AGENDA PACKET

Part 4 of 4

MAY 17, 2022 MEETING

	CAL#	**PAGE**
AGENDA		**2**
HARDART GARAGE, 12 GILBERT STREET, SOUTH SALEM	**Cal #11-22WP**	
Kellard Sessions memo, dated May 13, 2022		
CAC memo, dated May 10, 2022		
Wetland permit application, dated March 24, 2022		
Architectural drawings, Paul Dennis, AIA; dated August 2, 2021		
RINI/LANGEL RESIDENCE,15 BENEDICT ROAD, SOUTH SALEM	**Cal #15-22WP**	**Cal #07-22SW**
Kellard Sessions memo, dated May 13, 2022		
CAC memo, dated May 10, 2022		
Cover letter plus Wetland and Stormwater permit applications, dated April 9, 2022		
Site plans, ALP Engineering, dated April 11, 2022		
Stormwater Report, ALP Engineering, dated April 11, 2022		
MAPLE TREE FARM, 400 SMITH RIDGE ROAD, SOUTH SALEM	**Cal #01-21WV**	
No new materials.		**-**
REFERRAL FROM LEWISBORO TOWN BOARD – Rezoning petition for 19 Mark Mead Road, Cross River		
Petition for Zoning Map Amendment, Antonio Coppola, dated April 25, 2022		
Supervisor cover letter, dated April 28, 2022		
Town Board Resolution, dated April 25, 2022		

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

AGENDA

Tuesday, May 17, 2022

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://us06web.zoom.us/j/81168093499?pwd=Z3BySXFjUzl3VUZBV3RITmNuWjRaQT09

Meeting ID: 811 6809 3499 Passcode: 064612

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

I. DECISION

Cal #56-05WP
Rinaldi Residence, 9 North Lake Circle, South Salem, NY 10590, Sheet 43A, Block 11827, Lot 23 (Audrey and Peter Rinaldi, owners of record) – Request for relaxation of septic requirement in existing wetland permit.

II. EXTENSION OF TIME REQUESTS

Cal #03-20PB, Cal #37-20WP
Gossett Brothers Nursery, 1202 Route 35, South Salem, NY 10590, Sheet 31 Block 10805 Lot 46 (Thomas Gossett for T. Gossett Revocable Trust – owner of record) - Application for Site Development Plan Approval and Wetland Activity Permit Approval for an existing nursery.

Cal #08-12PB
Petruccelli/Badagliacca, Oscaleta Road, South Salem, NY 10590 Sheet 33B, Block 11157, Lot 46 (Steven Petruccelli and Teresa Badagliacca, owners of record) - Request for a 90-day Extension of Time to resolution granting Preliminary/Final Subdivision Plat, Negative Declaration Under SEQRA, dated October 21, 2014.

III. PUBLIC HEARINGS

Cal #03-22PB, Cal #09-22SW
Arbor Hills Water System, 0 Brundige Drive, Goldens Bridge, NY 10526, Sheet 12, Block 11152, Lot 200 (Arbor Hill Waterworks, Inc, owner of record) - Application for the construction of a water treatment facility.

Cal #09-22PB, Cal #17-22WP, Cal #10-22SW
Indian Hills Water System, 0 Apache Circle, Katonah, NY 10536, Sheet 10, Block 11152, Lot 189 (Waccabuc Water Works, Inc, owner of record) - Application for **c**onstruction of a water treatment facility and three new wells.

Cal #05-22PB
The Boro Café, 873 Route 35, Cross River, NY 10518, Sheet 20, Block 10800, Lot 8 (GHI Real Estate Corp., owner of record) - Application for change of use from office to restaurant and yoga studio.

IV. SUBDIVISION

Cal #03-13PB, Cal #03-16WP
"Silvermine Preserve," Silvermine Drive & Lockwood Road, South Salem, NY, 10590 Sheet 48, Block 10057, Lot 15 and Sheet 51, Block 10057, Lot 104 (Ridgeview Designer Builders, Inc. & Daniel Higgins, owners of record) - Applications for Subdivision, Wetland Activity and Stormwater Permits for the construction of a 13-lot subdivision.

V. WETLAND PERMIT REVIEWS

Cal #11-22WP
Hardart Garage, 12 Gilbert Street, South Salem, NY 10590, Sheet 36F, Block 10806, Lots 32 & 33 (Frank Hardart III, owner of record) – Application for a garage.

Cal #15-22WP, Cal #07-22SW
Rini/Langel Residence,15 Benedict Road, South Salem, NY 10590, Sheet 33, Block 11155, Lot 10 (James Rini and Elizabeth Langel, owners of record) - Application for a garage/cabana, pool and patio

VI. WETLAND VIOLATION

Cal #01-21WV
Maple Tree Farm, 400 Smith Ridge Road, South Salem; Sheet 24, Block 9831, Lot 49B (Maple Tree Farm, LLC, owner of record)

VII. CORRESPONDENCE

Town Board referral for zoning change at 19 Mark Mead Road, Cross River.

VIII. MINUTES OF April 19, 2022.

IX. NEXT MEETING DATE: June 21, 2022.

X. ADJOURN MEETING.

KELLARD SESSIONS

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

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: May 13, 2022

RE: Wetland Permit
Hardart Residence Garage Replacement
12 Gilbert Street, South Salem
Section 36F, Block 10806, Lot 36

PROJECT DESCRIPTION

The subject property consists of ±0.44 acre of land and is located at 12 Gilbert Street within the R-1/4 Zoning District. The subject property is developed with a single-family residence, gravel driveway off Gilbert Street, and 1.5-story detached garage. The property fronts on Truesdale Lake, and the entire parcel is located within the Town's 150-foot wetland buffer. The applicant is proposing to demolish and reconstructed the garage on approximately the same footprint and is proposing a second-floor playroom and bathroom, overed porch and breezeway connecting to the residence.

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 is required from the Planning Board; a public hearing is required to be held on the Wetland Permit.

COMMENTS

1. This office defers review of the plan for zoning compliance to the Building Inspector. It is recommended that the application be referred to the Building Inspector for review.

2. The applicant shall provide and existing conditions survey, signed and sealed by a licensed land surveyor. The survey shall become the basis for the site plan, which shall be provided as a separate sheet and at a scale of 1" = 10'.

3. The plan shall illustrate and quantify the limits of disturbance (s.f.). The plan shall note that disturbance limits shall be staked in the field prior to construction. If the limits of disturbance exceed ≥5,000 s.f., the applicant will be required to conform with the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit (GP-0-20-001) and file a Notice of Intent (NOI) and MS4 Acceptance Form with the NYSDEC.

4. Quantify the net increase in impervious cover.

5. Illustrate the location of existing and proposed roof leader drains and discharge locations.

6. Illustrate all underground utility runs (water, sewer, electric, etc.).

7. If no trees are proposed to be removed, a note to this effect shall be added to the plan.

8. Include erosion control measures on the plan, including, but not limited to, temporary construction access, silt fence, tree protection, construction sequence, etc. Details shall be provided and shall be in conformance with the most recent version of the New York State Standards and Specifications for Erosion and Sediment Control.

9. The location of the existing septic system and well shall be illustrated on the plan; the septic area shall be cordoned off during construction.

10. Depending on the extent of disturbance and new impervious cover, a wetland mitigation plan may be required.

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 PAUL DENNIS, A.I A., DATED AUGUST 2, 2021:

- Plot Plan, Floor Plans, Notes (A-1)
- Elevations (A-2)
- Section Electrical (A-3)
- Existing House First Floor (A-4)
- Existing House Second Floor (A-5)

DOCUMENT REVIEWED:

- Wetland Permit Application

JKJ/dc

TO: The Town of Lewisboro Planning Board

FROM: Lewisboro Conservation Advisory Council

SUBJECT: Hardart Garage, 12 Gilbert Street, South Salem, NY 10590

DATE: May 10, 2022

The Conservation Advisory Council (CAC) has reviewed the materials submitted by the applicant for the construction of a garage. The new construction is within the wetland buffer

Inspection of 12 Gilbert Street shows an existing garage on or near the location indicated in the submission. The CAC would like to know if this is a replacement on the same footprint which would have an impact on the wetland mitigation. Besides this clarification, the CAC would like to see a wetland mitigation plan including steps to insure the lake is protected during any removal and construction and a stormwater plan. The CAC would like the plans updated to indicate any trees that might be removed.

Application No.: 11 – 22 WP
Fee: $255 (pd) Date: 3/24/22
escrow est'd

TOWN OF LEWISBORO
WETLAND PERMIT APPLICATION

79 Bouton Road, South Salem, NY 10590
Phone: (914) 763-5592
Fax: (914) 875-9148

Project Address: 12 Gilbert Street, South Salem, NY 10590

Sheet: 036F Block: 10806 Lot(s): 036

Project Description (Identify the improvements proposed within the wetland/wetland buffer and the approximate amount of wetland/wetland buffer disturbance): REBUILD EXISTING 2-CAR GARAGE, NO INCREASE DISTURBANCE

Owner's Name: Frank J. Hardart, III Phone: (646) 258-7172

Owner's Address: 12 Gilbert Street, S. Salem, NY 10590 Email: fhardart@educatellc.com

Applicant's Name (if different): Paul Dennis, Architect Phone: (914) 806-7874

Applicant's Address: 26 Gilbert Street, S. Salem, NY 10590 Email: pauldennis.architects@gmail.com

Agent's Name (if applicable): _____ Phone: _____

Agent's Address: _____ Email: _____

TO BE COMPLETED BY OWNER/APPLICANT

What type of Wetland Permit is required? (see §217-5C and §217-5D of the Town Code)

☐ Administrative ■ Planning Board

Is the project located within the NYCDEP Watershed? ■ Yes ☐ No

Total area of proposed disturbance: ■ < 5,000 s.f. ☐ 5,000 s.f. - < 1 acre ☐ ≥1 acre

Does the proposed action require any other permits/approvals from other agencies/departments? (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 Activity Permit, Building Permit

Note: Initially, all applications shall be submitted with a plan that illustrates the existing conditions and proposed improvements. Said plan must include a line which encircles the total area of proposed land disturbance and the approximate area of disturbance must be calculated (square feet). The Planning Board and/or Town Wetland Inspector may require additional materials, information, reports and plans, as determined necessary, to review and evaluate the proposed action. If the proposed action requires a Planning Board Wetland Permit, the application materials outlined under §217-7 of the Town Code must be submitted, unless waived by the Planning Board. The Planning Board may establish an initial escrow deposit to cover the cost of application/plan review and inspections conducted by the Town's consultants.

For administrative wetland permits, see attached Administrative Wetland Permit Fee Schedule.

Owner Signature: _____ Date: 3/21/22

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisboroogov.com
Tel: (914) 763-5592 Fax: (914) 875-9148

Tax Payment Affidavit Requirement

This form must accompany all applications to the Planning Board.

Under regulations adopted by the Town of Lewisboro, the Planning Board may not accept any application unless an affidavit from the Town of Lewisboro Receiver of Taxes is on file in the Planning Board office. The affidavit must show that all amounts due to the Town of Lewisboro as real estate taxes and special assessments on the total area encompassed by the application, together with all penalties and interest thereon, have been paid.

Under New York State law, the Westchester County Clerk may not accept any subdivision map for filing unless the same type of affidavit from the Town of Lewisboro Receiver of Taxes is submitted by the applicant at the time of filing.

This form must be completed by the applicant and must accompany all applications to the Planning Board. Upon receipt, the Planning Board Secretary will send the form to the Receiver of Taxes for signature and notarization. If preferred, the applicant may directly obtain the signature of the Receiver of Taxes and notarization prior to submission.

To Be Completed by Applicant
(Please type or print)

Frank J Hardart
Name of Applicant

12 Gilbert St. Garage
Project Name

Property Description

Tax Block(s): 10806

Tax Lot(s): 32

Tax Sheet(s): 36F

Property Assessed to:

Frank J Hardart III
Name

12 Gilbert St.
Address

South Salem NY 10590
City State Zip

The undersigned, being duly sworn deposes and says that a search of the tax records in the office of the Receiver of Taxes, Town of Lewisboro, reveals that all amounts due to the Town of Lewisboro as real estate taxes and special assessments, together with all penalties and interest thereon, affecting the premises described below, have been paid.

Signature - Receiver of Taxes: [signature] 3/21/2022
Date

Sworn to before me this

21st **day of** March, 2022

JANET L. DONOHUE
NOTARY PUBLIC, STATE OF NEW YORK
No. 01DO6259627
Qualified in Westchester County
Commission Expires April 16, 2024

[signature]
Signature - Notary Public (affix stamp)

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592
Fax: (914) 875-9148

Affidavit of Ownership

State of: New York

County of: Westchester

Frank Hardart, being duly sworn, deposes and says that he/she resides at 12 Gilbert St., South Salem in the County of Westchester, State of NY and that he/she is (check one) x the owner, or _____ the _____ *Title* of _____ *Name of corporation, partnership, or other legal entity* which is the owner, in fee of all that certain log, piece or parcel of land situated, lying and being in the Town of Lewisboro, New York, aforesaid and know and designated on the Tax Map in the Town of Lewisboro as:

Block 10806, Lot 32, on Sheet 36F.

Owner's Signature

Sworn to before me this

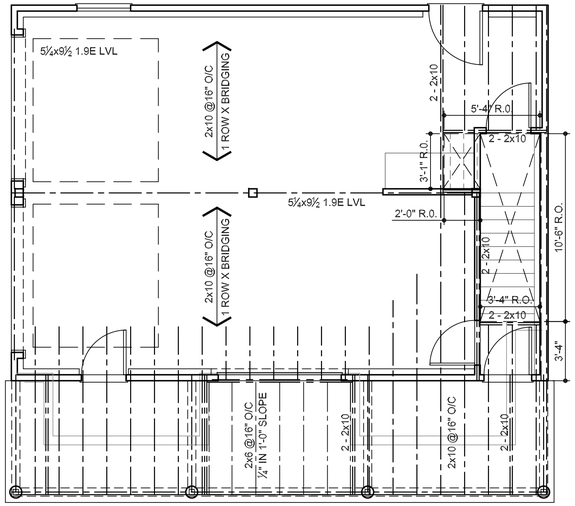
24th **day of** March, 2022

JOHN SHEA
Notary Public - State of New York
NO. 01SH6390036
Qualified in Putnam County
My Commission Expires Apr 8, 2023

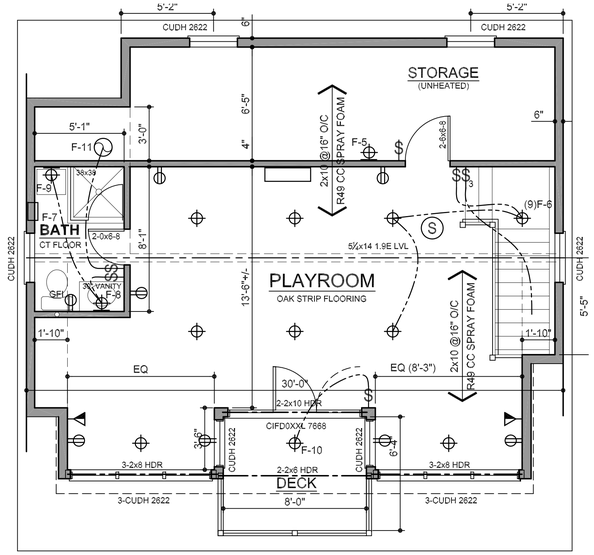
Notary Public – affix stamp

FOUNDATION NOTES:

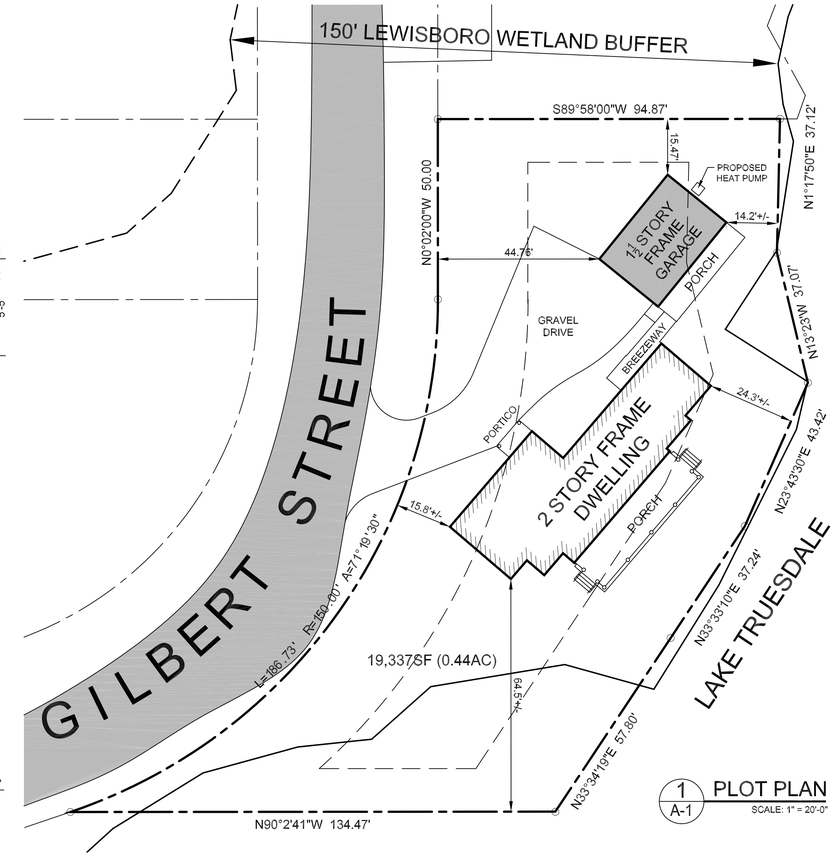
1. STAKE OUT THE EXISTING FOOTPRINT OF THE GARAGE BEFORE DEMOLISHING THE EXISTING .
2. MINIMUM SOIL BEARING CAPACITY TO BE 2 TONS/SF, ON UNDISTURBED SUBSOIL OR 90% COMPACTED FILL. WHERE OVER-EXCAVATION IS NECESSARY, PROVIDE 90% COMPACTED CRUSHED STONE OR CONCRETE FILL.
3. WHERE COMPACTED SUBGRADE IS LOOSE OR UNSUITABLE FOR VAPOR RETARDER AND INSTALLATION OF SLAB-ON-GRADE, INSTALL 4" OF COMPACTED ¾" CRUSHED STONE BASE.
4. CONCRETE FOR FOUNDATION WALLS AND STRIP FOOTINGSTO BE MIN. 3,000PSI 28-DAY COMPRESSIVE STRENGTH. INTERIOR SLABS TO BE 2,500PSI. MIN. COVER TO REINFORCEMENT TO BE 1½". THICKNESS OF STRIP FOOTINGS TO BE NOT LESS THAN THE WIDTH OF WALL BEARING ON IT.
5. INSTALL ½" GALVANIZED STEEL ANCHOR BOLTS SPACED NOT MORE THAN 4'-0" O/C. MASAP MUDSILL ANCHORS MAY BE USED IN LIEU OF ANCHOR BOLTS.
6. FOUNDATION WALLS ARE DESIGNED TO BE PLACED IN A SINGLE POUR. HORIZONTAL COLD JOINTS ARE NOT PERMITTED. WHERE VERTICAL COLD JOINTS ARE NECESSARY, INSTALL #4 DOWELS X 48" LENGTH AT 16" O/C.
7. ALL REINFORCING BARS TO BE A MINIMUM OF GRADE 40 DEFORMED BARS. MINIMUM LAP AT SPLICES TO BE NOT LESS THAN 40 TIMES THE BAR DIAMETER.
8. FOUNDATION WALLS TO HAVE A MINIMUM 14-DAY SET BEFORE COMMENCING BACKFILL. PLACE BACKFILL IN 12" LIFTS, EQUAL ON BOTH SIDES FOR ENTIRE LENGTH OF FOUNDATION WALL.
9. POST FOOTING FORMS WHERE INDICATED, TO BE SONOTUBE TUBEBASE OR BIGFOOT FORMS, SET ON A MINIMUM 4" COMPACTED CRUSHED STONE BASE.
10. POSTS TO BE SECURED TO FOOTINGS WITH SIMPSON ABU SERIES POST BASES, TO HEADERS WITH TYPE BC OR BCS POST CAPS, SIZE TO SUIT POSTS. WHERE PT POSTS ARE INDICATED TO BE SECURED TO FOOTINGS BELOW GRADE, USE STAINLESS STEEL POST BASES.



