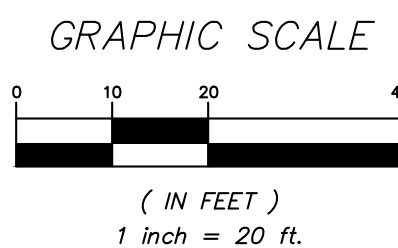
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.

NO.	DATE	REVISION	BY
<div><b>INSITE</b> ENGINEERING, SURVEYING &amp; LANDSCAPE ARCHITECTURE, P.C.</div> <div>3 Garrett Place Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com</div>			
PROJECT: <b>DAYTON RESIDENCE</b> 62 MEAD STREET, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK			
DRAWING: <b>PRE-DEVELOPMENT DRAINAGE MAP</b>			
PROJECT NUMBER 21170.100	PROJECT MANAGER J.M.W.	FIGURE NO. <b>1</b>	
DATE 11-30-21	DRAWN BY T.M.B.		
SCALE 1" = 20'	CHECKED BY J.M.W.		





LEGEND	
	SUBCATCHMENT
	STORMWATER MANAGEMENT PRACTICE
	TIME OF CONCENTRATION SHEET FLOW
	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
	DESIGN LINE
	SUBCATCHMENT CONTRIBUTING AREA
	STORMWATER MANAGEMENT / GREEN INFRASTRUCTURE PRACTICE AREA



ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.

NO.	DATE	REVISION	BY
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.			
PROJECT: DAYTON RESIDENCE			
82 MEAD STREET, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK			
DRAWING: POST-DEVELOPMENT DRAINAGE MAP			
PROJECT NUMBER	21170.100	PROJECT MANAGER	J.M.W.
DATE	11-30-21	DRAWN BY	T.M.B.
SCALE	1" = 20'	CHECKED BY	J.M.W.
FIGURE NO.			2

Z:\21170.100\Dayton, 62 Mead Street\Drawings\Figure 2 - Drainage Map.dwg, 1/29/2022 4:44:13 PM, sheet 1 of 1



Z:\21072020\Dayton, CT Mead Street\Drawings\Figures\Fig 3 - Testing Plan.dwg, 11/30/2021, 10:59:59 AM, User: J.L.

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



LEGEND	
	EXISTING PROPERTY LINE
	EXISTING SETBACK
	EXISTING STONE WALL
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	EXISTING SPOT GRADE
	EXISTING CHAIN LINK FENCE
	EXISTING WETLAND LIMIT LINE
	EXISTING WETLAND BUFFER
	EXISTING WELL
	PROPOSED 2' CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED SPOT ELEVATION
	PROPOSED CATCH BASIN
	PROPOSED END SECTION
	PROPOSED DRAINAGE PIPE
	PROPOSED SILT FENCE OR STRAW WATTLE
	PROPOSED CONSTRUCTION FENCE
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED TEMPORARY SOIL STOCKPILE
	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED DRAINAGE STRUCTURE W/ INLET PROTECTION
	PROPOSED INFILTRATION TEST HOLE LOCATION
	PROPOSED DEEP TEST HOLE LOCATION

DEEP HOLE TEST RESULTS:  
TESTS PERFORMED 10-19-2021  
TESTS PERFORMED BY:  
TAYLOR BETZ, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.  
WITNESSED BY: STEVE SIGIGNANO (KELLARD SESSIONS CONSULTING)

NOTE: NO MOTTLING, LEDGE ROCK OR GROUNDWATER UNLESS NOTED.