4 A-1 2ND FLOOR FRAMING PLAN
SCALE: ¼" = 1'-0"



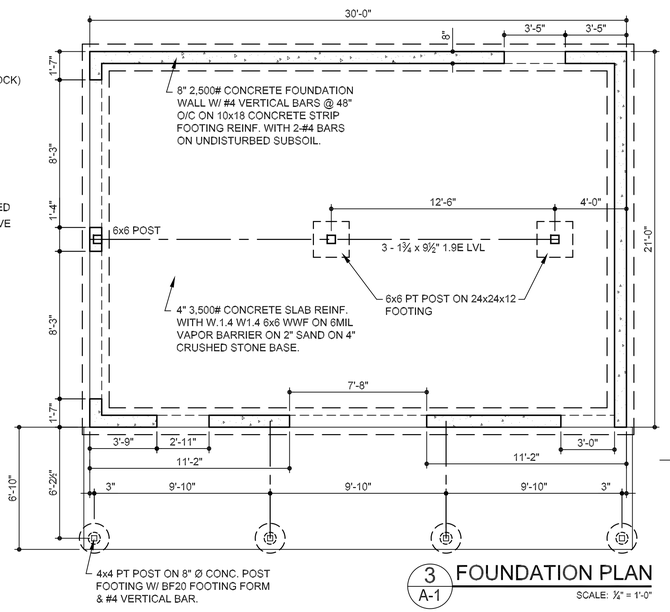
3 A-1 2ND FLOOR PLAN
SCALE: ¼" = 1'-0"



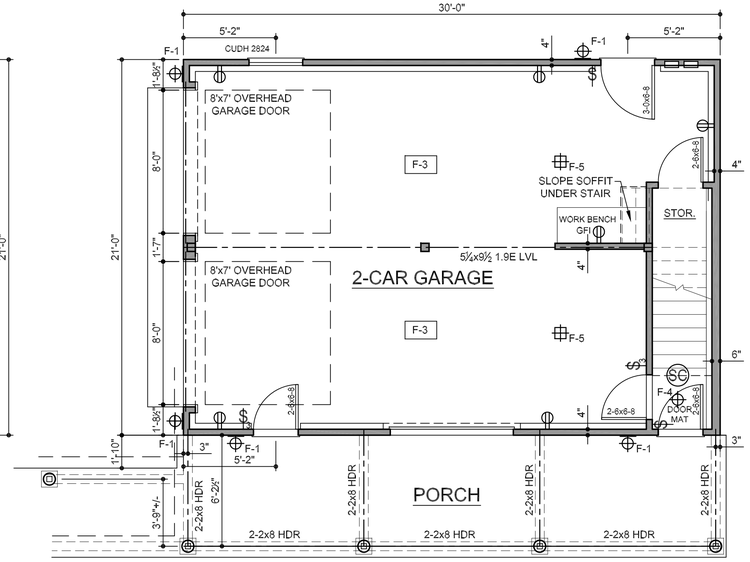
1 A-1 PLOT PLAN
SCALE: 1" = 20'-0"

LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- NEW PARTITON
- FIBERGLASS BATT INSULATION
- CONCRETE MASONRY UNIT (BLOCK)
- CONCRETE
- STONE
- CRUSHED STONE/ GRAVEL
- RIGID INSULATION
- STRUCTURAL STEEL
- NEW DIMENSIONAL LUMBER
- SHIM OR BLOCKING AS REQUIRED
- LINE OF BEAM OR HEADER ABOVE
- PT PRESSURE TREATED
- T.O. TRIMMED (CASED) OPENING
- R.O. ROUGH OPENING
- PD POCKET DOOR
- EX EXISTING
- FPSC FIRE PROOF SELF-CLOSING
- E.W. EGRESS WINDOW



3 A-1 FOUNDATION PLAN
SCALE: ¼" = 1'-0"



2 A-1 GARAGE PLAN
SCALE: ¼" = 1'-0"

ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE:
FOR THE TOWN OF LEWISBORO, WESTCHESTER COUNTY
TABLE 402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE
4A	0.32	0.55	0.40	49	20 or 13+5	8/13	19	10/13	10, 2FT	10/13

FILL CAVITIES EXPOSED IN EXISTING FRAMING TO EXTERIOR WITH FIBERGLASS BATT INSULATION PER 2020 NYS RC SECTION AJ104.1.1

DESIGN CRITERIA, RESIDENTIAL CODE OF NEW YORK STATE
FOR THE TOWN OF LEWISBORO, WESTCHESTER COUNTY
Table R301.2 (1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND SPEED (mph)	SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM:				Winter Design Temperature	Ice shield underlayment required	Flood hazards	Air freezing index
			Weathering	Frost line depth	Termites	Decay				
30 lbs/sf	115	B	Severe	3'-6"	Moderate to Heavy	Slight to Moderate	7	Yes	No - per map 36119C0095F eff. 9/28/2007	<1500

TOWN OF LEWISBORO ZONING CALCULATION

GARAGE, 12 GILBERT STREET, SOUTH SALEM, NY 10590
SECTION 36F, BLOCK 10806, LOT 32
ZONING DISTRICT R-1/ 4, RESIDENTIAL

Bulk Regulations:	Required/Allowable	Existing/Proposed	Variance Required
Lot Area:	¼ ACRE	0.44 AC.	No
Lot Width:	75'	236.73'	No
Building Height: Stories:	2½	1½ /2	No
Feet:	35'	14'-0"/ 15'-0"	No
Front Yard Setback:	25'	15.8'	No
Side Yard Setbacks:	12'	15.47', 64.5'	No
Rear Yard Setback:	25'	14.2'+/- Unchanged	Yes
Max Building Coverage:	25%	16.5%/ 17.1%	No

SCOPE OF WORK

1. WORK COMPRISES REBUILDING AN EXISTING 2-CAR GARAGE. THE LOCATION AND FOOTPRINT IS TO REMAIN UNCHANGED AND CONSISTS OF A 630SF GARAGE WITH A 198SF STORAGE LOFT AND A 230SF PORCH. THE GARAGE WAS BUILT IN 1926 ON A CONCRETE SLAB AND IS ABOUT 12" BELOW GRADE. THE WORK IS TO REMOVE THE EXISTING GARAGE, BUILD A FOUNDATION AND FLOOR SLAB JUST ABOVE GRADE AND REBUILD THE GARAGE. THE BUILDING IS TO HAVE A ½ STORY ABOVE THE GARAGE CONTAINING A PLAYROOM, BATHROOM AND STORAGE. THE GARAGE IS TO HAVE A BREEZEWAY CONNECTING TO THE HOUSE AND A SPIRAL STAIR IS TO BE BUILT IN THE REAR ALLOWING EASIER ACCESS FROM THE UPPER PORCH TO THE LAKEFRONT LEVEL.
2. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES:
   2020 RESIDENTIAL CODE OF NEW YORK STATE
   2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE
   2017 NATIONAL ELECTRICAL CODE (NFPA 70)
   TOWN OF LEWISBORO MUNICIPAL CODE
   IF CONFLICTS EXIST BETWEEN DIFFERENT CODES, THE STRICTER CODE SHALL APPLY.

GENERAL NOTES:

1. ALL DIMENSIONS INDICATED FOR NEW WORK ARE NOMINAL STUD TO STUD EXISTING DIMENSIONS INDICATED ARE FINISH TO FINISH. VERIFY ALL DIMENSIONS IN THE FIELD AND NOTIFY ARCHITECT OF ANY DISCREPANCY BEFORE PROCEEDING WITH THE WORK.
2. ALL MATERIALS, COMPONENTS AND ACCESSORIES USED FOR THE CONSTRUCTION OF THE WORK INDICATED SHALL BE NEW, FIRST QUALITY AND SPECIFICALLY RECOMMENDED BY THEIR MANUFACTURER FOR THE USE INTENDED. FOLLOW MANUFACTURERS INSTALLATION INSTRUCTIONS AND DIAGRAMS AND INCLUDE ALL RELATED WORK UPON WHICH THEIR PROPER INSTALLATION AND WARRANTY DEPENDS.
3. ALL FRAMING LUMBER TO BE #2 GRADE DOUGLAS FIR, OR BETTER. SILL PLATES TO BE SET ON SILL SEALER AND TERMITE SHIELDS. DOUBLE-UP FJ'S, CJ'S AND RAFTERS AT OPENINGS REQUIRING CUT MEMBERS. SILLS AND WOOD MEMBERS EXPOSED TO WEATHER TO BE #1 GRADE SYP PRESSURE TREATED WOOD. USE MATERIAL RATED FOR CONTINUOUS GROUND CONTACT WHERE IN CONTACT WITH GROUND. OSB SHEATHING WILL BE REJECTED. DOUBLE-UP FLOOR JOISTS BELOW LOADBEARING PARTITIONS PARALLEL TO FRAMING DIRECTION.
4. EXTERIOR WALL CONSTRUCTION TO BE WOOD LAP SIDING TO MATCH EXISTING HOUSE ON 1-LAYER HOUSEWRAP, ON ½" CDX PLYWOOD SHEATHING, ON 2x4 STUDS AT GARAGE LEVEL AND 2x6 STUDS @ 16" O/C WITH R-20 FIBERGLASS BATT INSULATION, ½" GWB INTERIOR FACE, SCREW APPLIED AT THE UPPER LEVEL.
5. INTERIOR PARTITIONS TO BE 2x4 STUDS @ 16" O/C, UNLESS OTHERWISE INDICATED. FINISH EXPOSED FACES WITH ½" GYPSUM WALLBOARD. WHERE STONE OR CERAMIC TILE FINISHES ARE SCHEDULED, PROVIDE ½" FIBER CEMENT BACKER BOARD.
6. SECURE RAFTERS TO WALL PLATES WITH H2.5T SEISMIC/ HURRICANE CLIPS. SHEATHING IS DESIGNED TO RESIST DESIGN WIND LOADS. FLOATING EDGES IN SHEATHING ARE NOT PERMITTED. PROVIDE WOOD BLOCKING AT FLOATING EDGES AND SECURELY FASTEN BOTH EDGES.
7. WINDOWS INDICATED ARE MARVIN. EXTERIOR FINISH COLOR TO BE WHITE. PROVIDE ALL UNITS WITH EXTENSION JAMBS AND SCREENS. VERIFY MANUFACTURERS MINIMUM ROUGH OPENING DIMENSIONS FOR UNITS INDICATED. UNITS ANNOTATED "EGRESS WINDOW" MAY NOT BE CHANGED IN EITHER SIZE OR MANUFACTURE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
8. ROOF CONSTRUCTION TO BE ASPHALT SHINGLES ON 1-LAYER OF POLYPROPYLENE UNDERLAYMENT ON ½" OSB ROOF DECK ON SCHEDULED RAFTERS @ 16" O/C TO MATCH EXISTING HOUSE. APPLY ICE AND WATER SHIELD AT EAVES AND EXTEND NOT LESS THAN 2' BEYOND INTERIOR FACE OF EXTERIOR WALLS
9. WHERE ROOFS INTERSECT WITH WALLS, EXTEND ICE/WATER SHIELD UP WALLS MINIMUM 8", AND OVER ENTIRE ROOF SURFACE OF ROOF WITH A PITCH OF 3 IN 12 OR LESS. PROVIDE METAL FLASHING AT ROOF TO SIDEWALLS. USE STAINLESS STEEL OR COPPER FLASHINGS IN CONTACT WITH CEDAR SIDING OR PRESSURE TREATED WOOD.
10. CROSS BRIDGING TO BE METAL TENSION BRIDGING. SOLID BLOCKING IN LIEU OF BRIDGING WILL BE REJECTED. INSTALL ROWS OF BRIDGING NOT LESS THAN 5'-0" FROM JOIST BEARING AND NOT MORE THAN 8'-0" APART UNLESS INDICATED OTHERWISE. PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS OVER ALL LOAD-BEARING PARTITONS.
11. UNLESS OTHERWISE NOTED, PROVIDE ONE JACK STUD AT EACH END OF ALL HEADERS WITH A CLEAR SPAN OF LESS THAN 6'-1" AND TWO JACK STUDS AT HEADERS WITH LONGER SPANS. WHERE POSTS ARE INDICATED ON THE PLANS, THEY ARE JACK STUDS. MINIMUM SIZE HEADERS AT INTERIOR DOORS TO BE 2-2x6 U.O.N. HEADERS AT LOADBEARING PARTITIONS ARE INDICATED ON THE DRAWINGS.
12. PAINT ALL EXPOSED DRYWALL AND CEILING SURFACES WITH 1-COAT OF VALSPAR PRIMER/ SEALER AND 2-COATS FLAT LATEX FINISH. PAINT ALL TRIM AND DOORS WITH 1-COAT ALKYD PRIMER AND 3-COATS LATEX EGGSHELL FINISH.
13. PROVIDE GUTTERS AND LEADERS TO MATCH EXISTING, CONNECT TO EXISTING STORM WATER SYSTEM.

#	ISSUE	DATE
1	PERMITS	8-2-2021

PAUL DENNIS, A.I.A.
ARCHITECTS
26 GILBERT STREET, SOUTH SALEM, NY 10590
914-763-0959
pauldennis.architects@gmail.com

PAUL DENNIS, NEW YORK A-16781

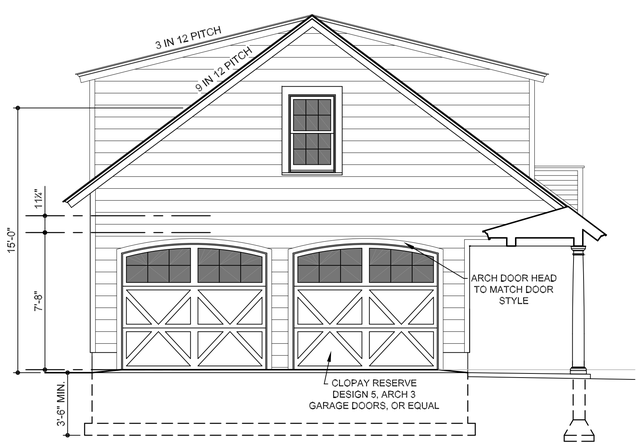
GARAGE REBUILD
12 GILBERT STREET
SOUTH SALEM, NY 10590

TITLE
PLOT PLAN
FLOOR PLANS,
NOTES,

DATE	MAY 22, 2021
SCALE	1/4" = 1'-0", U.O.N.
DRAWN BY	LP/ PD
CHECKED BY	
JOB	2295
SHEET 1 OF 5	
DRAWING #	A-1

3 A-2 PROPOSED REAR (LAKE) ELEVATION
SCALE: ¼" = 1'-0"

4 A-2 PROPOSED FRONT (WEST) ELEVATION
SCALE: ¼" = 1'-0"



2 A-2 SOUTH ELEVATION
SCALE: ¼" = 1'-0"

1 A-2 NORTH ELEVATION
SCALE: ¼" = 1'-0"

#	ISSUE	DATE
1	PERMITS	8-2-2021

PAUL DENNIS, NEW YORK A-16781

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GARAGE REBUILD
12 GILBERT STREET
SOUTH SALEM, NY 10590

TITLE
ELEVATIONS

DATE	OCTOBER 10, 2020
SCALE	1/4" = 1'-0", U.O.N.
DRAWN BY	LP/ PD
CHECKED BY	
JOB	2295
SHEET 2 OF 5	
DRAWING #	A-2

ELECTRICAL LEGEND

	LED WALL SCONCE
	LED DOWNLIGHT
	LED ADJUSTABLE ACCENT LIGHT
	LED STRIP LIGHT
	DECORATIVE LED FIXTURE, FURNISHED BY OWNER
	DUPLEX OUTLET
GFI	DUPLEX OUTLET/ GROUND FAULT INTERRUPTOR
	SIMPLEX OUTLET
	TV ANTENNA/CTV OUTLET
	TELEPHONE OUTLET
	COMBINATION TV/ DATA OUTLET
T	PROGRAMMABLE THERMOSTAT
$3	3-WAY LIGHT SWITCH
$	LIGHT SWITCH
	DIMMER SWITCH
S	SMOKE DETECTOR, HARDWIRE/ BATTERY BACK-UP
H	HEAT DETECTOR/ THERMAL SHUT-OFF
SC	SMOKE/ CO DETECTOR, DIGITAL READOUT
J	J BOX
	WEATHERPROOF FLOODLIGHT
KSW	KEY SWITCH
PB	PUSH BUTTON
DB	DOOR BELL
JSW	JAMB SWITCH
WP	WEATHERPROOF
EX	EXISTING TO REMAIN

LIGHT FIXTURE SCHEDULE

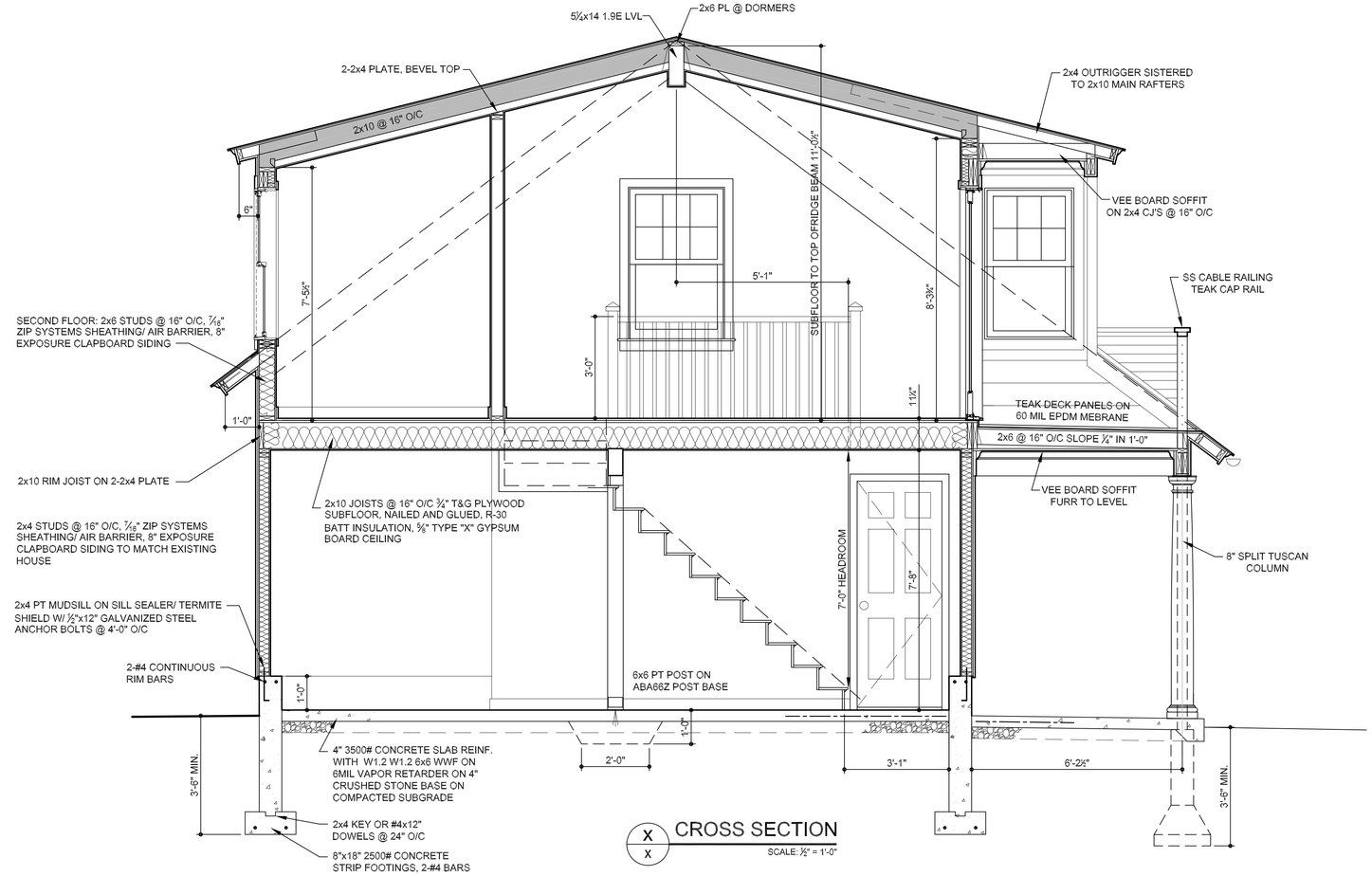
F-1	ENTERIOR LED WALL SCONCE, MAX. 500 LUMENS, 2700K
F-2	DECORATIVE LED CEILING FIXTURE 15W, FURNISHED BY OWNER
F-3	OVERHEAD GARAGE DOOR OPERATOR
F-4	4" MED. BASE LED DOWNLIGHT, SPECULAR CLEAR CONE, 700 LUMENS
F-5	CERAMIC BASE LED UTILITY LIGHT, 1000 LUMENS
F-6	WAC LOTUS R4ERAR, SLOPE CEILING ADJUSTABLE LED
F-7	1500W RECESSSED FAN CONVECTOR
F-8	LED VANITY LIGHT, 1000 LUMENS
F-9	INTERIOR LED WALL SCONCE, 700 LUMENS
F-10	4" MED. BASE EXTERIOR LED DOWNLIGHT, DAMP LOCATION
F-11	100 CFM BATHROOM EXHAUST FAN

ELECTRICAL SCOPE OF WORK:

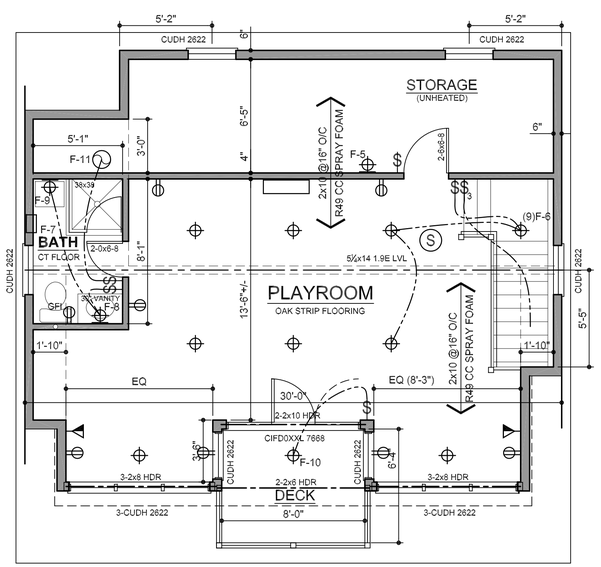
1. ELECTRICAL CONTRACTOR TO PROVIDE ALL ELECTRICAL WORK SHOWN ON THE DRAWINGS AND AS OTHERWISE NECESSARY FOR A COMPLETE AND FUNCTIONING INSTALLATION, INCLUDING ANY PANELS, BREAKERS AND OTHER DEVICES NECESSARY.

ELECTRICAL NOTES:

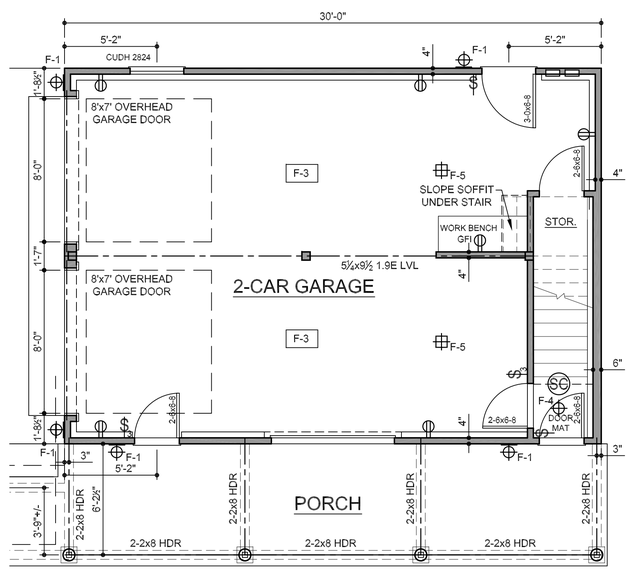
1. ALL WORK TO COMPLY WITH THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE.
2. ALL LIGHT FIXTURES, ELECTRICAL DEVICES AND EQUIPMENT TO BE UL RATED. INITIAL LAMPING (EXCEPT FIXTURES FURNISHED BY OWNER) BY ELECTRICAL CONTRACTOR.
3. ALL SMOKE AND CO DETECTORS TO BE HARD WIRED AND INTERCONNECTED PER NYS CODE.
4. UNLESS OTHERWISE NOTED: OULETS IN LIVING AREAS TO BE LOCATED NOT MORE THAN 12'-0" O/C. OUTLETS AT KITCHEN TO BE NOT MORE THAN 4'-0" O/C, 44" AFF TO CENTER OF DEVICE. OTHER OUTLETS TO BE 16" AFF. SWITCHES TO BE 48" AFF, THERMOSTAT TO BE 60" AFF, SCONCES TO BE 66" AFF, OUTLET AT WASHER AND DRYER TO BE 48" AFF.
5. NOT LESS THAN 75% OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH EFFICACY LAMPS PER SECTION 404.1, 2015 NYS ECCC. (SEE SPECIFICATIONS)



X/X CROSS SECTION
SCALE: ½" = 1'-0"



3/A-1 2ND FLOOR PLAN
SCALE: ¼" = 1'-0"



2/A-1 GARAGE PLAN
SCALE: ¼" = 1'-0"

NYS ENERGY CONSERVATION CONSTRUCTION CODE NOTES:

1. MINIMUM CAVITY INSULATION VALUES TO COMPLY WITH ZONE 4 PER TABLE 402.1.1 NYS ECCC CODE (PRESCRIPTIVE METHOD).
2. PLACE INSULATION WITH VAPOR BARRIER AT HEATED SIDE OF ASSEMBLY.
3. FILL ANY CAVITIES EXPOSED IN EXISTING FRAMING TO EXTERIOR WITH FIBERGLASS BATT INSULATION.

HEATING, VENTILATING, AIR CONDITIONING SCOPE OF WORK

1. NEW SECOND FLOOR IS TO BE SERVED BY A HIGH-EFFICIENCY HEAT PUMP WITH AN INVERTER VRF COMPRESSOR AND A WALL MOUNTED INDOOR UNIT. PROVIDE UNIT MANUFACTURED BY DAIKIN, MITSUBISHI/TRANE OR GREE. HEAT PUMP TO BE RATED AT NOT LESS THAN 16 S.E.E.R. AND 9 HSPF. OUTDOOR UNIT IS TO BE PAD MOUNTED IN LOCATION INDICATED.

PLUMBING SCOPE OF WORK:

1. PLUMBING CONTRACTOR TO PROVIDE ALL PLUMBING WORK SHOWN ON THE PLANS, INCLUDING BUT NOT LIMITED TO: SECOND FLOOR BATHROOM.

#	ISSUE	DATE
1	PERMITS	8-2-2021

PAUL DENNIS, NEW YORK A-16781

PAUL DENNIS, A.I.A.
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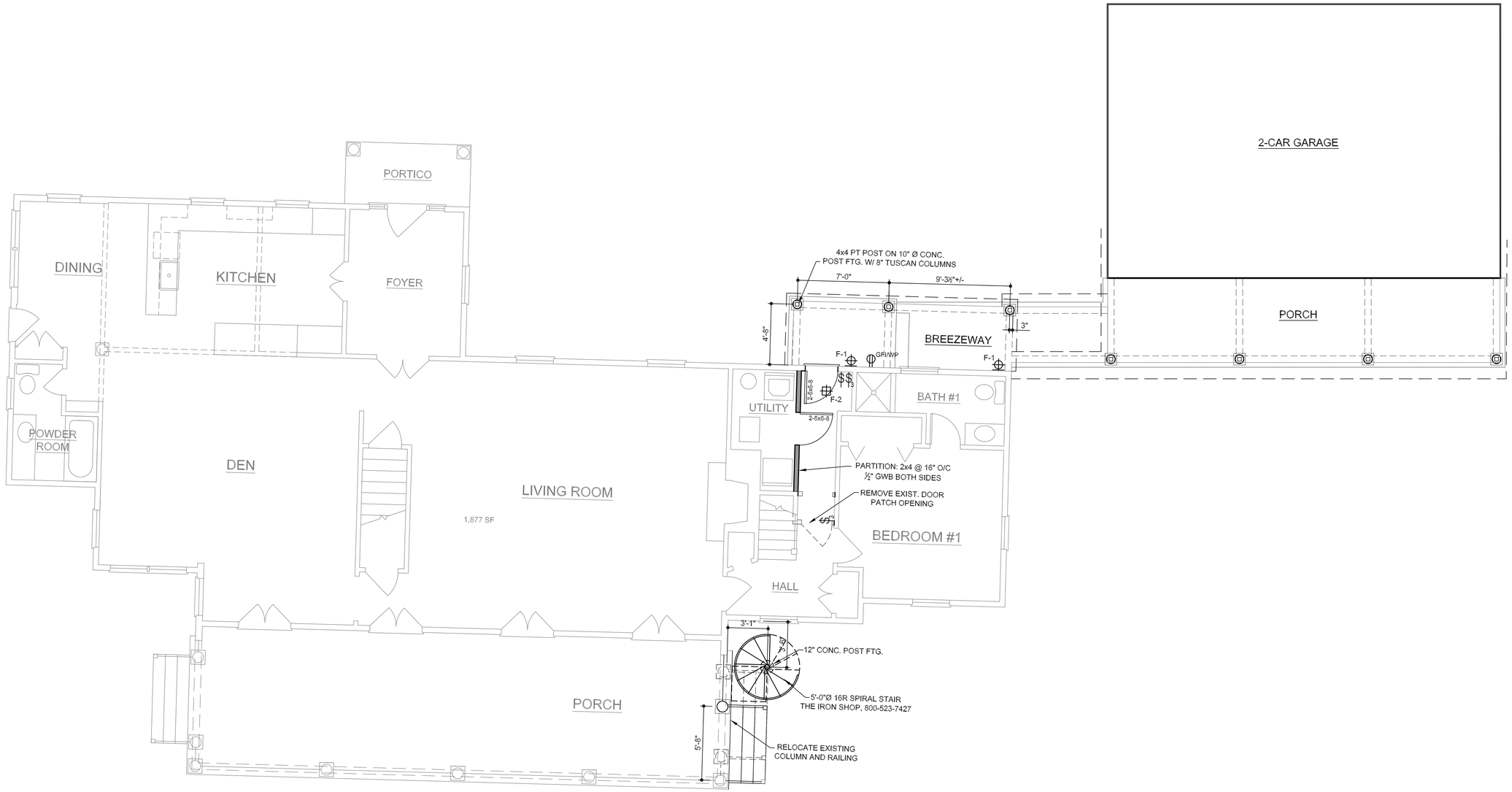
914-763-0959
pauldennis.architects@gmail.com

GARAGE REBUILD
12 GILBERT STREET
SOUTH SALEM, NY 10590

TITLE
SECTION
ELECTRICAL

DATE	MAY 22, 2021
SCALE	1/4" = 1'-0", U.O.N.
DRAWN BY	LP/ PD
CHECKED BY	
JOB	2295
DRAWING #	A-3
SHEET 1 OF 5	



#	ISSUE	DATE
1	PERMITS	8-2-2021

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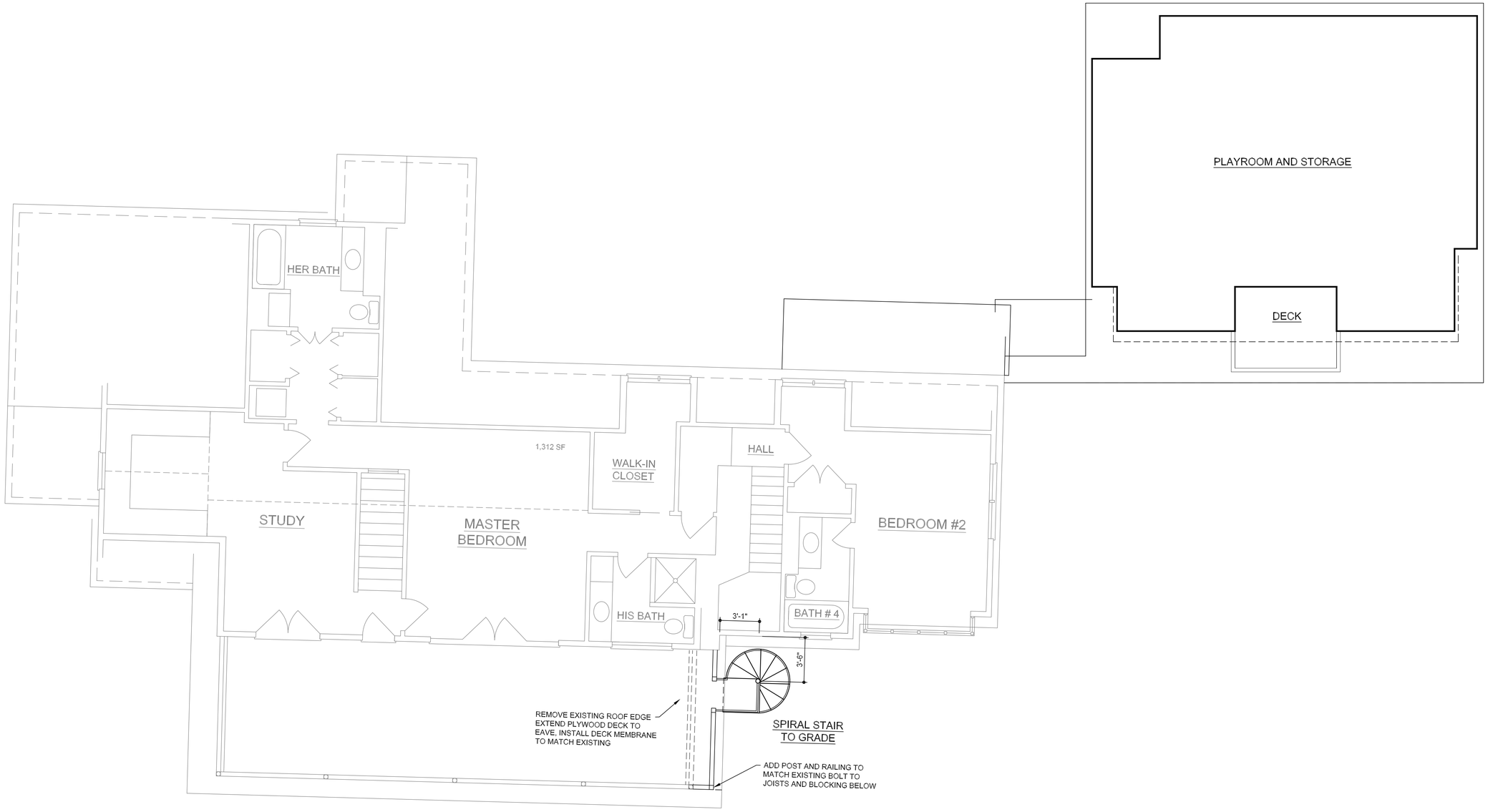
pauldennis.architects@gmail.com

GARAGE REBUILD
12 GILBERT STREET
SOUTH SALEM, NY 10590

TITLE

EXISTING HOUSE
FIRST FLOOR

DATE	MAY 22, 2021
SCALE	1/4" = 1'-0", U.O.N.
DRAWN BY	LP/ PD
CHECKED BY	
JOB 2295	DRAWING # A-4
SHEET 4 OF 5	



#	ISSUE	DATE
1	PERMITS	8-2-2021

PAUL DENNIS, NEW YORK A-16781

PAUL DENNIS, A.I.A.
ARCHITECTS
26 GILBERT STREET, SOUTH SALEM, NY 10590
914-763-0959
pauldennis.architects@gmail.com

GARAGE REBUILD
12 GILBERT STREET
SOUTH SALEM, NY 10590

TITLE
EXISTING HOUSE
SECOND FLOOR

DATE	MAY 22, 2021
SCALE	1/4" = 1'-0", U.O.N.
DRAWN BY	LP/ PD
CHECKED BY	
JOB 2295	DRAWING # A-5
SHEET 5 OF 5	

KELLARD SESSIONS

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

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: May 13, 2022

RE: Wetland and Stormwater Permit
James Rini and Elizabeth Rangel
15 Benedict Road
Sheet 33, Block 11155, Lot 10

PROJECT DESCRIPTION

The subject property consists of ±1.546 acres of land and is located at 15 Benedict Road within the R-2A Zoning District. The subject property is developed with a single-family residence, septic system, well, and driveway off Benedict Road. The applicant is proposed a detached garage/cabana, inground swimming pool, driveway reconfigurations, patios, walkways, and other landscape features. The Waccabuc River is located immediately west of the subject parcel and property contains wetlands that are jurisdictional to the Town and the New York State Department of Environmental Conservation (NYSDEC); all of the proposed improvements are located within the Town's 150-foot wetland buffer. The project will result in 10,450 s.f. of added impervious cover within the wetland buffer and the applicant is proposing an infiltration system to mitigate stormwater runoff impacts.

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. A Floodplain Development Permit is required from the Building Inspector.

3. An Article 24 Freshwater Wetland Permit is required from the New York State Department of Environmental Conservation (NYSDEC).

4. 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. This office defers review of the plan for zoning compliance to the Building Inspector. It is recommended that the application be referred to the Building Inspector for review.

2. The applicant shall submit the property deed.

3. The applicant shall submit an updated existing condition survey (boundary and 2-foot contours), signed and sealed by a NYS Licensed Land Surveyor. The survey shall include all above ground features, trees, wetland, and topography.

4. The applicant shall submit a Wetland Report, which shall contain the information required under Sections 217-5 and 6 of the Town's wetland ordinance.

5. The applicant is proposing over 10,000 s.f. of additional impervious surface within the wetland buffer, efforts should be made to reduce the extent of cover. Further, consideration should be given to relocating portion of the existing driveway further from the wetland boundary (toward the residence).

6. 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. The submitted mitigation plan requires refinement.

7. On-site wetlands are jurisdictional to the NYSDEC and the wetland boundary must be verified and validated by same. Please submit a Wetland Boundary Map, including a fully executed copy of the NYSDEC Wetland Validation Block.

8. Portions of the property are located within the 100-year FEMA Floodplain. The floodplain boundary shall be depicted on the plan as should the base flood elevation. A Floodplain Development Permit will be required in accordance with Chapter 126 of the Town Code.

9. The plan shall show the existing well and existing septic areas (primary and expansion) to be cordoned off during construction.

10. Land disturbance is proposed to exceed ≥5,000 s.f. and will therefore require conformance with NYSDEC SPDES General Permit (GP-0-20-001) and filing of a Notice of Intent (NOI) and MS4 Acceptance Form with the NYSDEC. Submit draft copies to this office for review.

11. 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.

12. The plan shall provide details for the proposed outlet control structure (PTF A-2) and the proposed level spreader. The level spreader shall be aligned in parallel with the existing contours.

13. The Existing and Proposed drainage maps differ in the total area being used. Please clarify. The drainage maps also appear to capture neighboring property to the east. Please correct.

14. The plan shall note that disturbance limits shall be staked in the field prior to construction by a qualified professional.

15. The existing conditions plan sheet C-100 should depict all proposed removals.

16. The plan shall include how the area of removed driveway will be restored.

17. The plan shall demonstrate compliance with all applicable Westchester County Department of Health (WCDH) separation distance requirements between septic, wells, stormwater, pools, etc.

18. 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.

19. The plan shall illustrate the location of all existing and proposed utilities (electric, water, gas, etc.).

20. Provide architectural floor plans and elevations of new buildings, signed and sealed by a NYS Licensed Architect.

21. Topography is taken from Westchester County GIS; survey topo shall be utilized for the design.

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 ALP ENGINEERING, DATED APRIL 11, 2022:

- Existing Condition (C-100)
- Site Plan (C-101)
- Erosion and Sediment Control Plan (C-102)
- Construction Details (C-111)
- Existing Condition Wetland Buffer Impacts (Exhibit 1)
- Future Condition Wetland Buffer Impacts (Exhibit 2)

DOCUMENTS REVIEWED:

- Letter, prepared by ALP Engineering, dated April 12, 2022
- Wetland Permit Application
- Stormwater Permit Application
- Stormwater Management Report, prepared by ALP Engineering, dated April 11, 2022

JKJ/dc

TO: The Town of Lewisboro Planning Board

FROM: Lewisboro Conservation Advisory Council

SUBJECT: Rini/Langel Residence,15 Benedict Road, South Salem, NY 10590

DATE: May 10, 2022

The Conservation Advisory Council (CAC) has reviewed the materials submitted by the applicant for the construction of garage/cabana, pool and patio. The new construction is within the wetland buffer.

The applicant submitted a detailed wetland mitigation and stormwater management plan. Elements of the stormwater management system, such as the level spreader are deep in the buffer and near the Waccabuc River. The CAC would like to see those moved further from the wetland. For the wetland mitigation plan, the CAC would like to see a demarcation line between lawn and planting to ensure the plan is preserved. The type of water used in the pool should be identified for impact on draw down. The CAC would also like to understand how steep slopes on the property effect both wetland and storm water. A site visit would be useful.

Finally, the CAC believes that a similar proposal was presented and turned down by the Planning Board in the past. The CAC would like to understand the difference between this proposal and the prior one.

ALP Engineering
& Landscape Architecture, PLLC

April 12, 2022

Hon. Janet Andersen, Chairwoman and Members of the Planning Board
Town of Lewisboro
79 Bouton Road
South Salem, NY 10590

Re: 15 Benedict Road
Sheet 33, Block 11155, Lot 10
Application for Wetlands and Stormwater Management Permits

Dear Chairwoman Andersen and Members of the Planning Board:

We are pleased to submit four (4) copies of the following drawings in support of this application by James Rini and Elizabeth Langel, the owners of the property located 15 Benedict Road for Wetlands and Stormwater Management Permits:

Drawing No.:	Drawing Title:	Date:
Dwg. C-100	Existing Conditions Plan	04/11/2022
Dwg. C-101	Site Plan	04/11/2022
Dwg. C-102	Erosion and Sediment Control Plan	04/11/2022
Dwg. C-111	Construction Details	04/11/2022

In addition, we are submitting the following permit applications and supporting documentation:

- Wetland Permit Application Form, dated 04/09/2022.
- Stormwater Permit Application form, dated 04/11/2022.
- Environmental Questionnaire Form, dated 04/11/2022.
- Stormwater Management Report for 15 Benedict Road, dated 04/11/2022.
- Exhibit 1, Existing Condition Wetland Buffer Impacts, undated.
- Exhibit 2, Future Condition Wetland Buffer Impacts, undated.

This application is being made for the above-noted permits for the following: (i) construction of a garage/cabana building, (ii) construction of a pool and pool patio, (iii) extension of an existing patio in the rear of the house, and (iv) driveway modifications for access to the new garage.

P.O. Box 843 Ridgefield, CT 06877
EAEC Office: 162 Falls Road Bethany, CT 06524
Direct: (475) 215-5343 Mobile: (203) 710-0587
EAEC Tel: (203) 393-0690 x114
Email: alan@eaec-inc.com

Existing Conditions - The subject property is 67,336 square feet (1.546 acres) in size and is located on the north side of Benedict Road. The property is essentially a rectangle, about 363 feet in depth by about 180 feet in width. At present, there is a 1-1/2 story frame residence in the central portion of the property, and an existing cottage/toolshed building along the eastern property line. The subject property is zoned R-2A, Two Acre Residential District Zone.

Wetlands are located to the west, north and south of the property. However, only the wetland on the west actually is present on the property; the others are all located off-site. The Waccabuc River is located just west of the property. The wetland to the north appears to be regulated also by the State of New York; according to the Environmental Resource Mapper, it is identified as Wetland L-14. All but 875 square feet of the property lies within the Town regulated 150-foot wetland buffer. The house, driveway and all of the existing site improvements all lie within the Town wetland buffer.

The remainder of the property features the typical residential landscape of lawn, trees and shrubs. The southwestern portion of the property to the west of the driveway and including the wetland is wooded. Beyond the lawn area in the northern portion of the property, there are scattered trees and brush.

Project Proposal - As is noted above, it is proposed to: (i) construct a garage/cabana building – there is no garage on the property at present, so vehicles are left to the elements in all weather conditions, (ii) construct a pool and pool patio to the north of the house, (iii) extend an existing patio in the rear of the house by 12 feet, and (iv) modify the driveway for access to the new garage. A significant portion of the existing paved driveway which extends to the south façade of the house will be removed as part of the work. Access to the property would continue to be obtained from the existing driveway to Benedict Road. It is not proposed to modify the existing cottage/toolshed building.

An application is simultaneously being made to the Zoning Board of Appeals for the construction of the garage/cabana building, since the footprint of the building, which is to be 1,135 square feet in its footprint, will require a size variance.

Wetland Permit Application – All of the proposed construction will take place within the Town regulated 150-foot buffer. Due to the presence of wetlands to the north, west and south, it is not possible to avoid construction within the Town regulated area. No direct wetland impacts are proposed. It is also not proposed to perform any land disturbance, except for mitigation planting for impacts within the Town's wetland buffer, within the State regulated 100-foot buffer.

At present, as shown on the enclosed Exhibit 1, there are 9,456 square feet of impervious surfaces within the Town regulated buffer. Exhibit 2 shows graphically the proposed impacts within the wetland buffer. With the construction of the garage/cabana, driveway modifications, extension of the patio, and construction of the pool and pool patio, the amount of impervious surfaces within the Town regulated buffer will increase to 19,996 square feet, an increase of 10,450 square feet.

Mitigation for Impacts in the Wetland Buffer - Mitigation for impacts within the wetland buffer include the planting of native trees, shrubs and herbaceous species in the State and Town wetland buffer in the northern portion of the property. The area to be planted is proposed to be 11,100 square feet. A plant list of species to be installed is provided. In addition to the planting, it is proposed to remove about 1,509 square feet of existing paved driveway (see Sheet C-101).

Stormwater Management Plan - To manage runoff from the property, 30 Cultec 100HD chambers (6 rows of 5 chambers end-to-end) will be installed. With the installation of the stormwater management practice, the peak rate of runoff from the property to the design points (see the enclosed Stormwater Management Report) will be less than the existing condition. Runoff from the chambers will be conveyed to an outlet control structure and then discharged to a level spreader which is located within the Town's wetland buffer, but outside of the State wetland adjacent area. The proposed chambers will also serve to infiltrate 6 inches of pool drawdown water into the site's soils.

We look forward to your review of the plans and applications. If you have any questions regarding this submission, please feel free to call me at (475) 215-5343.

Sincerely,

ALP ENGINEERING & LANDSCAPE ARCHITECTURE, PLLC

Alan L. Pilch, P.E., R.L.A.
Principal

cc: Jan Johannessen, AICP
James Rini and Elizabeth Langel
Ken Andersen
Michael Sirignano, Esq.

Application No.: _____
Fee: _____ Date: _____

TOWN OF LEWISBORO
WETLAND PERMIT APPLICATION

79 Bouton Road, South Salem, NY 10590
Phone: (914) 763-5592
Fax: (914) 875-9148

Project Address: 15 Benedict Road, South Salem

Sheet: 33 Block: 11155 Lot(s): 10

Project Description (Identify the improvements proposed within the wetland/wetland buffer and the approximate amount of wetland/wetland buffer disturbance): Construction of a garage/cabana bldg., pool and pool patio, and driveway modifications. No direct wetland impacts; 1,990 s.f. net impacts in wetland buffer.

Owner's Name: James Rini and Elizabeth Langel Phone: (914) 720-9985
jrini98@yahoo.com
Owner's Address: 15 Benedict Avenue, South Salem Email: elangel@heidrick.com

Applicant's Name (if different): _____ Phone: _____

Applicant's Address: _____ Email: _____

Agent's Name (if applicable): Alan L. Pilch, PE, RLA Phone: (475) 215-5343

Agent's Address: P.O. Box 843, Ridgefield, CT 06877 Email: alan@eaec-inc.com

TO BE COMPLETED BY OWNER/APPLICANT

What type of Wetland Permit is required? (see §217-5C and §217-5D of the Town Code)

☐ Administrative ☒ Planning Board

Is the project located within the NYCDEP Watershed? ☒ Yes ☐ No

Total area of proposed disturbance: ☐ < 5,000 s.f. ☒ 5,000 s.f. - < 1 acre ☐ ≥1 acre

Does the proposed action require any other permits/approvals from other agencies/departments? (Planning Board, Town Board, Zoning Board of Appeals, Building Department, Town Highway, ACARC, NYSDEC, NYCDEP, WCDOH, NYSDOT, etc): Identify all other permits/approvals required: Accessory Bldg. Size Variance (Bd of Appeals), Building Permit (Bldg Dept.), NYSDEC (SPDES General Permit) Article 15 Permit (NYSDEC)

Note: Initially, all applications shall be submitted with a plan that illustrates the existing conditions and proposed improvements. Said plan must include a line which encircles the total area of proposed land disturbance and the approximate area of disturbance must be calculated (square feet). The Planning Board and/or Town Wetland Inspector may require additional materials, information, reports and plans, as determined necessary, to review and evaluate the proposed action. If the proposed action requires a Planning Board Wetland Permit, the application materials outlined under §217-7 of the Town Code must be submitted, unless waived by the Planning Board. The Planning Board may establish an initial escrow deposit to cover the cost of application/plan review and inspections conducted by the Town's consultants.

For administrative wetland permits, see attached Administrative Wetland Permit Fee Schedule.

Owner Signature: _____ Date: 4/9/22

Application No.: _____
Fee: _____ Date: _____

TOWN OF LEWISBORO
STORMWATER PERMIT APPLICATION

79 Bouton Road, South Salem, NY 10590
Phone: (914) 763-5592
Fax: (914) 875-9148

Project Address: 15 Benedict Road

Sheet: 33 Block: 11155 Lot(s): 10

Project Description (describe overall project including all proposed land development activities):
Construction of a garage/cabana building, pool and pool patio, and driveway modifications.

Owner's Name: James Rini and Elizabeth Langel Phone: (914) 720-9985
jrini98@yahoo.com
Owner's Address: 15 Benedict Road, South Salem Email: elangel@heidrick.com

Applicant's Name (if different): (same as owner) Phone: _____

Applicant's Address: _____ Email: _____

Agent's Name (if applicable): Alan L. Pilch, PE, RLA Phone: (475) 215-5343

Agent's Address: P.O. Box 843, Ridgefield, CT 06877 Email: alan@eaec-inc.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: Accessory Bldg. Size Variance (Bd of Appeals), Building Permit (Building Dept.), NYSDEC (SPDES General Permit), Article 15 Permit (NYSDEC)

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: Alan Pilch (agent for owner) Date: 4/11/2022

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592 Fax: (914) 875-9148

Tax Payment Affidavit Requirement

This form must accompany all applications to the Planning Board.