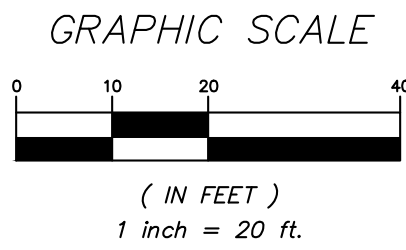
D-1: 0"-12" TOPSOIL  
12"-102" SANDY LOAM WITH SOME GRAVEL  
SEEP AT 92"

D-2: 0"-8" TOPSOIL  
8"-96"+ BROWN SANDY LOAM WITH SOME GRAVEL  
WATER AT 96"

INFILTRATION TEST RESULTS:  
TESTS PERFORMED 10-19-2021  
TESTS PERFORMED BY:  
TAYLOR BETZ, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.  
WITNESSED BY: STEVE SIGIGNANO (KELLARD SESSIONS CONSULTING)

I-1: 20" IN./HR. @ DEPTH OF 64"  
I-2: 18" IN./HR. @ DEPTH OF 58"

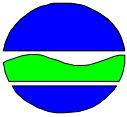
NOTE: DEPTH PROVIDED IS FROM EXISTING GRADE TO BOTTOM OF INFILTRATION TEST HOLE.



NO.	DATE	REVISION	BY
 ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com			
PROJECT: <b>DAYTON RESIDENCE</b>			
62 MEAD STREET, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK			
DRAWING: <b>TESTING PLAN</b>			
PROJECT NUMBER	21170.100	PROJECT MANAGER	J.M.W.
DATE	11-30-21	DRAWN BY	P.J.M.
SCALE	1" = 20'	CHECKED BY	T.M.B.
FIGURE NO.			3



## NOTICE OF INTENT



## New York State Department of Environmental Conservation

## Division of Water

625 Broadway, 4th Floor

Albany, New York 12233-3505

NYR

--	--	--	--	--	--

(for DEC use only)

**Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001**

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

**-IMPORTANT-****RETURN THIS FORM TO THE ADDRESS ABOVE**OWNER/OPERATOR MUST SIGN FORM

## Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

D u n c a n &amp; R e n e a D a y t o n

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

D a y t o n

Owner/Operator Contact Person First Name

D u n c a n

Owner/Operator Mailing Address

6 2 M e a d S t r e e t

City

W a c c a b u c

State

N Y

Zip

1 0 5 9 7 -

Phone (Owner/Operator)

9 1 4 - 4 4 1 - 0 2 9 6

Fax (Owner/Operator)

- -

Email (Owner/Operator)

d u n c a n @ h i g h c r o f t g r o u p . c o m

FED TAX ID

- (not required for individuals)



Project Site Information

Project/Site Name

Dayton
Residence

Street Address (NOT P.O. BOX)

62
Mead
Street

Side of Street

☐ North
☐ South
☐ East
☒ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

Lew
is
bor
o

State

NY

Zip

10597
-

County

West
che
ster

DEC Region

3

Name of Nearest Cross Street

East
Ridge
Road

Distance to Nearest Cross Street (Feet)

625

Project In Relation to Cross Street

☐ North
☒ South
☐ East
☐ West

Tax Map Numbers
Section-Block-Parcel

42.2-1-12

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you must go to the NYSDEC Stormwater Interactive Map on the DEC website at:

[www.dec.ny.gov/imsmaps/stormwater/viewer.htm](http://www.dec.ny.gov/imsmaps/stormwater/viewer.htm)

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

Y Coordinates (Northing)

4

2. What is the nature of this construction project?

- ☐ New Construction
- ☒ Redevelopment with increase in impervious area
- ☐ Redevelopment with no increase in impervious area



4107089829

3. Select the predominant land use for both pre and post development conditions.  
**SELECT ONLY ONE CHOICE FOR EACH**

Pre-Development  
Existing Land Use

☐ FOREST  
☐ PASTURE/OPEN LAND  
☐ CULTIVATED LAND  
☒ SINGLE FAMILY HOME  
☐ SINGLE FAMILY SUBDIVISION  
☐ TOWN HOME RESIDENTIAL  
☐ MULTIFAMILY RESIDENTIAL  
☐ INSTITUTIONAL/SCHOOL  
☐ INDUSTRIAL  
☐ COMMERCIAL  
☐ ROAD/HIGHWAY  
☐ RECREATIONAL/SPORTS FIELD  
☐ BIKE PATH/TRAIL  
☐ LINEAR UTILITY  
☐ PARKING LOT  
☐ OTHER