Under regulations adopted by the Town of Lewisboro, the Planning Board may not accept any application unless an affidavit from the Town of Lewisboro Receiver of Taxes is on file in the Planning Board office. The affidavit must show that all amounts due to the Town of Lewisboro as real estate taxes and special assessments on the total area encompassed by the application, together with all penalties and interest thereon, have been paid.

Under New York State law, the Westchester County Clerk may not accept any subdivision map for filing unless the same type of affidavit from the Town of Lewisboro Receiver of Taxes is submitted by the applicant at the time of filing.

This form must be completed by the applicant and must accompany all applications to the Planning Board. Upon receipt, the Planning Board Secretary will send the form to the Receiver of Taxes for signature and notarization. If preferred, the applicant may directly obtain the signature of the Receiver of Taxes and notarization prior to submission.

To Be Completed by Applicant
(Please type or print)

James Rini and Elizabeth Langel
Name of Applicant

Rini Residence
Project Name

Property Description

Tax Block(s): 11155

Tax Lot(s): 10

Tax Sheet(s): 33

Property Assessed to:

James Rini and Elizabeth Langel
Name

15 Benedict Rd
Address

South Salem NY 10590
City *State* *Zip*

The undersigned, being duly sworn deposes and says that a search of the tax records in the office of the Receiver of Taxes, Town of Lewisboro, reveals that all amounts due to the Town of Lewisboro as real estate taxes and special assessments, together with all penalties and interest thereon, affecting the premises described below, have been paid.

Signature - Receiver of Taxes: [signature] *Date* 4/12/2022

Sworn to before me this 12th **day of** April, 2022

[signature]
Signature - Notary Public (affix stamp)

JANET L. DONOHUE
NOTARY PUBLIC, STATE OF NEW YORK
No. 01DO6259627
Qualified in Westchester County
Commission Expires April 16, 2020

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592
Fax: (914) 875-9148

Affidavit of Ownership

State of: New York

County of: Westchester

James Rini and Elizabeth Langel, being duly sworn, deposes and says that he/she resides at 15 Benedict Road, South Salem in the County of Westchester, State of New York and that he/she is (check one) ✓ the owner, or ____ the _____ (*Title*) of _____ (*Name of corporation, partnership, or other legal entity*) which is the owner, in fee of all that certain log, piece or parcel of land situated, lying and being in the Town of Lewisboro, New York, aforesaid and know and designated on the Tax Map in the Town of Lewisboro as:

Block 11155, Lot 10, on Sheet 33.

James Rini E. Langel
Owner's Signature

E. Langel
E. Langel

Sworn to before me this
13 **day of** April, 2022

ROBIN SUE HARRIS
Notary Public, State of New York
No. 05HA6359305
Qualified in Westchester County
Commission Expires May 30, 2023

Notary Public – affix stamp

Revised 2-2019

Fee: _____ Date: 04/11/2022

TOWN OF LEWISBORO
ENVIRONMENTAL QUESTIONNAIRE

The purpose of this Questionnaire is to determine whether a Town Wetland Permit, a Town Stormwater Permit and/or coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity is required. This form does not provide authorization to commence work.

Project Address: 15 Benedict Road

Sheet: 33 Block: 11155 Lot(s): 10

Project Description: Construction of a garage/cabana building, pool and pool patio, extension of an existing patio, and driveway modifications.

This questionnaire must be accompanied with a Site Plan or, at a minimum, a Plot Plan which clearly illustrates the location and dimensions of the proposed activity. Said plans must include a line which encircles the total area of proposed land disturbance and the approximate area of disturbance must be calculated (square feet). Failure to submit these items will delay review.

Owner's Name: James Rini and Elizabeth Langel Phone: (914) 720-9985

Owner's Address: 15 Benedict Road, South Salem Email: jrini98@yahoo.com elangel@heidrick.com

Agent's Name (if applicable): Alan L. Pilch, PE, RLA Phone: (475) 215-5343

Agent's Address: P.O. Box 843, Ridgefield, CT 06877 Email: alan@eaec-inc.com

I hereby grant permission to the Town's professional consultants to enter onto my property to conduct a site inspection.

Owner (Signature): Alan L. Pilch (agent for owner) Date: 04/11/2022

FOR TOWN USE – PLEASE DO NOT WRITE BELOW THIS LINE

1. The use of the property is? □ Residential □ Nonresidential

2. Is a Town Wetland Permit required? □ Yes □ No □ TBD
   If Yes, what type of Wetland Permit is required? □ Administrative □ Planning Board □ TBD

3. Is the project located within the NYCDEP Watershed? □ Yes □ No

4. Area of proposed disturbance: □ < 5,000 s.f. □ 5,000 s.f. - < 1 acre □ ≥1 acre □ TBD

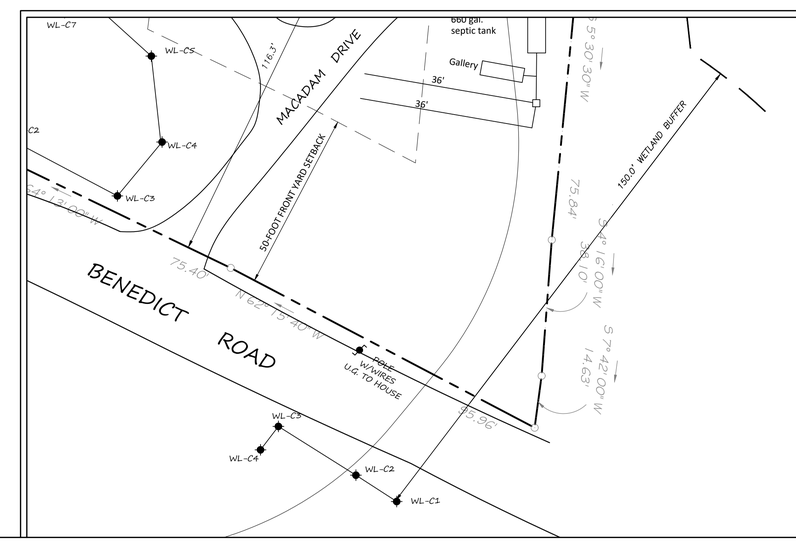
5. Is a Town Stormwater Permit required? □ Yes □ No □ TBD
   If Yes, the approval authority will be? □ Town Engineer/SMO □ Planning Board □ TBD

6. Will the project require coverage under the NYSDEC General Permit for Stormwater Discharges from Construction Activity? □ Yes □ No □ Requires post-construction stormwater practice

Application Fee (if required): **Wetland Permit** $: _____ **Stormwater Permit** $: _____

Notes: _____

Signature: _____ Date: _____
Wetland Inspector/Consultant



Civil engineer:
Alan L. Pilch
ALP Engineering & Landscape Architecture, PLLC
P.O. Box 843, Ridgefield, CT 06877
162 Falls Road, Bethany, CT 06524
P.E. #30167
C. of A. #0016331
Tel: (475) 215-5343

OWNER & APPLICANT:
James Rini and Elizabeth Langel
15 Benedict Road
South Salem, NY 10590

CONSULTANTS:
ARCHITECT:
GRANOFF ARCHITECTS
330 Railroad Avenue
Greenwich, CT 06830
Tel: (203) 625-9460

ISSUED:

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:

STATE OF NEW YORK · ALAN L. PILCH · No. 080187 · LICENSED PROFESSIONAL ENGINEER

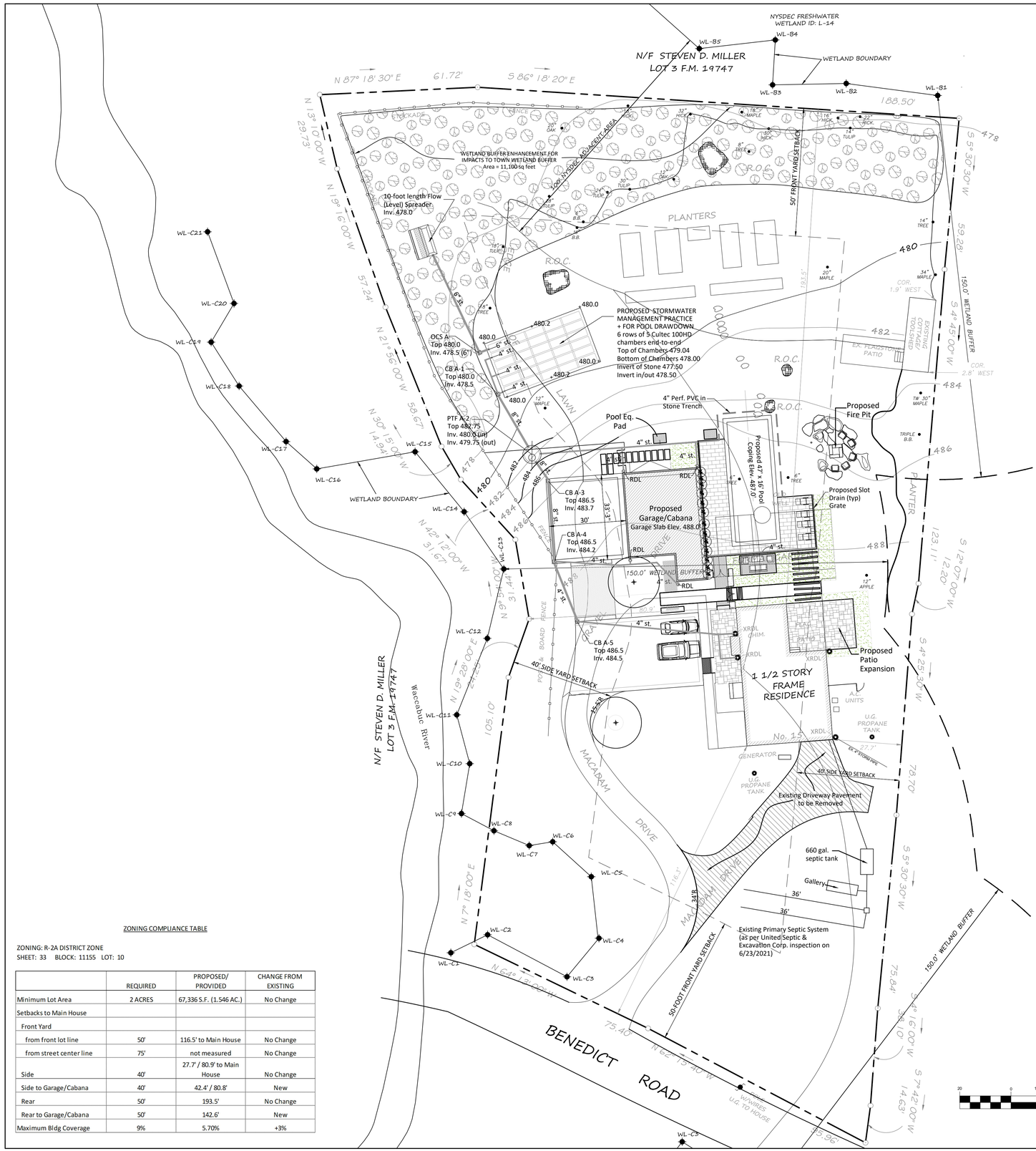
PROJECT NAME:
RINI-LANGEL PROPERTY
15 Benedict Road
South Salem, New York 10590

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:
Existing Condition

Date: April 11, 2022
Dwn. by: alp
ID: 15 Benedict_04-11-2022.1

C-100



PLANT LIST FOR WETLAND BUFFER MITIGATION AREA	
BOTANICAL NAME	COMMON NAME
Acer rubrum	Red Maple
Acer saccharum	Sugar Maple
Amelanchier canadensis	Shadblow
Aronia arbutifolia	Red Chokeberry
Betula lenta	Sweet Birch
Carpinus caroliniana	American Hornbeam
Clethra alnifolia	Summersweet Clethra
Cornus amomum	Gray Dogwood
Cornus racemosa	Silky Dogwood
Cornus sericea	Red Osier Dogwood
Hamamelis virginiana	Witch Hazel
Juniperus virginiana	Eastern Redcedar
Kalmia latifolia	Mountain Laurel
Myrica pensylvanica	Northern Bayberry
Nyssa sylvatica	Tupelo
Picea pungens	Blue Spruce
Rhododendron PJM	PJM Rhododendron
Quercus rubra	Red Oak
Quercus palustris	Pin Oak
Viburnum acerifolium	Mapleleaf Viburnum

LEGEND

- PROPERTY LINE
- 482 — EXISTING CONTOUR
- + 482.5 — PROPOSED SPOT ELEVATION
- 480 — PROPOSED CONTOUR
- CB — CATCH BASIN
- STORM PIPE
- L/D — PROPOSED LIMIT OF DISTURBANCE
- PROPOSED MITIGATION PLANTING AREA
- 12" MAPLE — EXISTING TREE
- 12" MAPLE — EXISTING TREE TO BE REMOVED

ZONING COMPLIANCE TABLE

ZONING: R-2A DISTRICT ZONE
SHEET: 33 BLOCK: 11155 LOT: 10

	REQUIRED	PROPOSED/ PROVIDED	CHANGE FROM EXISTING
Minimum Lot Area	2 ACRES	67,336 S.F. (1.546 AC.)	No Change
Setbacks to Main House			
Front Yard			
from front lot line	50'	116.5' to Main House	No Change
from street center line	75'	not measured	No Change
Side	40'	27.7' / 80.9' to Main House	No Change
Side to Garage/Cabana	40'	42.4' / 80.8'	New
Rear	50'	193.5'	No Change
Rear to Garage/Cabana	50'	142.6'	New
Maximum Bldg Coverage	9%	5.70%	+3%

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Civil engineer:
Alan L. Pilch
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

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South Salem, NY 10590

CONSULTANTS:
ARCHITECT:
GRANOFF ARCHITECTS
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Tel: (203) 625-9460

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SEAL:

STATE OF NEW YORK · ALAN L. PILCH · No. 080167 · LICENSED PROFESSIONAL ENGINEER

PROJECT NAME:
RINI-LANGEL PROPERTY
15 Benedict Road
South Salem, New York 10590

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:
Site Plan

Date: March 24, 2022
Dwn. by: alp
ID: 15 Benedict_04-11-2022.1

C-101

EROSION CONTROL PLAN LEGEND

	SCE STABILIZED CONSTRUCTION ENTRANCE		CM CONSTRUCTION MATERIALS STORAGE
— sf — sf — sf —	SF SILT FENCE		WM WASTE MATERIALS STORAGE
	SS SOIL STOCKPILE		CW CONCRETE WASHOUT AREA
	IP INLET PROTECTION	— L/D — L/D — L/D —	LIMIT OF DISTURBANCE LINE
			CF CONSTRUCTION FENCE/TREE PROTECTION
		12" MAPLE	EXISTING TREE
		12" MAPLE	EXISTING TREE TO BE REMOVED

NOTES:

1. DISTURBANCE AREA IS CALCULATED TO BE 25,900 SQUARE FEET (0.5946 ACRES)

CONSTRUCTION SEQUENCE NARRATIVE FOR SITE CONSTRUCTION

All erosion and sedimentation control measures and procedures shall comply with the latest edition (2016) of the New York State Department of Environmental Conservation publication Standards and Specifications for Erosion and Sediment Control. Erosion control measures shall be installed prior to the start of construction and maintained in effective condition throughout the construction period.

Land disturbance shall be kept to a minimum. Restabilization and final stabilization of disturbed ground surfaces shall be scheduled as soon as practicable following disturbance.

Notify all appropriate authorities (i.e., Town of Lewisboro Building Department - Telephone: (914-763-3060) at least 48 hours prior to the commencement of site work.

Identify Disturbance Limits - Identify in the field with flagging or markers the limits of the areas to be disturbed within the property in accordance with the drawing C-103.

Call Dig Safe New York - Contractor is required to verify all existing underground and overhead utilities prior to any construction activity by calling Dig Safe New York and conducting one's own due diligence.

Definition: Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

CONSTRUCTION SEQUENCE

Site Preparation - The existing driveway is to be used for access for the site construction activities (see drawing C-102).

Install Erosion and Sediment Control Measures:
Install silt fence as per the instructions of the manufacturer and as shown on the construction details. Silt fence shall be installed in the locations as shown on the drawings. Where one length of silt fence ends and another begins, provide a minimum 10 foot overlap. Additional silt fence may be placed in the field at the discretion of representatives of the approving authorities. Silt fence shall be maintained in operable condition and shall not be removed until disturbed areas are thoroughly stabilized.

Install the stabilized construction entrance in the location shown on the plan and maintain the entrance throughout the duration of the work.

Install construction fencing measures as delineated on the drawings to ensure that impacts to existing site improvements, the existing septic system, trees and vegetation to remain are avoided.

Fence in an area for trash and waste to prevent it from being blown and washed to neighboring properties, the watercourses, or to the public street.

Pool and Garage/Cabana Construction - Following the installation of the soil erosion and sediment controls measures, prepare the garage/cabana building pad area and the area for the new pool and pool patio. Stockpile topsoil and soil/rock removed during excavation and protect the stockpile in the location(s) shown on the drawings and in accordance with the detail. Any excess soil material shall be removed off-site. Construct the new garage/cabana, pool, and grade the area in accordance with the plans (see Drawings C-101 and C-102).

Install Stormwater Management and Drainage Facilities - Storm drainage systems are installed from the lowest to highest elevations. Construct the stormwater management facilities to consist of a bioretention practice, outlet control structure and flow (level) spreader. Install the outlet control structure to the elevations indicated on the plans.

Install Storm Drainage and Pool Winter Drawdown Facilities - The stormwater management facility to consist of subsurface chambers is to be installed to the north of the garage/cabana.
Install the Cultec 280HD chambers in the location depicted on the plans in accordance with the detail (see Sheet C-111), and install the storm pipe and vertical riser and cap to convey runoff from the pool drawdown into the chambers.

Prepare the Disturbed Area for Final Stabilization and Planting - Clean up all residual site debris and litter and prepare all disturbed areas for topsoiling and seeding and/or planting. All disturbed areas are to be seeded with the permanent grass seed mix noted in the specifications.

Restore the permeability of the of all areas that were disturbed by construction activity by following the Soil Restoration steps in accordance with the New York State *Stormwater Management Design Manual*, as follows:

- Apply 3 inches of compost over subsoil.
- Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
- Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.
- Apply topsoil to a depth of 6 inches.
- Vegetate as required by approved plan.
- Provide straw mulch cover over seeded areas.

Remove the erosion control measures only after full vegetative stabilization occurs on the site.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

North

Civil engineer:

Alan L. Pilch
ALP Engineering & Landscape Architecture, PLLC
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P.E. #80167
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SEAL:

STATE OF NEW YORK · ALAN L. PILCH · No. 080167 · LICENSED PROFESSIONAL ENGINEER

PROJECT NAME:
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15 Benedict Road
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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:
Erosion and Sediment Control Plan

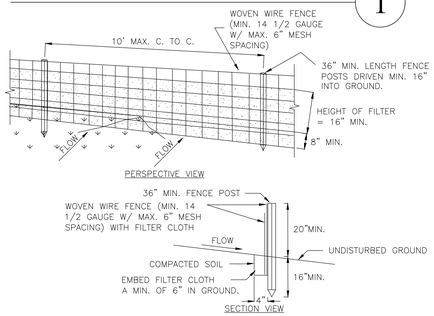
Date: April 11, 2022

Dwn. by: alp

ID: 15 Benedict_04-11-2022.1

C-102

Silt Fence (1)

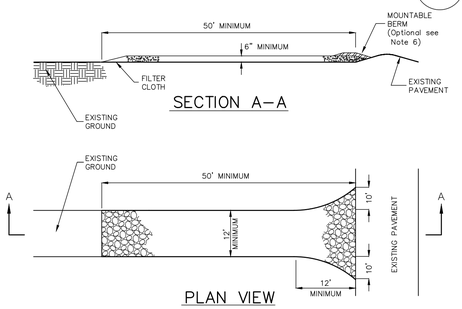


CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	SILT FENCE

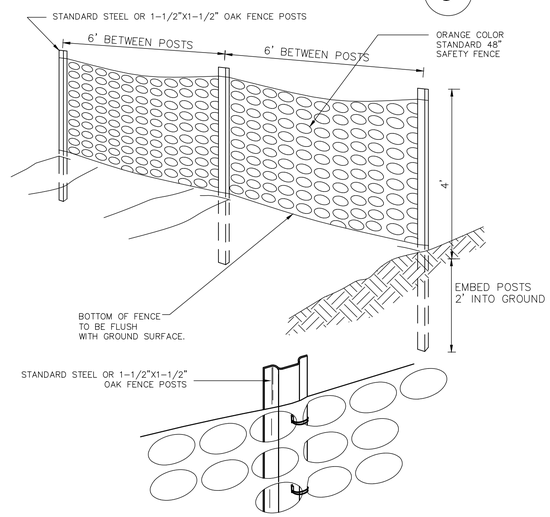
Stabilized Construction Entrance (2)



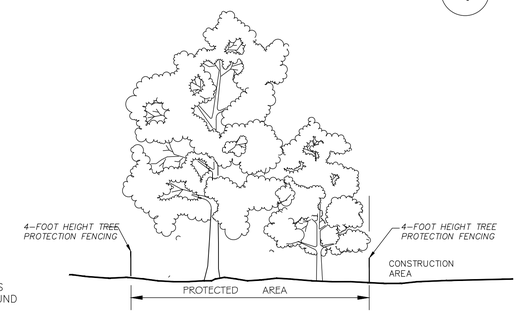
NOTES:

1. STONE SIZE – USE ½" – 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – TO BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DRIPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

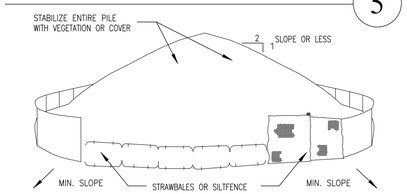
Construction Fence/Tree Protection (3)



Construction Fence/Tree Protection (4)



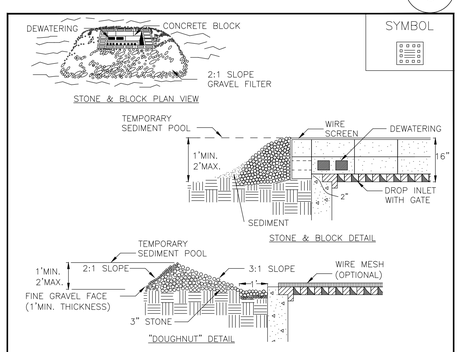
Soil Stockpile (5)



INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING (WHICH IS PREFERRED) OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

Stone and Block Drop Inlet Protection (6)



CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

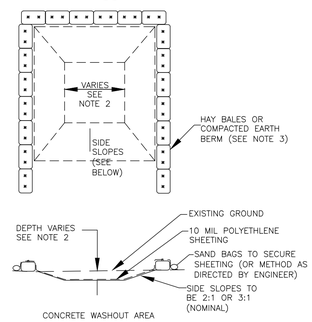
MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	STONE & BLOCK DROP INLET PROTECTION

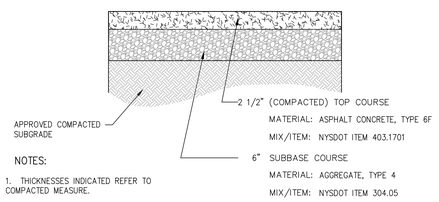
Concrete Washout Area (7)

NOTES:

1. Concrete washout areas shall be installed prior to concrete placement of on-site. The concrete washout area shall be entirely self-contained.
2. The contractor shall submit the design, location and sizing of the concrete washout area(s) with the project's erosion and sedimentation control plan and shall be approved by the engineer. Location: Washout area(s) are to be located at least 50 feet from any stream, wetland, storm drains, or other sensitive resource. The flood contingency plan must address the concrete washout if the washout is to be located within the floodplain. Size: the washout must have sufficient volume to contain all liquid and concrete waste generated by washout operations including, but not limited to, operations associated with grout and mortar.
3. Surface discharge is unacceptable. Therefore, hay bales or other control measures, as approved by the engineer, should be used around the perimeter of the concrete washout area for containment.
4. Signs should be placed at the construction entrance, at the concrete area(s) and elsewhere as necessary to clearly indicate the location of the concrete washout to operators of concrete trucks and pump rigs. Washout area(s) should be flagged with safety fencing or other approved method.
5. Washout area(s) are to be inspected at least once a week for structural integrity, adequate holding capacity and check for leaks, tears or overflow. (As required by the construction site environmental inspection report, washout areas should be checked after heavy rains.)
6. Hardened concrete waste should be removed and disposed of when the waste has accumulated to half the concrete washout's height. The waste can be stored at an upland location, as approved by the engineer. All concrete waste shall be disposed of in a manner consistent with all applicable laws, regulations and guidelines.
7. Payment for this item is to be included under the general cost of the work for the project, including site restoration.