Post-Development  
Future Land Use

☒ SINGLE FAMILY HOME  
☐ SINGLE FAMILY SUBDIVISION  
☐ TOWN HOME RESIDENTIAL  
☐ MULTIFAMILY RESIDENTIAL  
☐ INSTITUTIONAL/SCHOOL  
☐ INDUSTRIAL  
☐ COMMERCIAL  
☐ MUNICIPAL  
☐ ROAD/HIGHWAY  
☐ RECREATIONAL/SPORTS FIELD  
☐ BIKE PATH/TRAIL  
☐ LINEAR UTILITY (water, sewer, gas, etc.)  
☐ PARKING LOT  
☐ CLEARING/GRADING ONLY  
☐ DEMOLITION, NO REDEVELOPMENT  
☐ WELL DRILLING ACTIVITY \*(Oil, Gas, etc.)  
☐ OTHER

Number of Lots

**\*Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site  
Area

6

.

1

Total Area To  
Be Disturbed

0

.

6

Existing Impervious  
Area To Be Disturbed

0

.

2

Future Impervious  
Area Within  
Disturbed Area

0

.

3

5. Do you plan to disturb more than 5 acres of soil at any one time? Yes ☒ No

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A

%

B

%

C

1

0

0

%

D

%

7. Is this a phased project? Yes ☐ No ☒

8. Enter the planned start and end dates of the disturbance activities.

Start Date

0

1

/

0

1

/

2

0

2

2

-

End Date

1

2

/

3

1

/

2

0

2

2



Name
S t r e a m      t r i b u t a r y      t o      C r o s s      R i v e r
R e s e r v o i r

<input type="checkbox"/>	Wetland / State Jurisdiction On Site (Answer 9b)	
<input type="checkbox"/>	Wetland / State Jurisdiction Off Site	
<input type="checkbox"/>	Wetland / Federal Jurisdiction On Site (Answer 9b)	
<input type="checkbox"/>	Wetland / Federal Jurisdiction Off Site	
<input checked="" type="checkbox"/>	Stream / Creek On Site	
<input type="checkbox"/>	Stream / Creek Off Site	
<input type="checkbox"/>	River On Site	
<input type="checkbox"/>	River Off Site	9b. F
<input type="checkbox"/>	Lake On Site	<input checked="" type="checkbox"/> F
<input type="checkbox"/>	Lake Off Site	<input type="checkbox"/> F
<input type="checkbox"/>	Other Type On Site	<input type="checkbox"/> F
<input type="checkbox"/>	Other Type Off Site	<input type="checkbox"/> C

✓	Regulatory Map
	Delineated by Consultant
	Delineated by Army Corps of Engineers
	Other (identify)

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ☐ Yes ☒ No

If Yes, what is the acreage to be disturbed?

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☐ Yes    ☒ No    ☐ Unknown

[illegible]

☐ Yes    ☒ No    ☐ Unknown

☐ Yes      ☒ No

☐ Yes      ☒ No

☐ Yes      ☒ No

☒ Yes      ☐ No

☐ Yes      ☒ No

☐ Yes      ☐ No



Soil and Water Conservation District (SWCD)

Registered Landscape Architect (R.L.A)

**Certified Professional in Erosion and Sediment Control (CPESC)**

Owner / Operator

Other

SWPPP Preparer

I	n	s	i	t	e		E	n	g	i	n	e	e	r	i	n	g
---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---	---	---

Contact Name (Last, Space, First)

W	a	t	s	o	n	,		J	o	h	n
---	---	---	---	---	---	---	--	---	---	---	---

Mailing Address

3	G	a	r	r	e	t	t	P	l	a	c	e
---	---	---	---	---	---	---	---	---	---	---	---	---

City

C	a	r	m	e	l
---	---	---	---	---	---

State Zip

N	Y
---	---

1	0	5	1	2
---	---	---	---	---

Phone

8	4	5	-	2	2	5	-	9	6	9	0
---	---	---	---	---	---	---	---	---	---	---	---

Fax

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--	--	--	--	--

Email

J W a t s o n @ i n s i t e - e n g . c o m

## SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

J	o	h	n
---	---	---	---

MI

M

**Last Name**

W	a	t	s	o	n
---	---	---	---	---	---

Signature

Date \_\_\_\_\_

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/				
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☒ Yes      ☐ No

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Post-construction Stormwater Management Practice (SMP) Requirements

**Important:** Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ☐ Preservation of Undisturbed Areas
- ☐ Preservation of Buffers
- ☐ Reduction of Clearing and Grading
- ☐ Locating Development in Less Sensitive Areas
- ☐ Roadway Reduction
- ☐ Sidewalk Reduction
- ☐ Driveway Reduction
- ☐ Cul-de-sac Reduction
- ☐ Building Footprint Reduction
- ☐ Parking Reduction

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ☐ All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ☐ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required  

.

acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

**Note:** Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.



Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

RR Techniques (Area Reduction)	Total Contributing Area (acres)		Total Contributing Impervious Area(acres)	
Conservation of Natural Areas (RR-1) ...	<div></div>	<div></div> and/or	<div></div>	<div></div>
Sheetflow to Riparian Buffers/Filters Strips (RR-2) .....	<div></div>	<div></div> and/or	<div></div>	<div></div>
Tree Planting/Tree Pit (RR-3) .....	<div></div>	<div></div> and/or	<div></div>	<div></div>
Disconnection of Rooftop Runoff (RR-4) ..	<div></div>	<div></div> and/or	<div></div>	<div></div>
RR Techniques (Volume Reduction)				
Vegetated Swale (RR-5) .....	<div></div>	<div></div>	<div></div>	<div></div>
Rain Garden (RR-6) .....	<div></div>	<div></div>	<div></div>	<div></div>
Stormwater Planter (RR-7) .....	<div></div>	<div></div>	<div></div>	<div></div>
Rain Barrel/Cistern (RR-8) .....	<div></div>	<div></div>	<div></div>	<div></div>
Porous Pavement (RR-9) .....	<div></div>	<div></div>	<div></div>	<div></div>
Green Roof (RR-10) .....	<div></div>	<div></div>	<div></div>	<div></div>
Standard SMPs with RRv Capacity				
Infiltration Trench (I-1) .....	<div></div>	<div></div>	<div></div>	<div></div>
Infiltration Basin (I-2) .....	<div></div>	<div></div>	<div></div>	<div></div>
Dry Well (I-3) .....	<div></div>	<div></div>	<div></div>	<div></div>
Underground Infiltration System (I-4) .....	<div></div>	<div></div>	<div></div>	<div></div>
Bioretention (F-5) .....	<div></div>	<div></div>	<div></div>	<div></div>
Dry Swale (O-1) .....	<div></div>	<div></div>	<div></div>	<div></div>
Standard SMPs				
Micropool Extended Detention (P-1) .....	<div></div>	<div></div>	<div></div>	<div></div>
Wet Pond (P-2) .....	<div></div>	<div></div>	<div></div>	<div></div>
Wet Extended Detention (P-3) .....	<div></div>	<div></div>	<div></div>	<div></div>
Multiple Pond System (P-4) .....	<div></div>	<div></div>	<div></div>	<div></div>
Pocket Pond (P-5) .....	<div></div>	<div></div>	<div></div>	<div></div>
Surface Sand Filter (F-1) .....	<div></div>	<div></div>	<div></div>	<div></div>
Underground Sand Filter (F-2) .....	<div></div>	<div></div>	<div></div>	<div></div>
Perimeter Sand Filter (F-3) .....	<div></div>	<div></div>	<div></div>	<div></div>
Organic Filter (F-4) .....	<div></div>	<div></div>	<div></div>	<div></div>
Shallow Wetland (W-1) .....	<div></div>	<div></div>	<div></div>	<div></div>
Extended Detention Wetland (W-2) .....	<div></div>	<div></div>	<div></div>	<div></div>
Pond/Wetland System (W-3) .....	<div></div>	<div></div>	<div></div>	<div></div>
Pocket Wetland (W-4) .....	<div></div>	<div></div>	<div></div>	<div></div>
Wet Swale (O-2) .....	<div></div>	<div></div>	<div></div>	<div></div>



Total Contributing  
Impervious Area(acres)

[illegible]

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

[illegible][illegible]

**Note:** Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

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 · 

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 acre-feet

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

☐ Yes      ☐ No

If Yes, go to question 36.