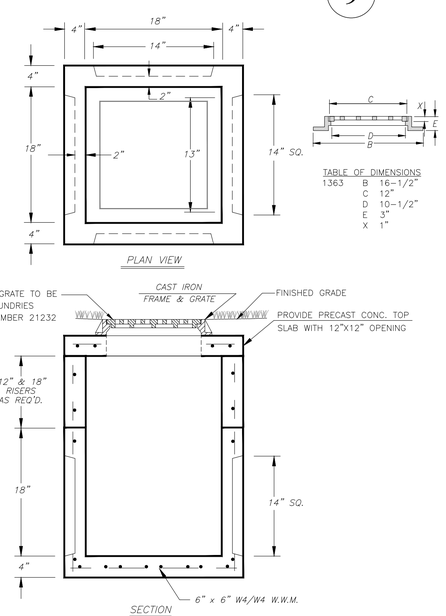
Driveway Pavement (8)



NOTES:

1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. ITEM NUMBERS REFER TO: NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

Catch Basin (9)



NOTES :
*CONCRETE : 4,000 PSI @ 28 DAYS
*REINFORCING : AS PER ASTM A-185
6" x 6" W4/W4 W.W.M.
*WEIGHTS :
CATCH BASIN – 645 LBS.
CONCRETE FLAT TOP ALSO AVAILABLE
180 LBS. (3" THICK)
RISER WEIGHTS : 363 LBS/FT.

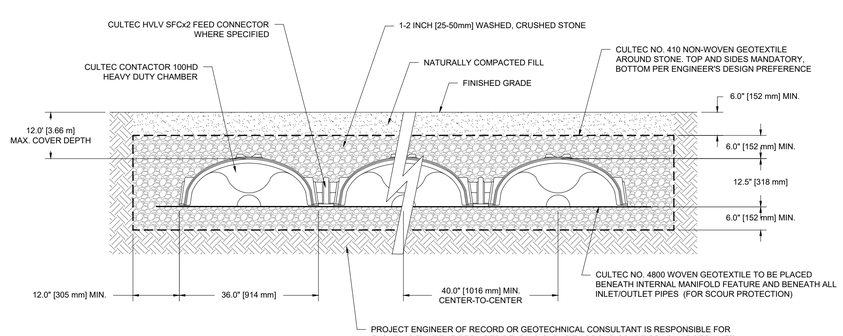
Precast Concrete Sales Co.
123 Route 303 Valley Cottage , N.Y. 10989
Tel. (845) 268-4949 – Fax (845) 268-4376

CONT.	
JOB	

18"x18"x18" KNOCKOUT CATCH BASIN

DATE	DRAWN BY	DRAWING NO.
1/16	CLASSIC DESIGN	218-18

Cultec 100HD Chamber Installation (11)



Civil engineer:

Alan L. Pilch
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

OWNER & APPLICANT:
James Rini and Elizabeth Langel
15 Benedict Road
South Salem, NY 10590

CONSULTANTS:
ARCHITECT:
GRANOFF ARCHITECTS
330 Railroad Avenue
Greenwich, CT 06830
Tel: (203) 625-9460

ISSUED:

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:

STATE OF NEW YORK · ALAN L. PILCH · No. 080167 · LICENSED PROFESSIONAL ENGINEER

PROJECT NAME:
RINI-LANGEL PROPERTY
15 Benedict Road
South Salem, New York 10590

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: April 11, 2022

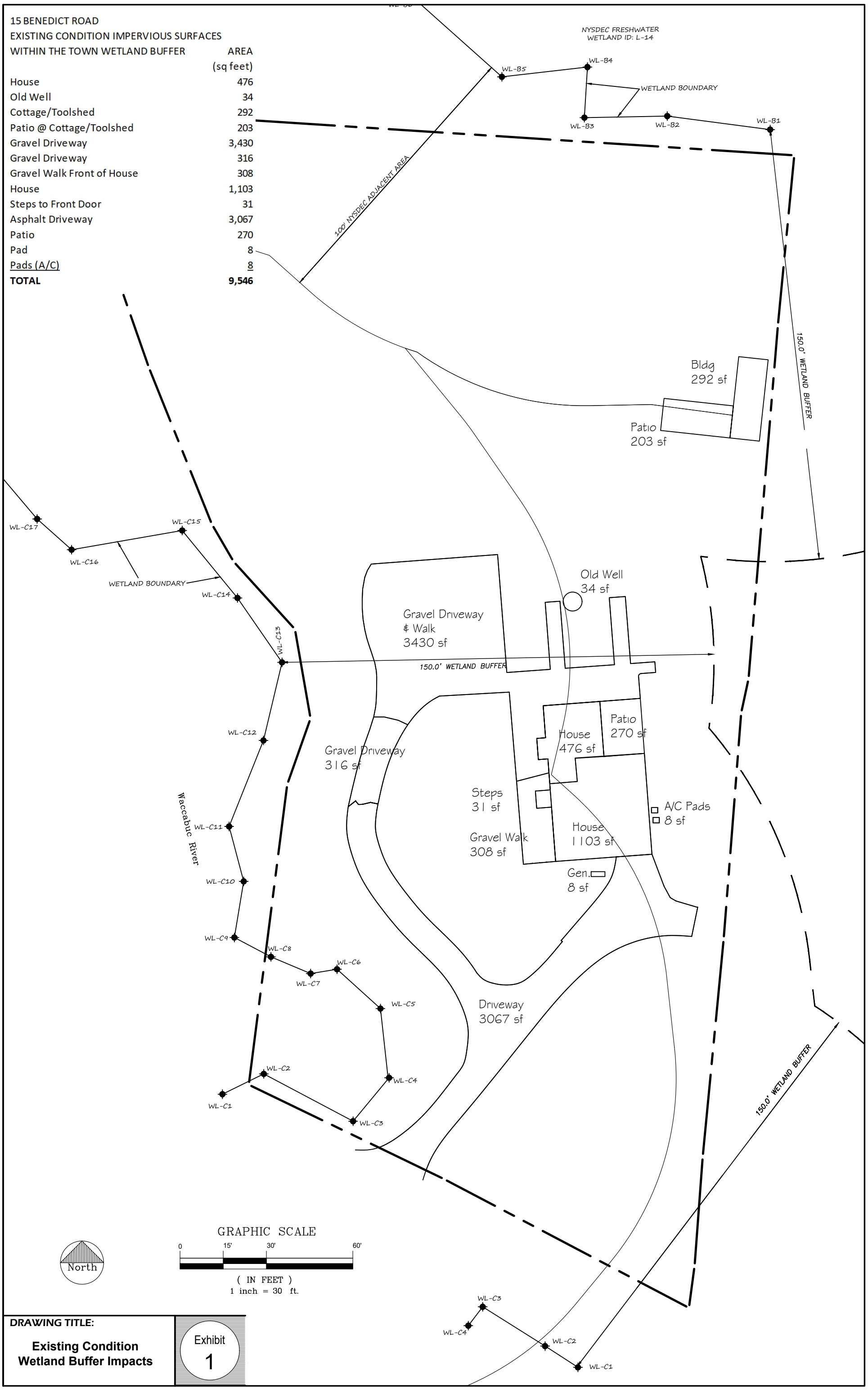
Dwn. by: alp

ID: 15 Benedict_04-11-2022.1

C-111

15 BENEDICT ROAD
EXISTING CONDITION IMPERVIOUS SURFACES
WITHIN THE TOWN WETLAND BUFFER

	AREA (sq feet)
House	476
Old Well	34
Cottage/Toolshed	292
Patio @ Cottage/Toolshed	203
Gravel Driveway	3,430
Gravel Driveway	316
Gravel Walk Front of House	308
House	1,103
Steps to Front Door	31
Asphalt Driveway	3,067
Patio	270
Pad	8
Pads (A/C)	8
TOTAL	**9,546**



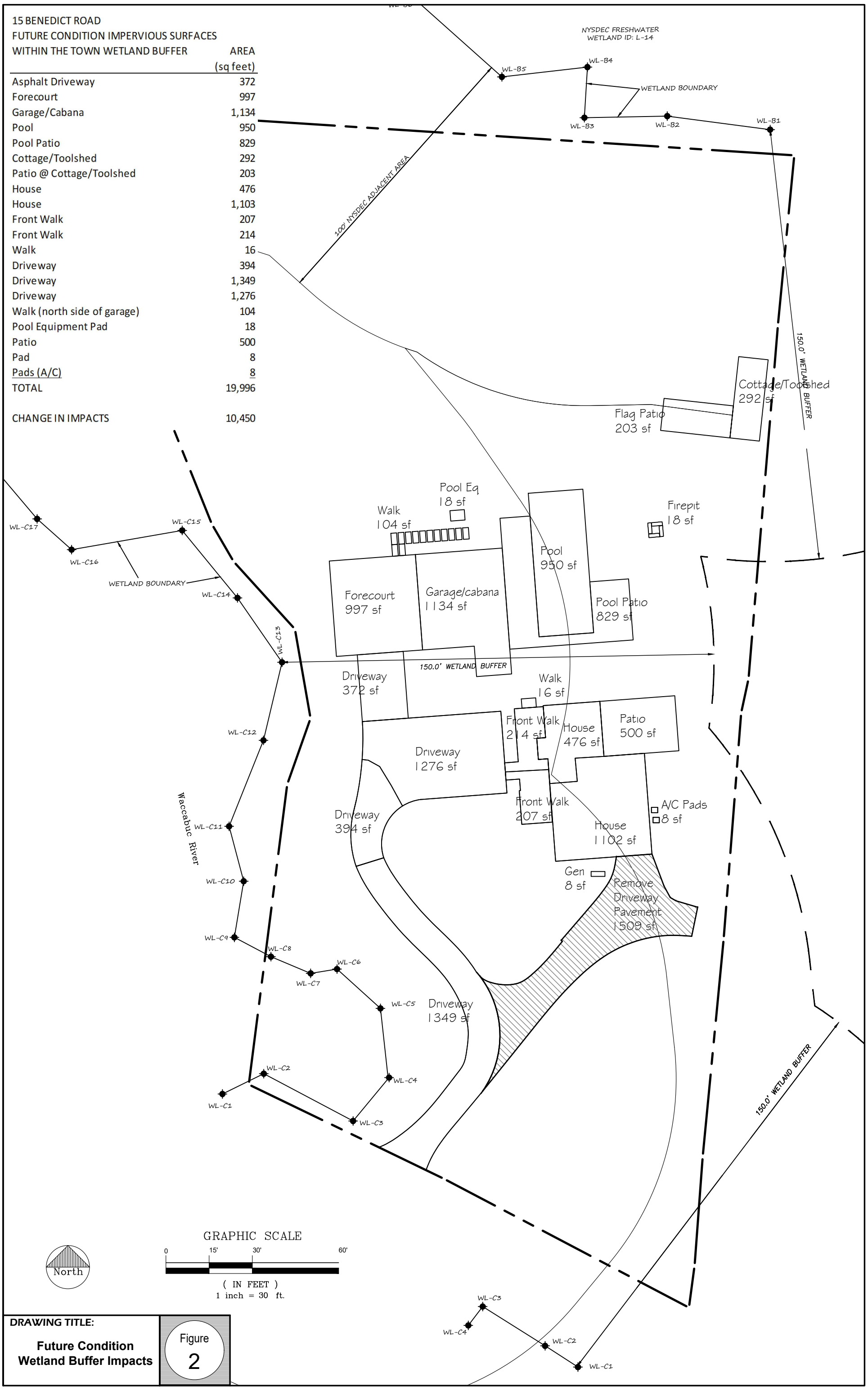
DRAWING TITLE:

Existing Condition Wetland Buffer Impacts

Exhibit 1

15 BENEDICT ROAD
FUTURE CONDITION IMPERVIOUS SURFACES
WITHIN THE TOWN WETLAND BUFFER

	AREA (sq feet)
Asphalt Driveway	372
Forecourt	997
Garage/Cabana	1,134
Pool	950
Pool Patio	829
Cottage/Toolshed	292
Patio @ Cottage/Toolshed	203
House	476
House	1,103
Front Walk	207
Front Walk	214
Walk	16
Driveway	394
Driveway	1,349
Driveway	1,276
Walk (north side of garage)	104
Pool Equipment Pad	18
Patio	500
Pad	8
Pads (A/C)	8
TOTAL	19,996
CHANGE IN IMPACTS	10,450



DRAWING TITLE:

Future Condition Wetland Buffer Impacts

Figure 2

.STORMWATER MANAGEMENT REPORT
FOR 15 BENEDICT ROAD
SOUTH SALEM, NEW YORK
Rev. Date: April 11, 2022

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

This Stormwater Management Report is submitted in support of the application of the owners of the above-noted property, James Rini and Elizabeth Langel, for the construction of a garage/ cabana building, inground pool, pool patio and driveway modifications.

1) Existing Site Conditions:

The subject property is 67,336 square feet (1.546 acres) in size and is located on the north side of Benedict Road (see **Figure 1**). There is an existing 1-1/2 story frame residence on the lot, as well as a flagstone in back of the house. The present lot has no garage, so the owners' vehicles are out in the elements all year long. The property also features the typical residential landscape of mown lawn, trees and shrubs, as well as a "formal garden area" and planters. There is also an existing cottage/toolshed building near the eastern property line.

A wetland area associated with the Waccabuc River is present in the southwestern corner of the property. The Waccabuc River is located to the west of the property. The fringe of the property adjacent to the western property line is wooded. Existing residential properties lie to the north, south and east. Wetlands are located to the west and north of the property. The wetlands to the north appear to be regulated by the NYSDEC according to the Environmental Resource Mapper. Most of the property lies within the Town regulated 150-foot wetland buffer.

The property is located in the Waccabuc River Basin. The Waccabuc River flows into the Cross River, which eventually flows into the Cross River Reservoir. The northern two-thirds of the property drains generally in a northwesterly direction. In the report, this is defined as Design Point 1. The southern third drains to the southwest toward Design Point 2. A third design point, herein defined as Design Point 3 is located in the northeast corner of the lot.

Soils - According to the Web Soil Survey, two soil types are found on the property. Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky over the entire property with the exception of the extreme northeast corner, where Ridgebury complex, 0 to 8 percent slopes, very stony soils are found (see Figure 2).

Chatfield-Charlton complex soils consist of fine sandy loam and gravelly fine sandy loam The depth to the restrictive feature is typically 20 to 41 inches below grade. These soils are classified as hydrologic soils group B. No disturbance of the northeast corner of the property is proposed.

2) Stormwater Management Design Criteria and Plan

Since most of the construction is proposed in the northern two-thirds of the property, stormwater management is proposed only for the portion of the lot which drains to Design Point 1. Since the project also includes the removal of an existing driveway spur that drains to Design Point 2, the amount of impervious surfaces that contribute runoff to that design point will decrease significantly.

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 subsurface chambers. It is proposed to direct pool drawdown water (752 s.f. pool area x 6" pool drawdown) which is calculated to be 376 cubic feet, to proposed subsurface chambers to the northwest of the pool.

The runoff from the garage/cabana, pool, pool patio, and portions of the new driveway to the garage/cabana will be directed into catch basins, area drains and slot drains and conveyed in storm drainage pipes to a subsurface stormwater management facility to consist of Cultec 100HD chambers. The chambers will be located in the northwestern portion of the property.

3) Stormwater Analysis

As noted above, the runoff from the pool, pool patio, landscape feature to the west of the pool and a portion of the driveway will be directed into catch basins, area drains and a slot drain and conveyed in subsurface storm drainage pipes to a stormwater management facility.

The following describes the existing and future condition drainage areas that were modeled for this SWPPP report.

Existing Condition – In the existing condition, three drainage areas were defined as follows (see **Figure 3)**.

Existing Condition Drainage Area #1 (XDA-1) is 34,605 square feet in area and consists of the northwest corner of the house, portions of the existing gravel surfaced driveway, lawn and garden areas. Runoff from this drainage area is conveyed to the northwest corner of the property, eventually discharging into wetlands associated with the Waccabuc River. A curve number of 64 was calculated for this drainage area.

Existing Condition Drainage Area #2 (XDA-2) is 25,197 square feet in size and consists of all but the northwest corner of the house, a small portions of the existing gravel surfaced driveway and most of the paved driveway, as well as lawn areas. Runoff from this drainage area is conveyed to a wetland in the southwest corner of the property, eventually discharging into the Waccabuc River.

Existing Condition Drainage Area #3 (XDA-3) is 7,562 square feet in size and includes the existing cottage/toolshed building, a small flagstone patio at the entry to the building and lawn areas. Runoff from this drainage area is conveyed to an off-site wetland to the north of the property and into the State Freshwater Wetland.

Future Condition - The following describes the future condition drainage areas that were analyzed.

Future Condition Drainage Area #1.1 (FDA-1.1) is 7,410 square feet in size and consists of the drainage area from which the runoff will be directed to the stormwater management practice. This drainage area includes the majority of the new impervious surfaces, including the garage/cabana building, pool and pool patio and the driveway and garage apron areas which will provide access to the garage. A curve number of 92 was determined for this drainage area. The runoff from this drainage area will be directed into catch basins, area drains and a slot drain and conveyed in storm drainage pipes to the subsurface chambers which is to consist of 6 rows of 5 Cultec 100HD chambers placed-end to end.

Future Condition Drainage Area #1.1 (FDA-1.1) is 27,791 square feet in area and consists of the remainder of the drainage area which conveys runoff to Design Point 1. This drainage area consist of mostly lawn areas, as well as unconnected impervious surfaces – walkways near the pool patio. A curve number of 61 was calculated for this drainage area.

Future Condition Drainage Area #2 (FDA-2) is 24,600 square feet in size. With the removal of the paved driveway spur that runs to the south façade of the house, the impervious surfaces in this drainage area will be reduced from 4,487 square feet to 3,568 square feet, and the curve number will drop from 68 down to 66. As a result, the runoff volume and peak rate conveyed to the wetland and Waccabuc River will be significantly reduced. No further analysis of this drainage area is provided.

Future Condition Drainage Area #3 (FDA-3) is 7,562 square feet in size (the same as the existing) and includes the existing cottage/toolshed building, a small flagstone patio at the entry to the building, a portion of the proposed fire pit, and lawn areas. Runoff from this drainage area is, as at present, conveyed to an off-site wetland to the north of the property and into the State Freshwater Wetland. Given the small change in impervious surfaces – the addition of a fire pit – no analysis of this area is provided since the change is de minimis.

Mitigation is proposed to reduce the peak rate of runoff to Design Point 1 to levels below the existing condition.

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: 2.83" for the one-year storm, 3.40" for the 2-year storm, 5.08" for the ten-year storm, and 6.38" 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.

The proposed chambers will be installed to provide peak rate attenuation (and water quality treatment) of the runoff from drainage area FDA-1.1 as well as accommodating the pool drawdown. 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)

Drainage Area/ Storm Interval	*1 year*	*2 year*	*10 year*	*25 year*
Existing Condition				
Flows to Design Point	0.23	0.47	1.41	2.27
Future Condition				
Flows to Design Point	0.10	0.27	1.05	2.12

A drawdown of 6" of pool water would therefore be a volume of (47' x 16' x 0.5') 376 cubic feet. According to the Recharger 100D Incremental Storage Volumes chart, at 12" above the invert of the stone, or at an elevation of 478.50 feet, the chambers would store 526.20 cubic feet, a volume in excess of the drawdown volume. Hence, the proposed chambers would be able to fully contain 6" of pool drawdown volume.

5) Summary:

The proposed stormwater management facility to consist of a 30 Cultec 100HD chambers which will provide peak rate attenuation of runoff across all of the modeled storm events and provide for the entire volume from 6" of pool drawdown within the chambers.

FIGURES

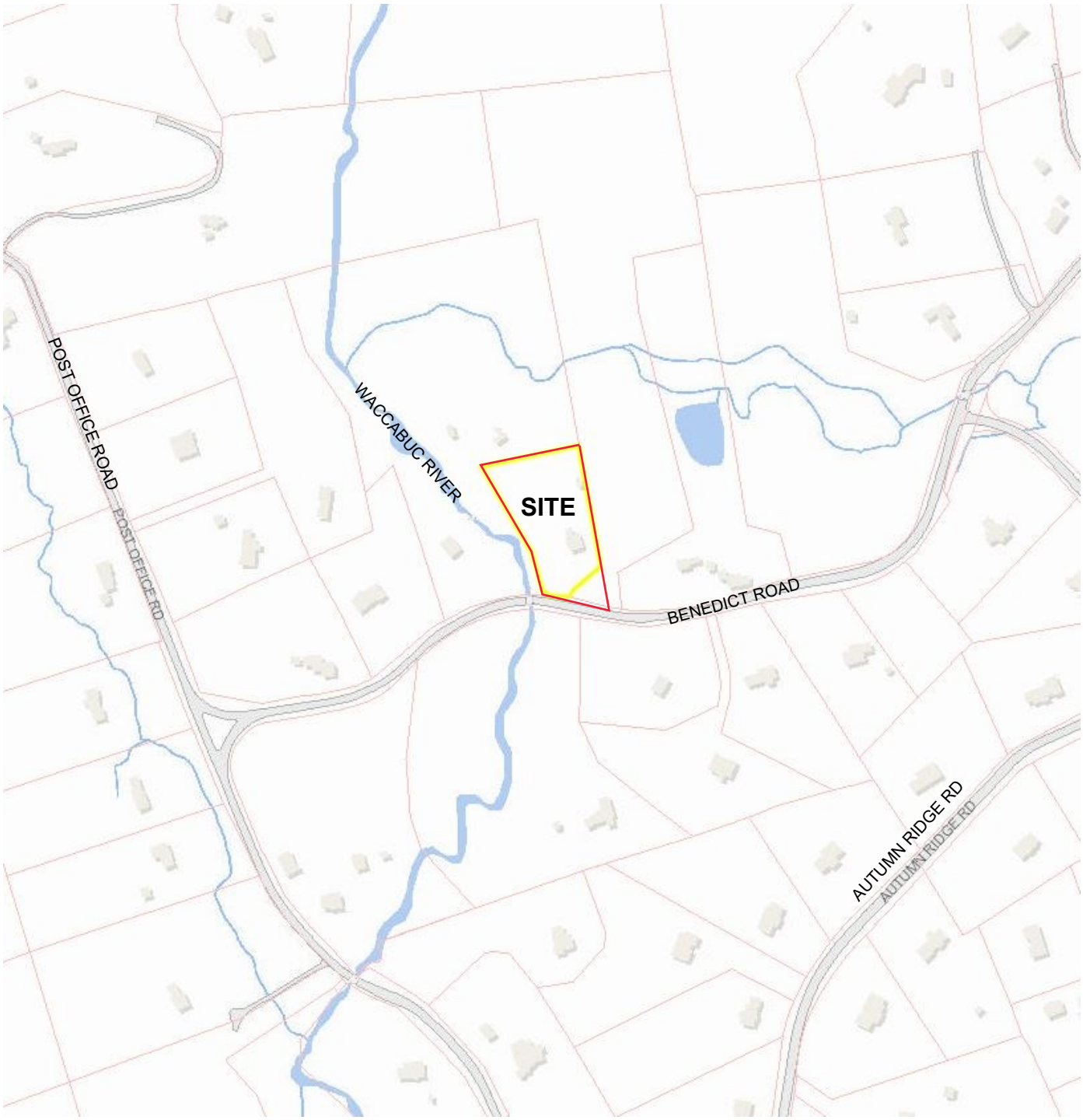
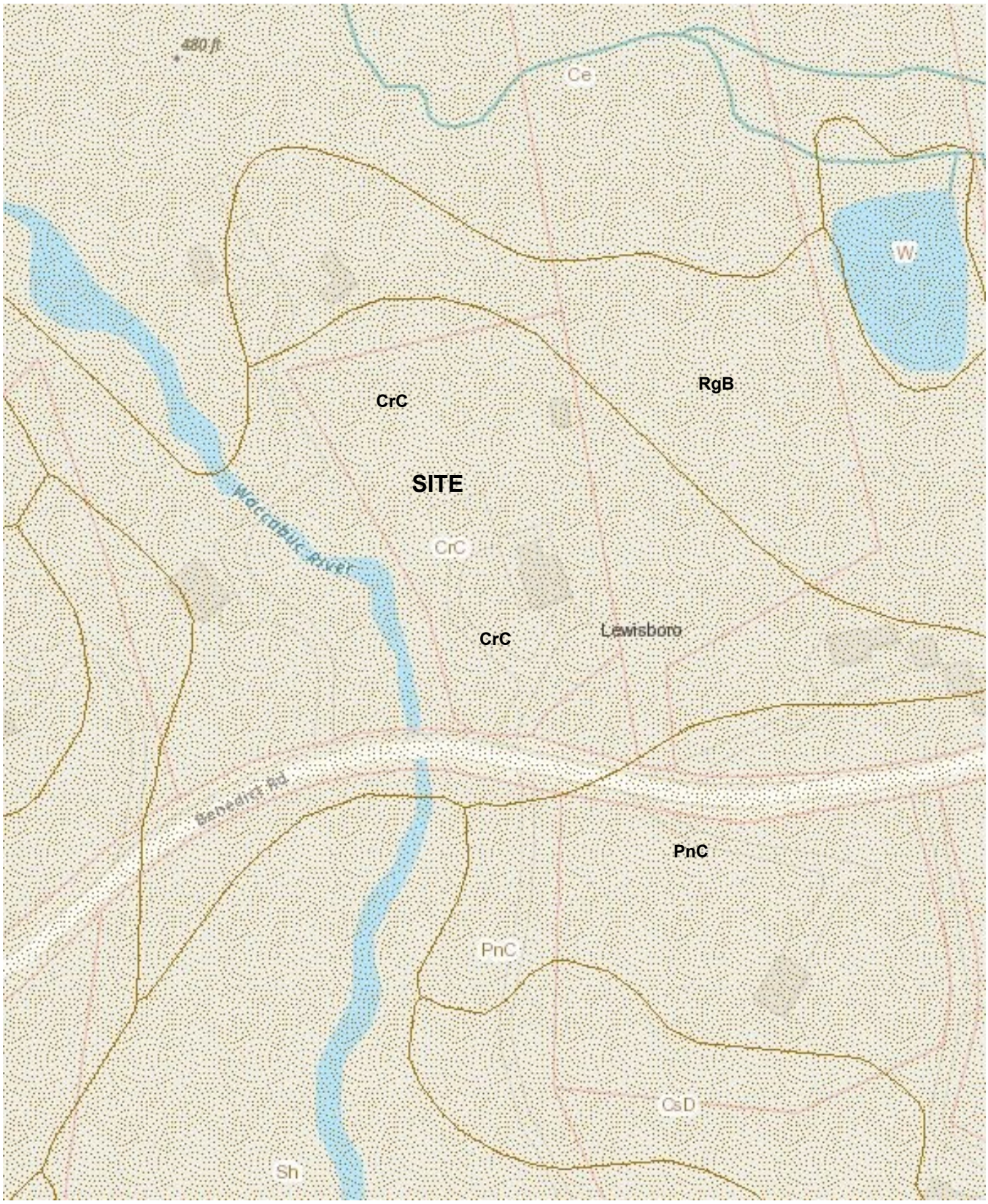


Figure 1

SITE LOCATION MAP

Scale: Not to Scale

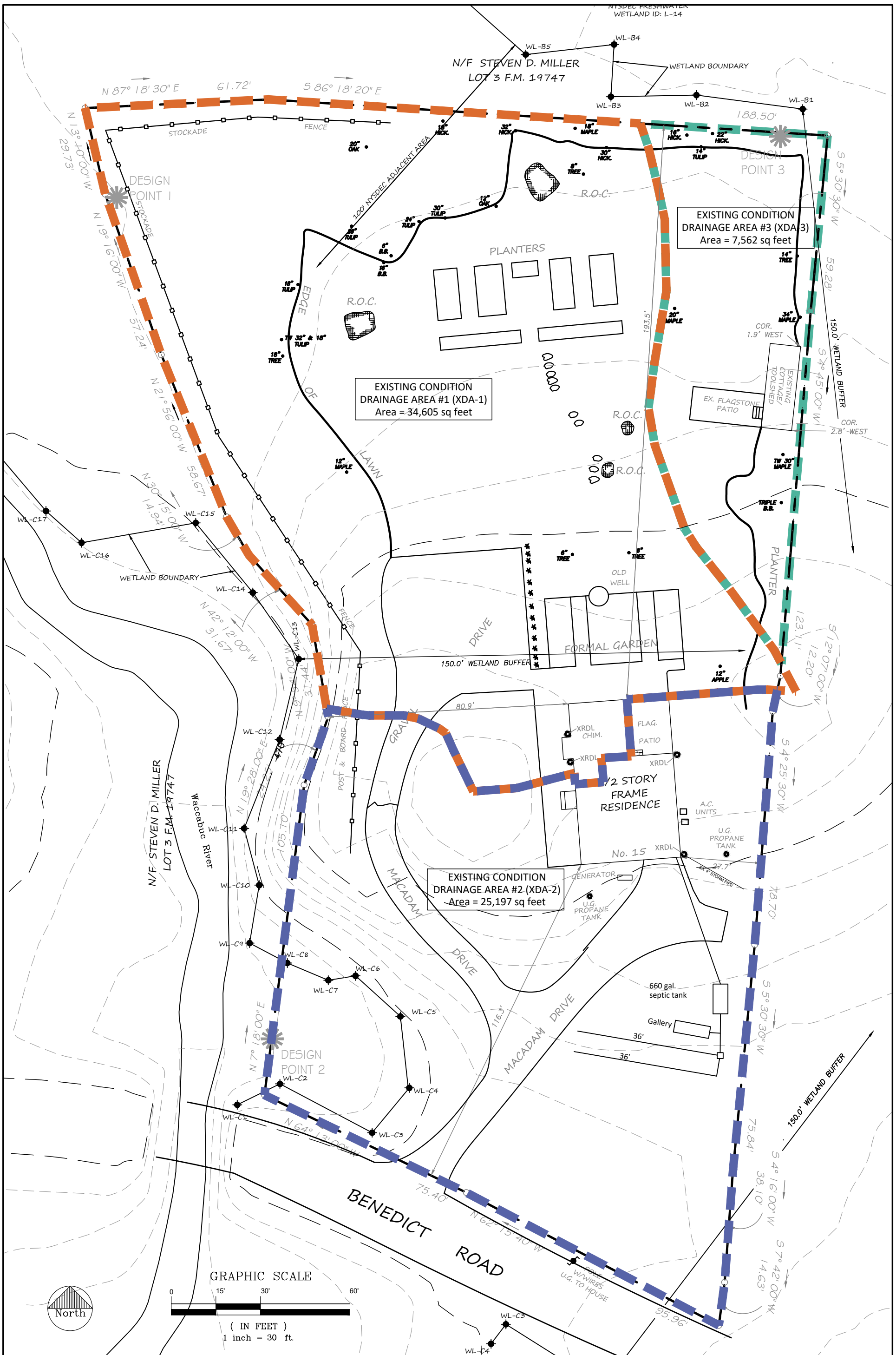


LEGEND:
CrC—Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky
RgB—Ridgebury complex, 0 to 8 percent slopes, very stony

Figure 2

SOILS MAP

Scale: Not to Scale



PROJECT NAME:

Site Modifications at 15 Benedict

15 Benedict Road
South Salem, New York 10590

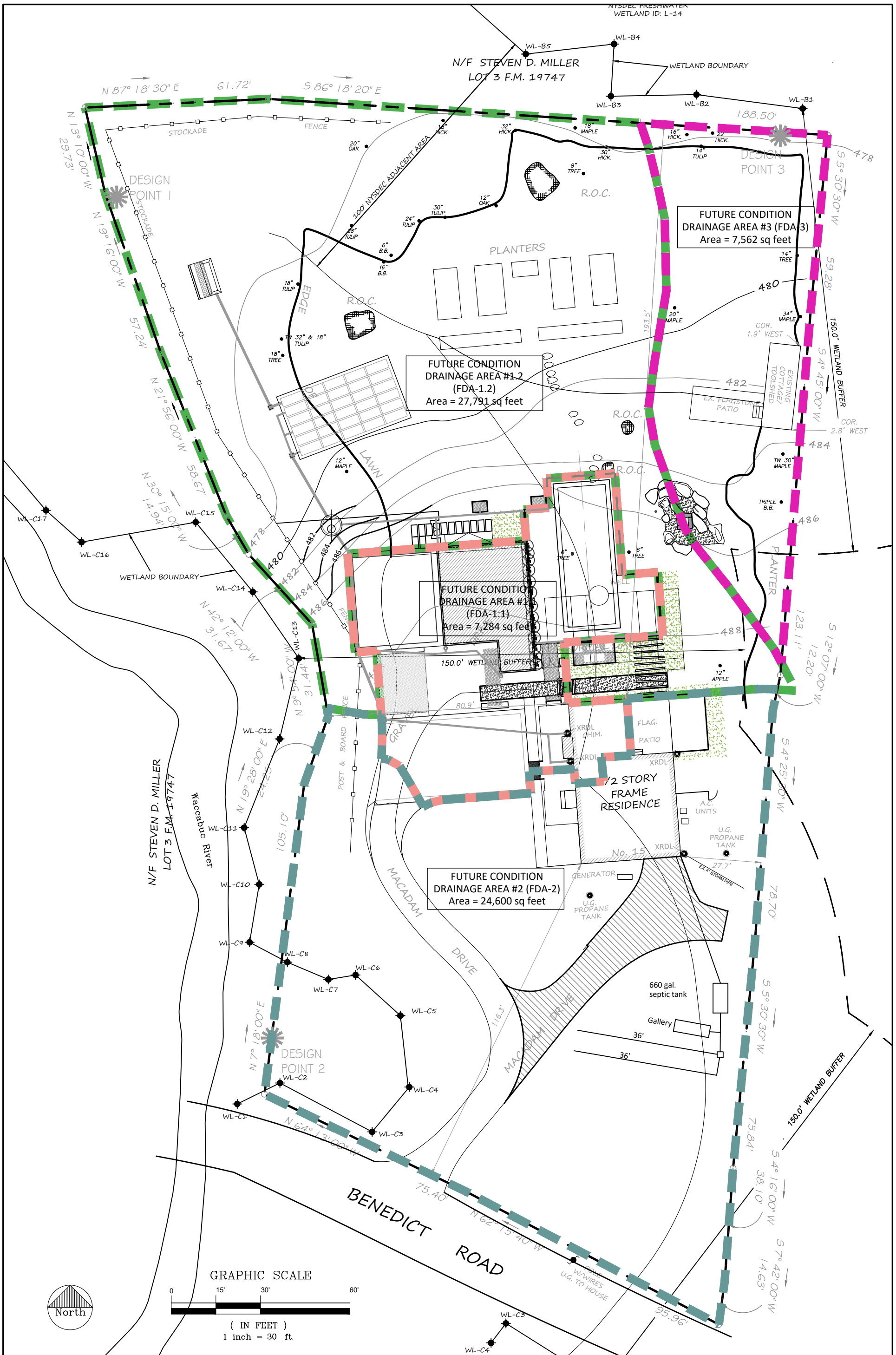
DRAWING TITLE:

Existing Condition Drainage Area Map

ENGINEER:

ALP ENGINEERING
AND LANDSCAPE ARCHITECTURE, PLLC
P.O. Box 843
Ridgefield, Connecticut 06877
Tel. (475) 215-5343 Cell (203) 710-0587

Figure 3



PROJECT NAME:

Site Modifications at 15 Benedict

15 Benedict Road
South Salem, New York 10590

DRAWING TITLE:

Future Condition Drainage Area Map

ENGINEER:
ALP ENGINEERING
AND LANDSCAPE ARCHITECTURE, PLLC
P.O. Box 843
Ridgefield, Connecticut 06877
Tel. (475) 215-5343 Cell (203) 710-0587

Figure 4

SUPPORTING DOCUMENTATION

CULTEC Stage-Storage Calculations

Date:	April 11, 2022

Project Information:
Rini-Langel Property
15 Benedict Road
South Salem
New York 10590
USA

Project Number:
Pool Drawdown

Chamber Model -	**Contactor 100HD**	
Number of Rows-	6	units
Total Number of Chambers -	30	units
HVLV SFCx2 Feed Connectors-	10	units
Stone Void -	40	%
Stone Base -	6	inches
Stone Above Units -	6	inches
Area -	900.00	ft2
Base of Stone Elevation -	477.50	

Contactor 100HD Incremental Storage Volumes

Height of System		Chamber Volume		HVLV Feed Connector Volume		Stone Volume		Cumulative Storage Volume		Total Cumulative Storage Volume		Elevation		
in	mm	ft^3	m^3	ft3	m3	ft^3	m^3	ft^3	m^3	ft^3	m^3	ft	m	
24.5	622	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	993.32	28.13	479.540	478.12	Top of Stone Elevation
23.5	597	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	963.32	27.28	479.460	478.10	
22.5	572	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	933.32	26.43	479.380	478.07	
21.5	546	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	903.32	25.58	479.290	478.05	
20.5	521	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	873.32	24.73	479.210	478.02	
19.5	495	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	843.32	23.88	479.130	478.00	
18.5	470	0.0	0.0	0.0	0.0	15.0	0.4	15.014	0.4	813.32	23.03	479.040	477.97	Top of Chamber Elevation
18.0	457	5.5	0.2	0.0	0.0	27.8	0.8	33.283	0.9	798.30	22.61	479.000	477.96	
17.0	432	15.3	0.4	0.0	0.0	23.9	0.7	39.166	1.1	765.02	21.66	478.920	477.93	
16.0	406	25.1	0.7	0.0	0.0	20.0	0.6	45.048	1.3	725.85	20.55	478.830	477.91	
15.0	381	31.7	0.9	0.0	0.0	17.3	0.5	49.015	1.4	680.81	19.28	478.750	477.88	
14.0	356	36.3	1.0	0.0	0.0	15.5	0.4	51.756	1.5	631.79	17.89	478.670	477.86	
13.0	330	39.7	1.1	0.0	0.0	14.1	0.4	53.831	1.5	580.03	16.42	478.580	477.83	
12.0	305	42.0	1.2	0.1	0.0	13.2	0.4	55.274	1.6	526.20	14.90	478.500	477.80	
11.0	279	43.8	1.2	0.1	0.0	12.5	0.4	56.402	1.6	470.93	13.34	478.420	477.78	
10.0	254	46.3	1.3	0.2	0.0	11.5	0.3	57.921	1.6	414.53	11.74	478.330	477.75	
9.0	229	46.3	1.3	0.2	0.0	11.5	0.3	57.929	1.6	356.61	10.10	478.250	477.73	
8.0	203	46.3	1.3	0.2	0.0	11.5	0.3	57.937	1.6	298.68	8.46	478.170	477.70	
7.0	178	50.8	1.4	0.2	0.0	9.7	0.3	60.740	1.7	240.74	6.82	478.080	477.68	
6.0	152	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	180.00	5.10	478.000	477.65	Bottom of Chamber Elevation
5.0	127	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	150.00	4.25	477.920	477.63	
4.0	102	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	120.00	3.40	477.830	477.60	
3.0	76	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	90.00	2.55	477.750	477.58	
2.0	51	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	60.00	1.70	477.670	477.55	
1.0	25	0.0	0.0	0.0	0.0	30.0	0.8	30.000	0.8	30.00	0.85	477.580	477.53	
0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.000	0.0	0.00	0.00	477.500	477.50	Bottom of Stone Elevation
-1.0														
-2.0														
-3.0														
-4.0														
-5.0														
-6.0														

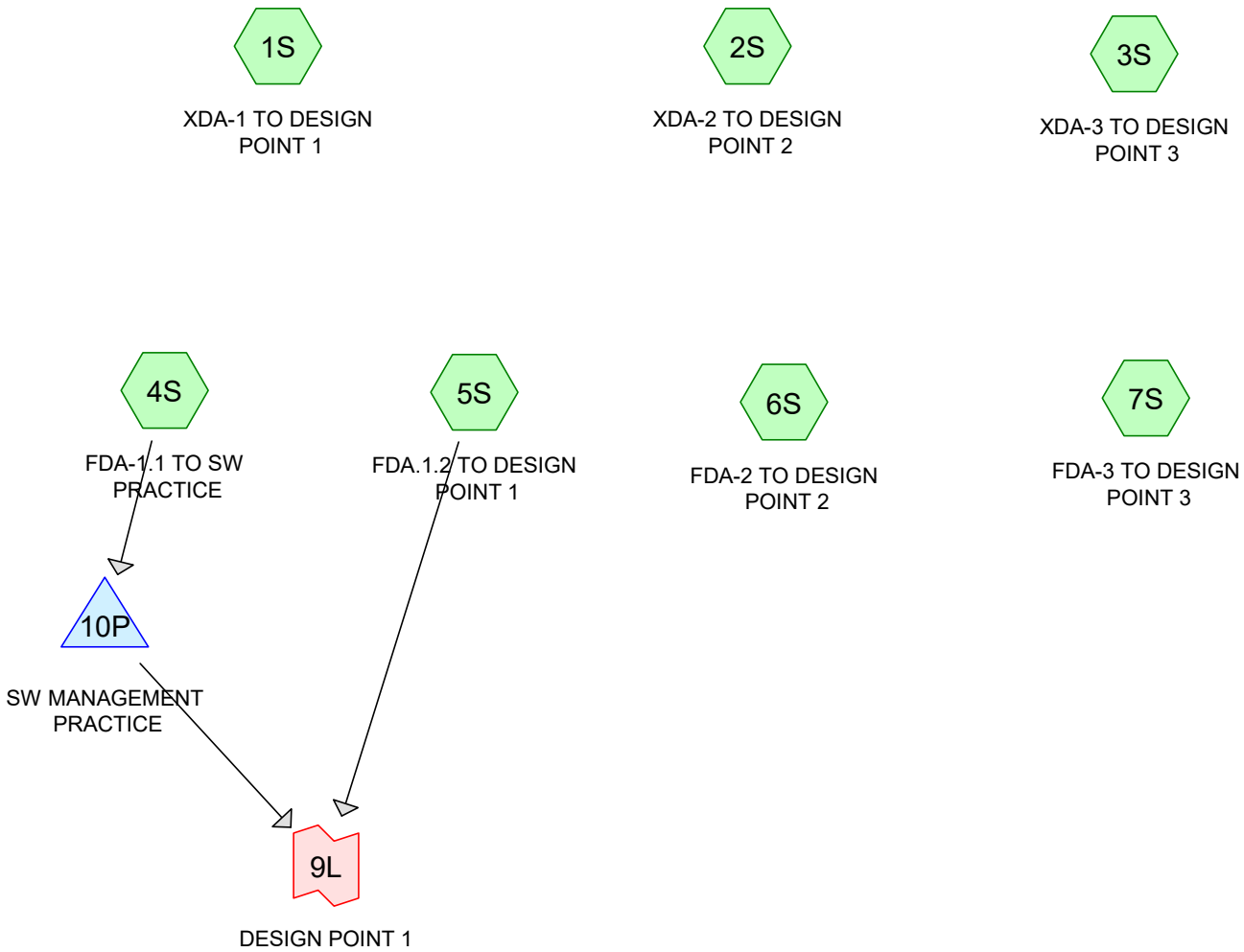
CULTEC, Inc.
P.O. Box 280
Brookfield, CT 06804

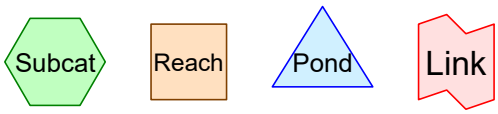
Phone: 203-775-4416
www.cultec.com
tech@cultec.com

Created on: 4/11/2022

Appendix A

Stormwater Management Report Hydrographs and Routings





Routing Diagram for 15 Benedict SW Plan_04-2022.2
Prepared by ALP Engineering & Land. Arch. PLLC
HydroCAD® 10.10-7a s/n 03392 © 2021 HydroCAD Software Solutions LLC

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	2.83	2
2	2-year	Type III 24-hr		Default	24.00	1	3.40	2
3	10-year	Type III 24-hr		Default	24.00	1	5.08	2
4	25-year	Type III 24-hr		Default	24.00	1	6.38	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.441	61	>75% Grass cover, Good, HSG B (1S, 2S, 3S, 4S, 5S, 6S, 7S)
0.045	80	>75% Grass cover, Good, HSG D (3S, 7S)
0.013	98	Cottage/toolshed building, HSG B (3S, 7S)
0.007	85	Gravel driveway, HSG B (2S)
0.079	85	Gravel roads, HSG B (1S)
0.007	85	Gravel walk, HSG B (2S)
0.011	98	House Roof, HSG B (1S)
0.000	98	Impervious Fire Pit (7S)
0.144	98	Impervious Surfaces, HSG B (4S)
0.185	98	Impervious surfaces, HSG B (2S, 6S)
0.001	98	Old Well, HSG B (1S)
0.009	98	Patio, HSG B (3S, 7S)
0.004	98	Unconnected pavement, HSG B (5S)
0.103	55	Woods, Good, HSG B (6S)
0.043	77	Woods, Good, HSG D (6S)
3.093	**66**	**TOTAL AREA**

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	2.441	0.000	0.045	0.000	2.486	>75% Grass cover, Good	1S, 2S, 3S, 4S, 5S, 6S, 7S
0.000	0.013	0.000	0.000	0.000	0.013	Cottage/toolshed building	3S, 7S
0.000	0.007	0.000	0.000	0.000	0.007	Gravel driveway	2S
0.000	0.079	0.000	0.000	0.000	0.079	Gravel roads	1S
0.000	0.007	0.000	0.000	0.000	0.007	Gravel walk	2S
0.000	0.011	0.000	0.000	0.000	0.011	House Roof	1S
0.000	0.000	0.000	0.000	0.000	0.000	Impervious Fire Pit	7S
0.000	0.144	0.000	0.000	0.000	0.144	Impervious Surfaces	4S
0.000	0.185	0.000	0.000	0.000	0.185	Impervious surfaces	2S, 6S
0.000	0.001	0.000	0.000	0.000	0.001	Old Well	1S
0.000	0.009	0.000	0.000	0.000	0.009	Patio	3S, 7S
0.000	0.004	0.000	0.000	0.000	0.004	Unconnected pavement	5S
0.000	0.103	0.000	0.043	0.000	0.146	Woods, Good	6S
0.000	**3.005**	**0.000**	**0.088**	**0.000**	**3.093**	**TOTAL AREA**	