If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.  
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

### Minimum RRv Required

--	--	--

·

--	--	--

acre-feet

- 32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

☐ Yes    ☐ No

If Yes, go to question 33.

**Note:** Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.



33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

**Note:** Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

.

acre-feet

**Note:** For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

.

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ☐ Yes ☐ No

If Yes, go to question 36.  
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

.

acre-feet

CPv Provided

.

acre-feet

36a. The need to provide channel protection has been waived because:

☐ Site discharges directly to tidal waters or a fifth order or larger stream.

☐ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

.

CFS

Post-development

.

CFS

Total Extreme Flood Control Criteria (Qf)

Pre-Development

.

CFS

Post-development

.

CFS

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- Site discharges directly to tidal waters or a fifth order or larger stream.
- Downstream analysis reveals that the Qp and Qf controls are not required

☐ Yes      ☐ No

[illegible]







I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

[illegible]MI

7

Print Last Name

[illegible]

Owner/Operator Signature \_\_\_\_\_

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Date

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/

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Jeanne Donovan Fisher  
68 Mead Street  
Waccabuc, New York 10597

November 27, 2021

Lewisboro Planning Board  
Lewisboro, New York

Members of the Planning Board,

I am writing in support of Duncan and Renea Dayton's permit application for 62 Mead Street, which pertains to improvements they intend to make to the existing stone courtyard and related drainage considerations.

My property at 68 Mead directly abuts the Daytons, and we share management of the wetlands meadow between our two properties.

I have reviewed the Dayton's plans and am supportive of the work they intend to do. It will have no material impact whatsoever on my property and I have no concerns that the board should consider when making its determination. In fact, the plans look well considered and are clearly focused on more effectively managing water runoff from the existing patio area.

I hope you will act favorably on their application.

Sincerely,

Jeanne Donovan Fisher  
68 Mead Street



Michael and Mimi Boublik  
58 Mead Street  
Waccabuc, NY 10597

November 27, 2021

Lewisboro Planning Board  
Lewisboro, New York

Dear Members of the Planning Board,

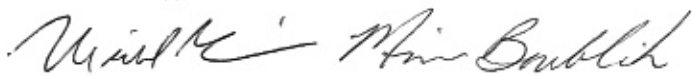
We are writing in support of Duncan and Renea Dayton's permit application for 62 Mead Street, which pertains to improvements they intend to make to the existing stone courtyard and related drainage considerations.

Our property at 58 Mead Street directly abuts the Dayton's, to the north and east.

The Dayton's have shared their plans with us and we are supportive of the work they intend to undertake. It will have no material impact whatsoever on our property and will enhance their property immensely. The plans look well considered and are clearly focused on more effectively managing water runoff from the existing patio area.

We hope you will act favorably on their application.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael & Mimi Boublik".

Michael & Mimi Boublik





November 28, 2021

Lewisboro Planning Board  
79 Bouton Rd.  
South Salem, NY 10590

Dear Members of the Planning Board,

I am writing in support of Duncan and Renea Dayton's permit application for 62 Mead Street, which pertains to improvements they intend to make to the existing stone courtyard and related drainage considerations.

Waccabuc Country Club's golf course abuts the Dayton's property to the west and the Club owns 74 Mead Street which is in close proximity to 62 Mead Street.

We have reviewed the Dayton's plans and are supportive of the work they intend to do. It will have no material impact whatsoever on our properties and we have no concerns that the Board should consider when making its determination. In fact, the plans look well considered and are clearly focused on more effectively managing water runoff from the existing patio area.

We support their application.

Sincerely,

Ashley Murphy  
President  
Waccabuc Country Club