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=34,605 sf 1.47% Impervious Runoff Depth=0.40"
Tc=6.5 min CN=64 Runoff=0.23 cfs 0.026 af

Subcatchment 2S: XDA-2 TO DESIGN Runoff Area=25,197 sf 17.81% Impervious Runoff Depth=0.54"
Tc=6.0 min CN=68 Runoff=0.29 cfs 0.026 af

Subcatchment 3S: XDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.55% Impervious Runoff Depth=0.47"
Tc=6.0 min CN=66 Runoff=0.07 cfs 0.007 af

Subcatchment 4S: FDA-1.1 TO SW Runoff Area=7,410 sf 84.56% Impervious Runoff Depth=2.00"
Tc=6.0 min CN=92 Runoff=0.39 cfs 0.028 af

Subcatchment 5S: FDA.1.2 TO DESIGN Runoff Area=27,791 sf 0.60% Impervious Runoff Depth=0.30"
Tc=6.0 min CN=61 Runoff=0.10 cfs 0.016 af

Subcatchment 6S: FDA-2 TO DESIGN Runoff Area=24,600 sf 14.50% Impervious Runoff Depth=0.47"
Tc=6.0 min CN=66 Runoff=0.22 cfs 0.022 af

Subcatchment 7S: FDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.70% Impervious Runoff Depth=0.47"
Tc=6.0 min CN=66 Runoff=0.07 cfs 0.007 af

Pond 10P: SW MANAGEMENT PRACTICE Peak Elev=478.40' Storage=445 cf Inflow=0.39 cfs 0.028 af
Discarded=0.04 cfs 0.028 af Primary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Link 9L: DESIGN POINT 1 Inflow=0.10 cfs 0.016 af
Primary=0.10 cfs 0.016 af

Total Runoff Area = 3.093 ac Runoff Volume = 0.132 af Average Runoff Depth = 0.51"
88.12% Pervious = 2.726 ac 11.88% Impervious = 0.367 ac

Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT 1

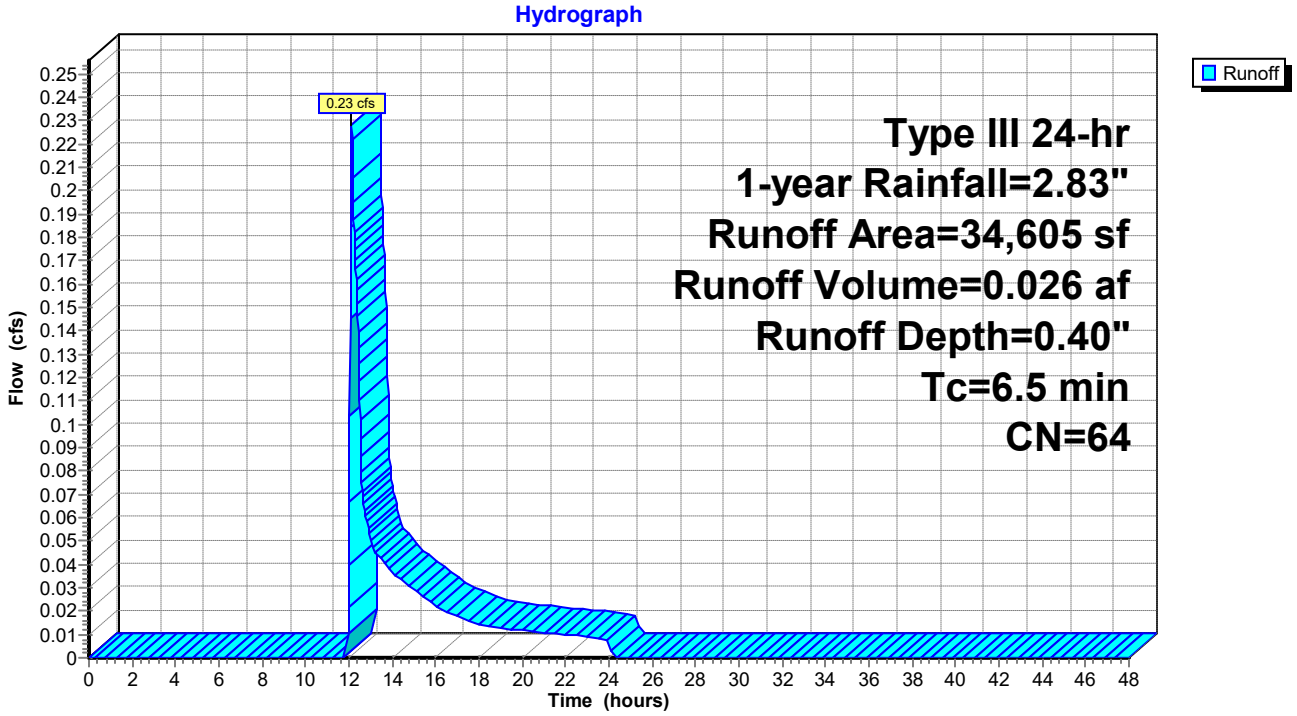
Runoff = 0.23 cfs @ 12.13 hrs, Volume= 0.026 af, Depth= 0.40"

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=2.83"

	Area (sf)	CN	Description
*	476	98	House Roof, HSG B
	3,430	85	Gravel roads, HSG B
*	34	98	Old Well, HSG B
	30,665	61	>75% Grass cover, Good, HSG B
	34,605	64	Weighted Average
	34,095		98.53% Pervious Area
	510		1.47% Impervious Area

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

Subcatchment 1S: XDA-1 TO DESIGN POINT 1



Summary for Subcatchment 2S: XDA-2 TO DESIGN POINT 2

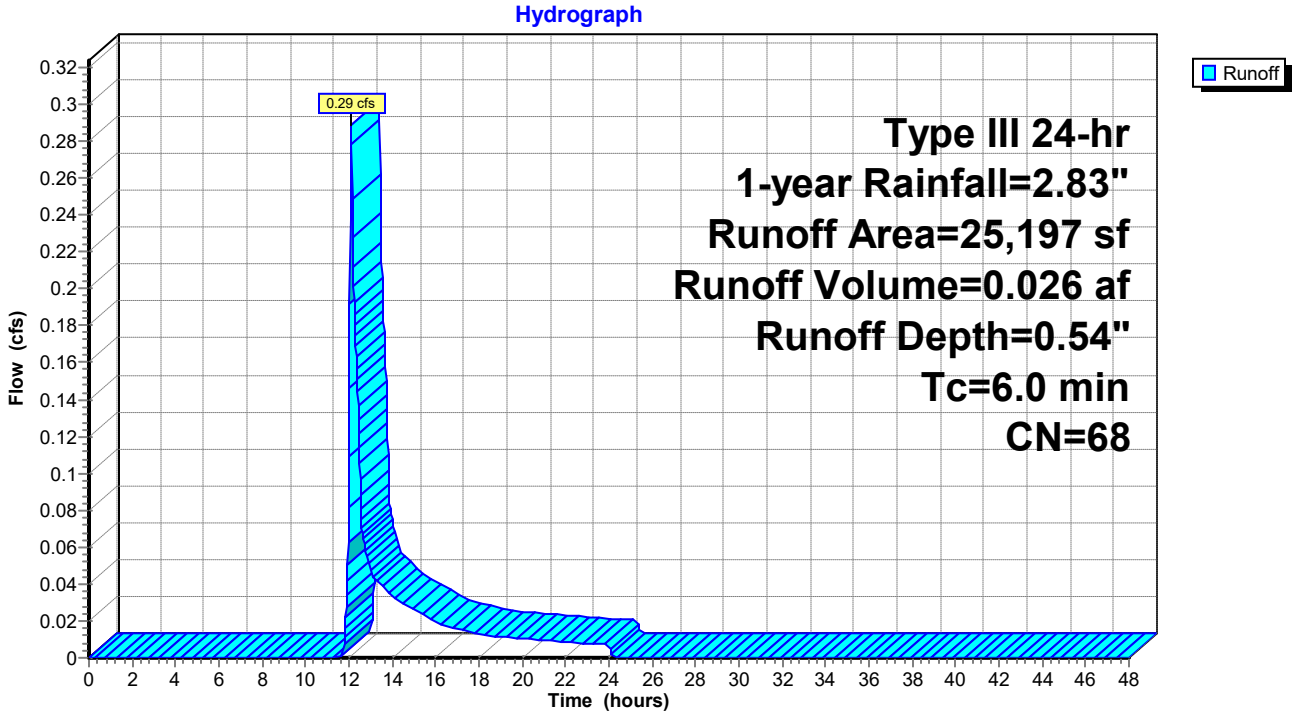
Runoff = 0.29 cfs @ 12.11 hrs, Volume= 0.026 af, Depth= 0.54"

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=2.83"

	Area (sf)	CN	Description
*	4,487	98	Impervious surfaces, HSG B
*	308	85	Gravel walk, HSG B
*	316	85	Gravel driveway, HSG B
	20,086	61	>75% Grass cover, Good, HSG B
	25,197	68	Weighted Average
	20,710		82.19% Pervious Area
	4,487		17.81% Impervious Area

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

Subcatchment 2S: XDA-2 TO DESIGN POINT 2



Summary for Subcatchment 3S: XDA-3 TO DESIGN POINT 3

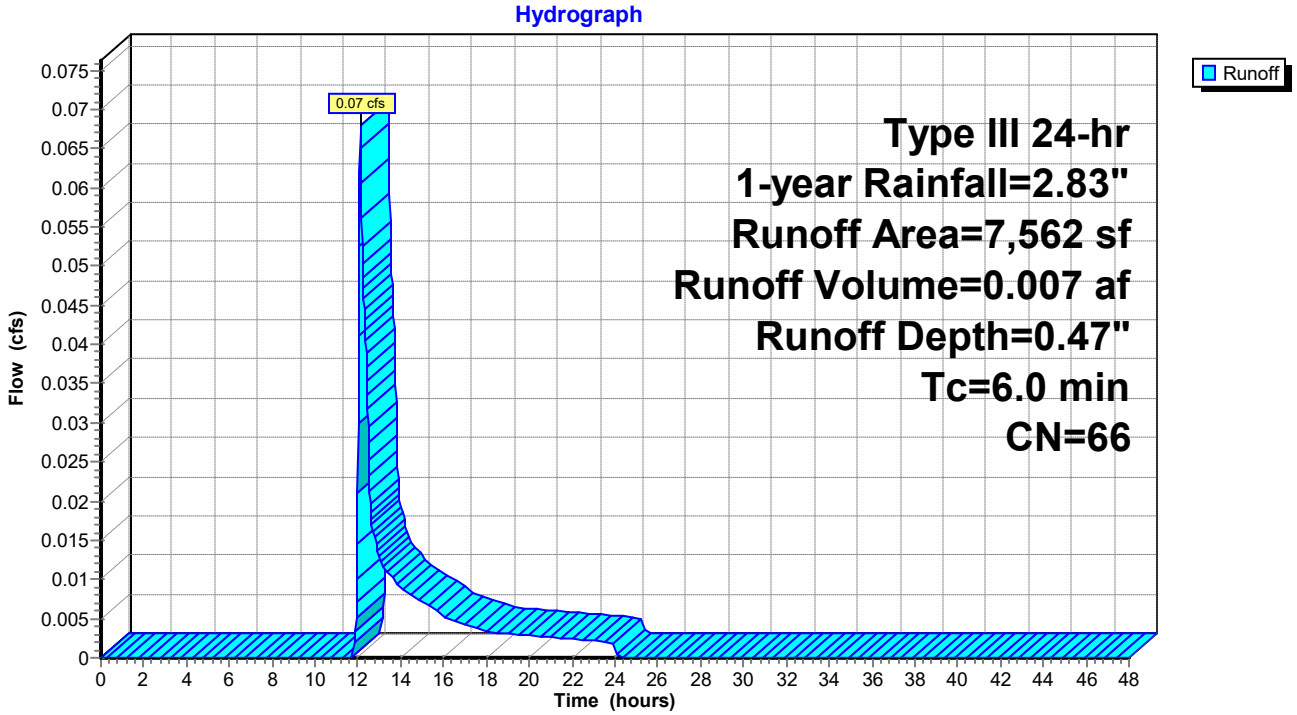
Runoff = 0.07 cfs @ 12.11 hrs, Volume= 0.007 af, Depth= 0.47"

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=2.83"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
	6,086	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,067		93.45% Pervious Area
	495		6.55% Impervious Area

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

Subcatchment 3S: XDA-3 TO DESIGN POINT 3



Summary for Subcatchment 4S: FDA-1.1 TO SW PRACTICE

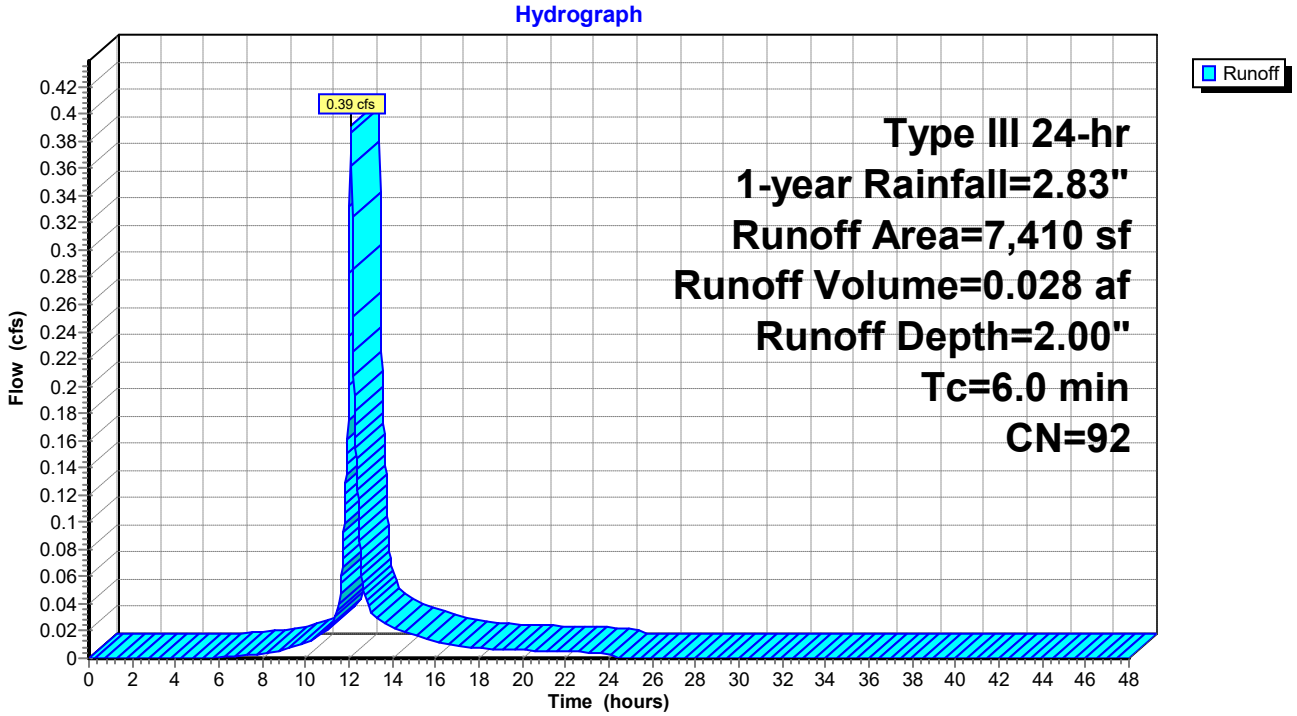
Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 2.00"
Routed to Pond 10P : SW MANAGEMENT PRACTICE

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=2.83"

	Area (sf)	CN	Description
*	6,266	98	Impervious Surfaces, HSG B
	1,144	61	>75% Grass cover, Good, HSG B
	7,410	92	Weighted Average
	1,144		15.44% Pervious Area
	6,266		84.56% Impervious Area

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

Subcatchment 4S: FDA-1.1 TO SW PRACTICE



Summary for Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1

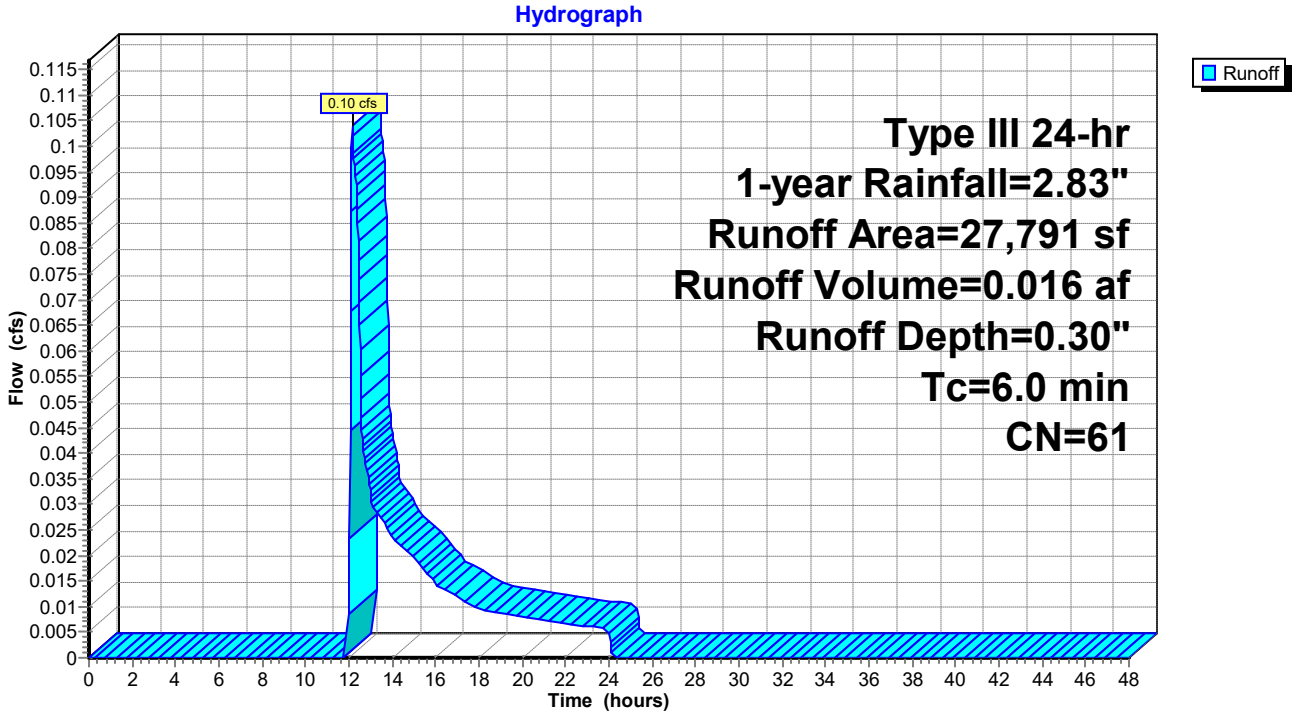
Runoff = 0.10 cfs @ 12.15 hrs, Volume= 0.016 af, Depth= 0.30"
Routed to Link 9L : DESIGN POINT 1

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=2.83"

Area (sf)	CN	Description
27,623	61	>75% Grass cover, Good, HSG B
168	98	Unconnected pavement, HSG B
27,791	61	Weighted Average
27,623		99.40% Pervious Area
168		0.60% Impervious Area
168		100.00% Unconnected

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

Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1



Summary for Subcatchment 6S: FDA-2 TO DESIGN POINT 2

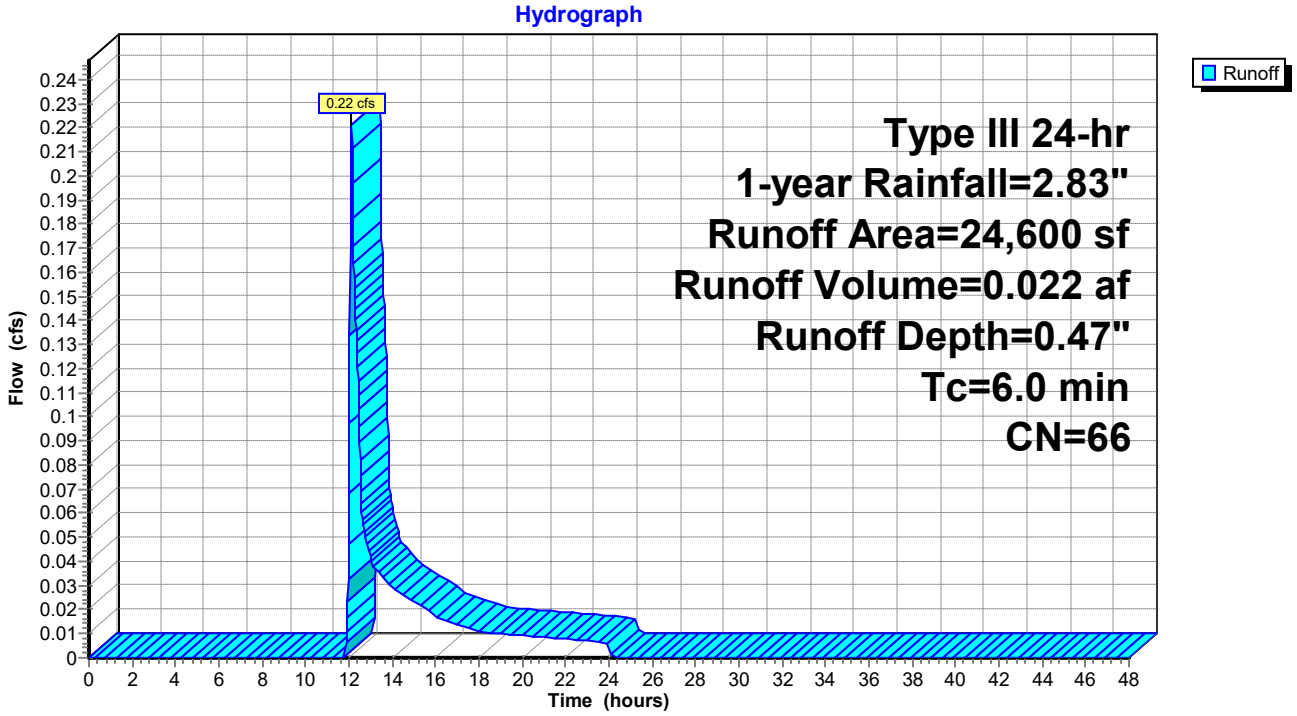
Runoff = 0.22 cfs @ 12.11 hrs, Volume= 0.022 af, Depth= 0.47"

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=2.83"

	Area (sf)	CN	Description
*	3,568	98	Impervious surfaces, HSG B
	4,500	55	Woods, Good, HSG B
	1,875	77	Woods, Good, HSG D
	14,657	61	>75% Grass cover, Good, HSG B
	24,600	66	Weighted Average
	21,032		85.50% Pervious Area
	3,568		14.50% Impervious Area

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

Subcatchment 6S: FDA-2 TO DESIGN POINT 2



Summary for Subcatchment 7S: FDA-3 TO DESIGN POINT 3

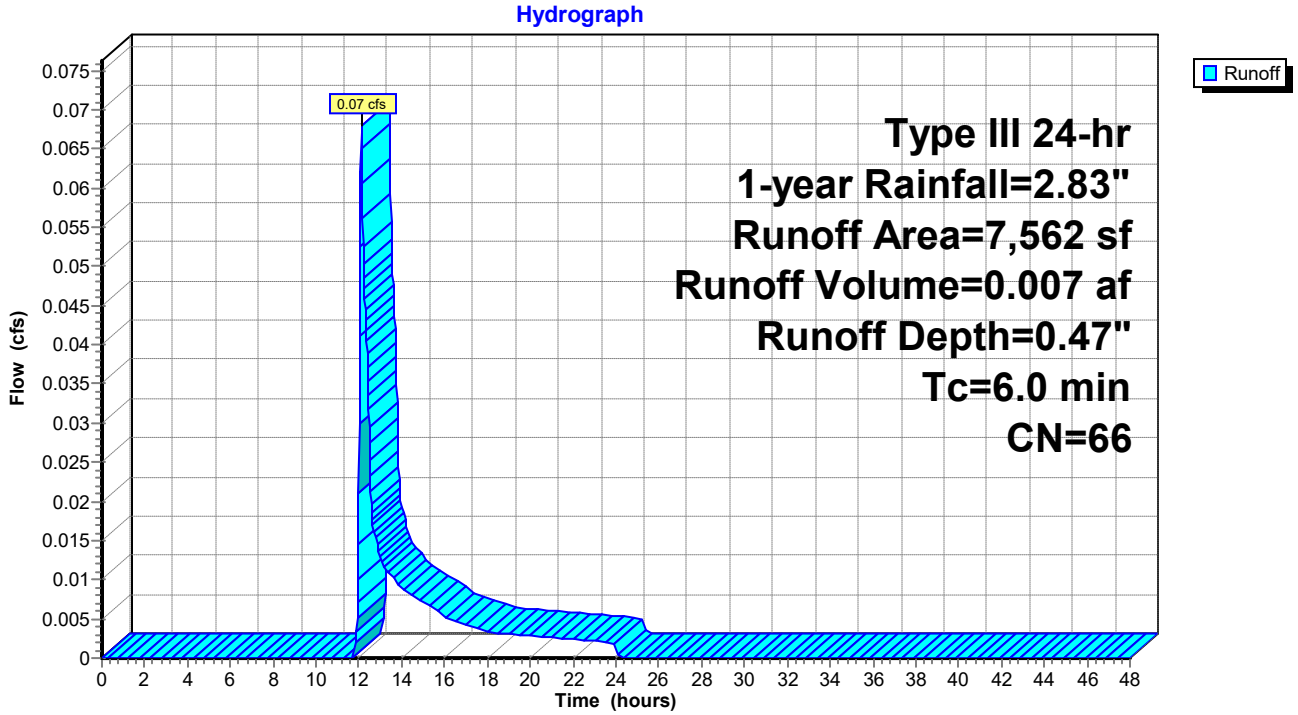
Runoff = 0.07 cfs @ 12.11 hrs, Volume= 0.007 af, Depth= 0.47"

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=2.83"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
*	12	98	Impervious Fire Pit
	6,074	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,055		93.30% Pervious Area
	507		6.70% Impervious Area

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

Subcatchment 7S: FDA-3 TO DESIGN POINT 3



Summary for Pond 10P: SW MANAGEMENT PRACTICE

Inflow Area = 0.170 ac, 84.56% Impervious, Inflow Depth = 2.00" for 1-year event
Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 11.62 hrs, Volume= 0.028 af, Atten= 90%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.62 hrs, Volume= 0.028 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 9L : DESIGN POINT 1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Peak Elev= 478.40' @ 12.89 hrs Surf.Area= 867 sf Storage= 445 cf

Plug-Flow detention time= 84.6 min calculated for 0.028 af (100% of inflow)
Center-of-Mass det. time= 84.6 min (886.8 - 802.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	477.50'	538 cf	**21.67'W x 40.00'L x 2.04'H Field A** 1,769 cf Overall - 424 cf Embedded = 1,345 cf x 40.0% Voids
#2A	478.00'	424 cf	**Cultec C-100HD** x 30 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 6 rows
		962 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	478.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	477.50'	**2.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.04 cfs @ 11.62 hrs HW=477.52' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=477.50' (Free Discharge)
└─**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 10P: SW MANAGEMENT PRACTICE - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 6 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

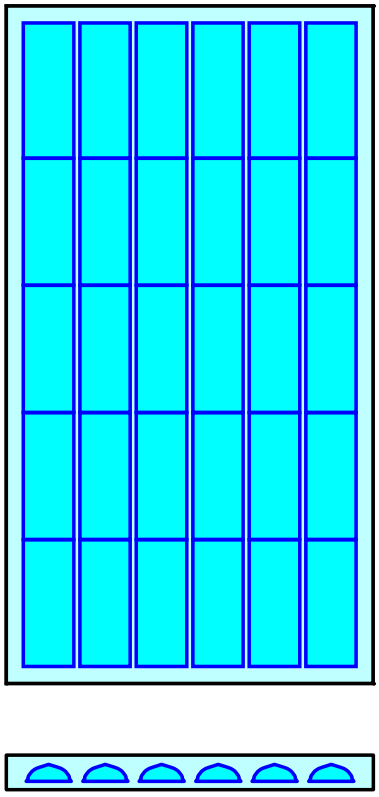
5 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 38.00' Row Length +12.0" End Stone x 2 = 40.00' Base Length
6 Rows x 36.0" Wide + 4.0" Spacing x 5 + 12.0" Side Stone x 2 = 21.67' Base Width
6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

30 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 6 Rows = 424.4 cf Chamber Storage

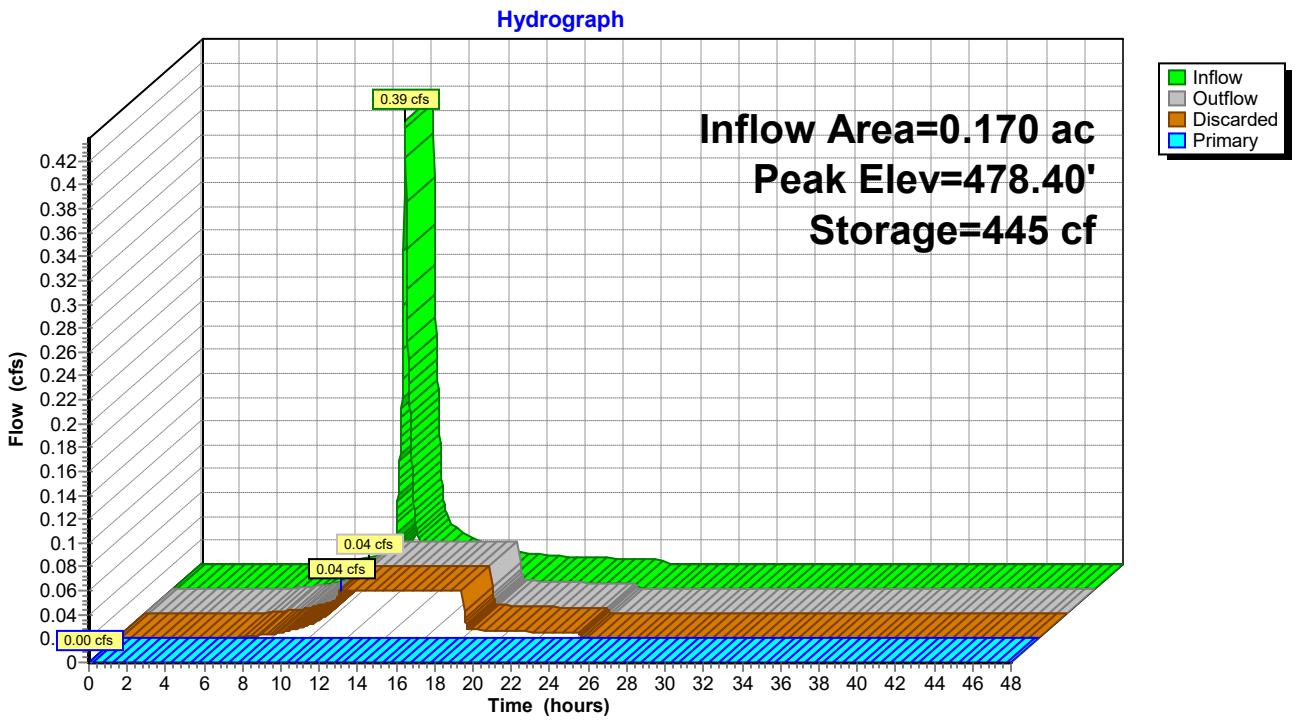
1,769.4 cf Field - 424.4 cf Chambers = 1,345.0 cf Stone x 40.0% Voids = 538.0 cf Stone Storage

Chamber Storage + Stone Storage = 962.4 cf = 0.022 af
Overall Storage Efficiency = 54.4%
Overall System Size = 40.00' x 21.67' x 2.04'

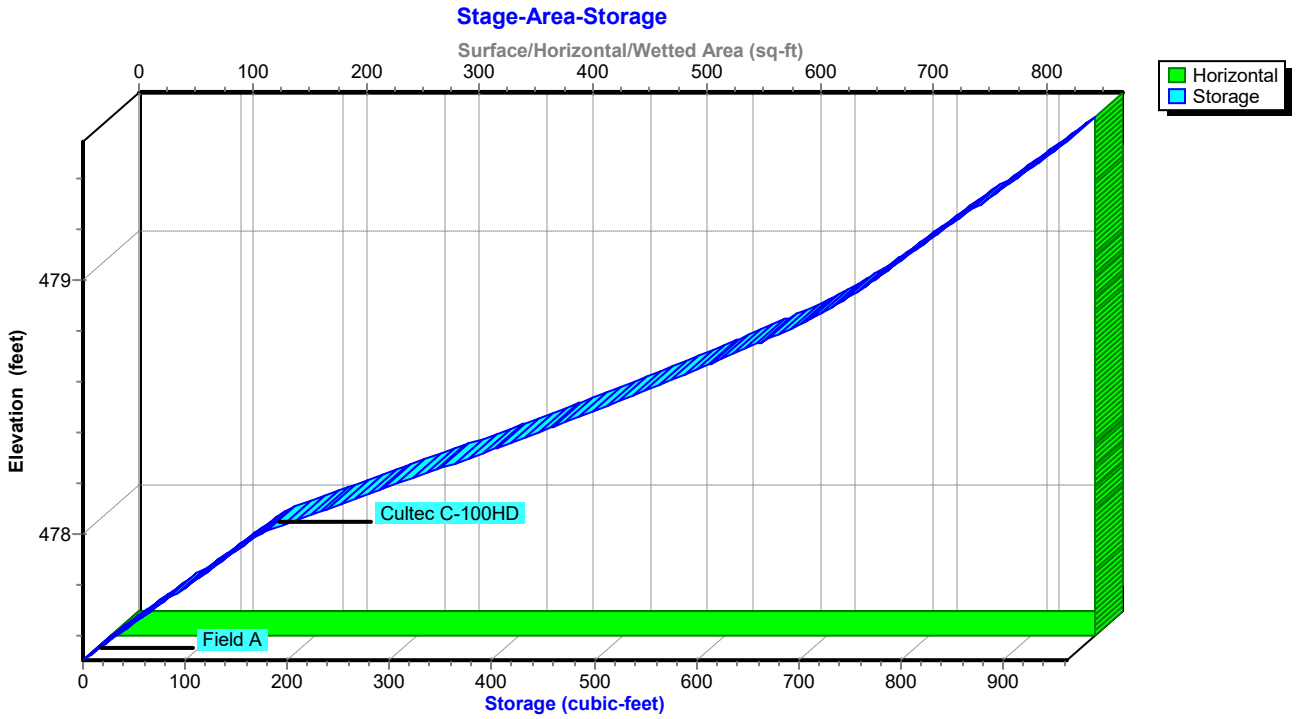
30 Chambers
65.5 cy Field
49.8 cy Stone



Pond 10P: SW MANAGEMENT PRACTICE



Pond 10P: SW MANAGEMENT PRACTICE

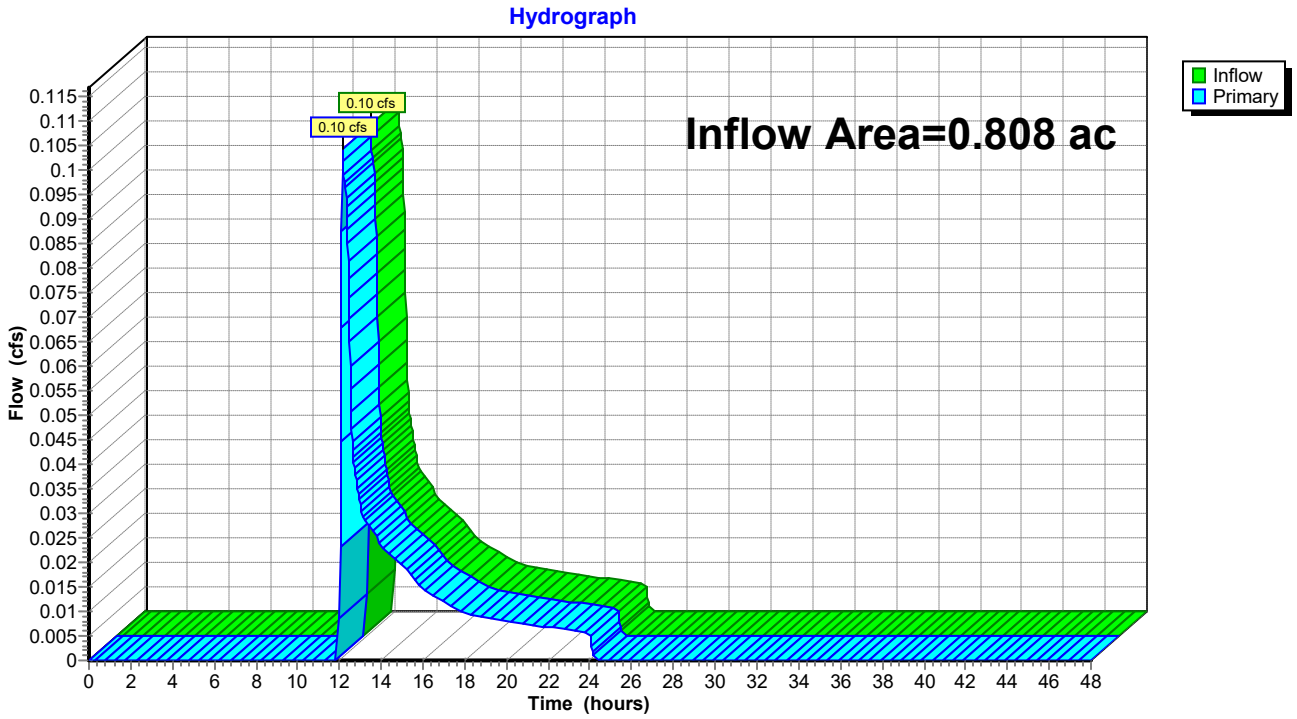


Summary for Link 9L: DESIGN POINT 1

Inflow Area = 0.808 ac, 18.28% Impervious, Inflow Depth = 0.24" for 1-year event
Inflow = 0.10 cfs @ 12.15 hrs, Volume= 0.016 af
Primary = 0.10 cfs @ 12.15 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 9L: DESIGN POINT 1



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=34,605 sf 1.47% Impervious Runoff Depth=0.66"
Tc=6.5 min CN=64 Runoff=0.47 cfs 0.043 af

Subcatchment 2S: XDA-2 TO DESIGN Runoff Area=25,197 sf 17.81% Impervious Runoff Depth=0.84"
Tc=6.0 min CN=68 Runoff=0.50 cfs 0.041 af

Subcatchment 3S: XDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.55% Impervious Runoff Depth=0.75"
Tc=6.0 min CN=66 Runoff=0.13 cfs 0.011 af

Subcatchment 4S: FDA-1.1 TO SW Runoff Area=7,410 sf 84.56% Impervious Runoff Depth=2.54"
Tc=6.0 min CN=92 Runoff=0.49 cfs 0.036 af

Subcatchment 5S: FDA.1.2 TO DESIGN Runoff Area=27,791 sf 0.60% Impervious Runoff Depth=0.53"
Tc=6.0 min CN=61 Runoff=0.27 cfs 0.028 af

Subcatchment 6S: FDA-2 TO DESIGN Runoff Area=24,600 sf 14.50% Impervious Runoff Depth=0.75"
Tc=6.0 min CN=66 Runoff=0.42 cfs 0.035 af

Subcatchment 7S: FDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.70% Impervious Runoff Depth=0.75"
Tc=6.0 min CN=66 Runoff=0.13 cfs 0.011 af

Pond 10P: SW MANAGEMENT PRACTICE Peak Elev=478.60' Storage=575 cf Inflow=0.49 cfs 0.036 af
Discarded=0.04 cfs 0.034 af Primary=0.03 cfs 0.002 af Outflow=0.07 cfs 0.036 af

Link 9L: DESIGN POINT 1 Inflow=0.27 cfs 0.030 af
Primary=0.27 cfs 0.030 af

Total Runoff Area = 3.093 ac Runoff Volume = 0.205 af Average Runoff Depth = 0.80"
88.12% Pervious = 2.726 ac 11.88% Impervious = 0.367 ac

Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT 1

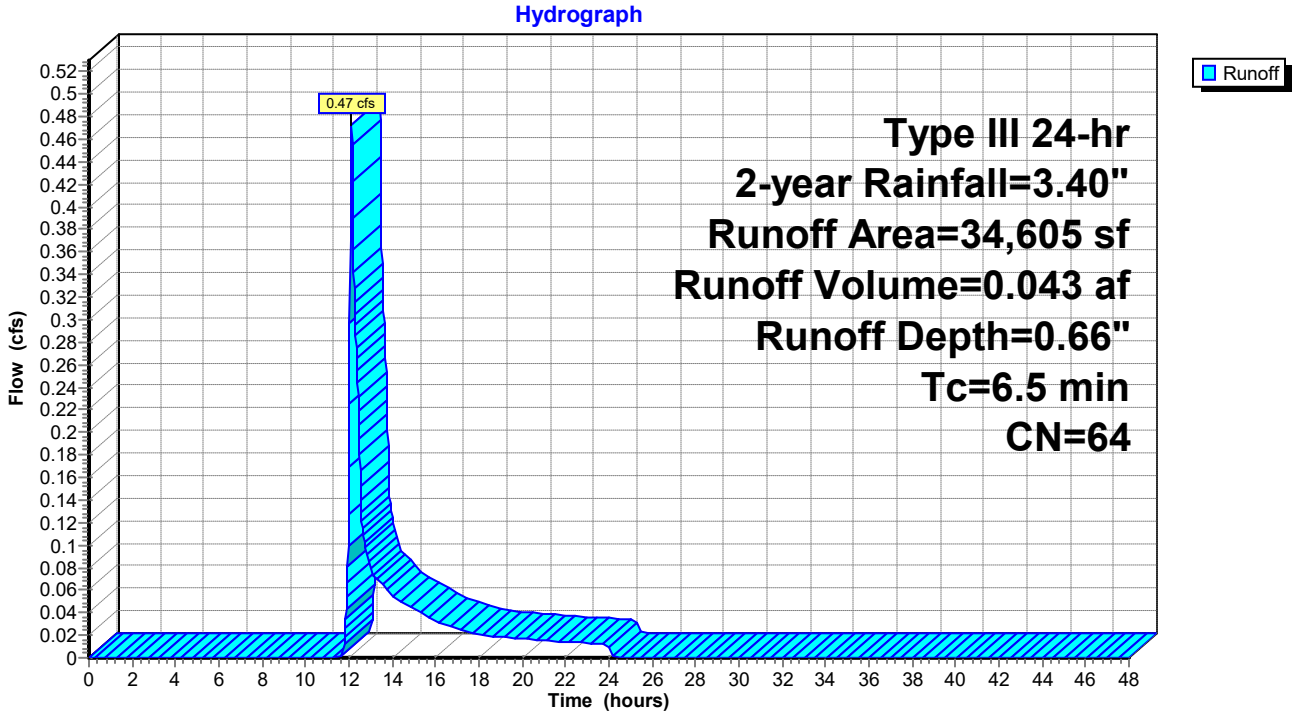
Runoff = 0.47 cfs @ 12.12 hrs, Volume= 0.043 af, Depth= 0.66"

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=3.40"

	Area (sf)	CN	Description
*	476	98	House Roof, HSG B
	3,430	85	Gravel roads, HSG B
*	34	98	Old Well, HSG B
	30,665	61	>75% Grass cover, Good, HSG B
	34,605	64	Weighted Average
	34,095		98.53% Pervious Area
	510		1.47% Impervious Area

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

Subcatchment 1S: XDA-1 TO DESIGN POINT 1



Summary for Subcatchment 2S: XDA-2 TO DESIGN POINT 2

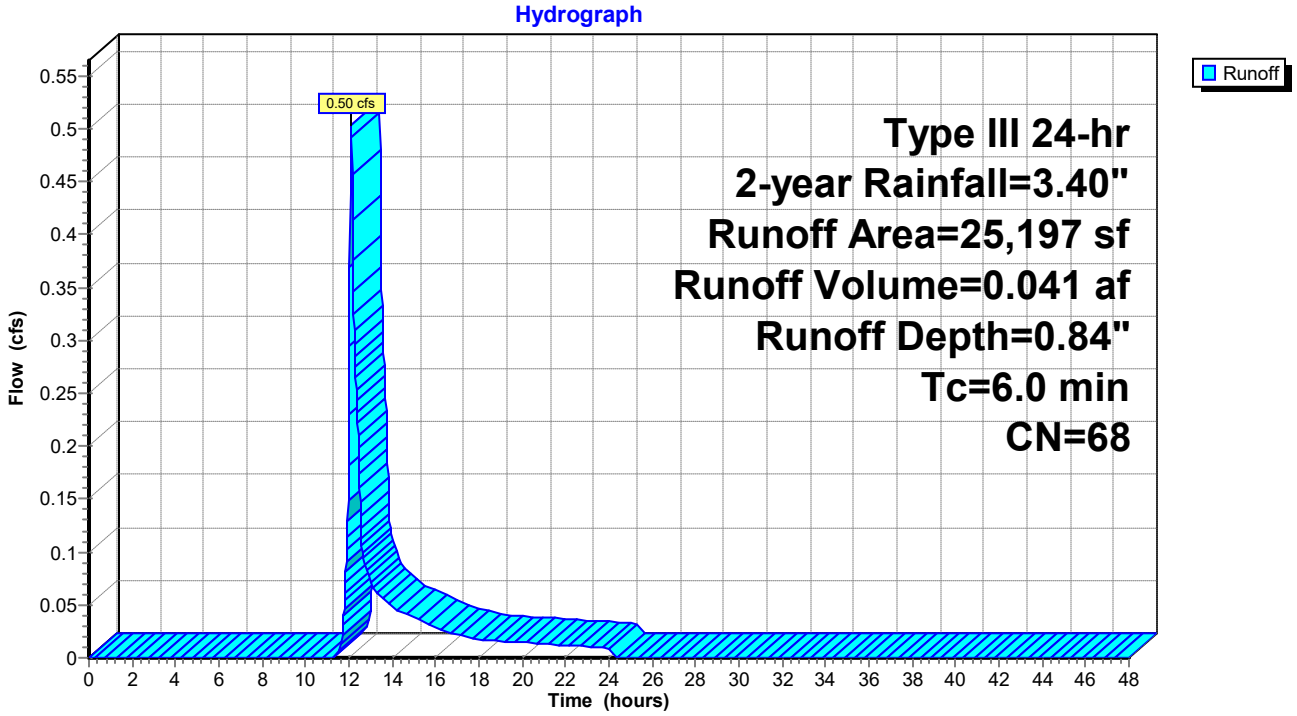
Runoff = 0.50 cfs @ 12.10 hrs, Volume= 0.041 af, Depth= 0.84"

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=3.40"

	Area (sf)	CN	Description
*	4,487	98	Impervious surfaces, HSG B
*	308	85	Gravel walk, HSG B
*	316	85	Gravel driveway, HSG B
	20,086	61	>75% Grass cover, Good, HSG B
	25,197	68	Weighted Average
	20,710		82.19% Pervious Area
	4,487		17.81% Impervious Area

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

Subcatchment 2S: XDA-2 TO DESIGN POINT 2



Summary for Subcatchment 3S: XDA-3 TO DESIGN POINT 3

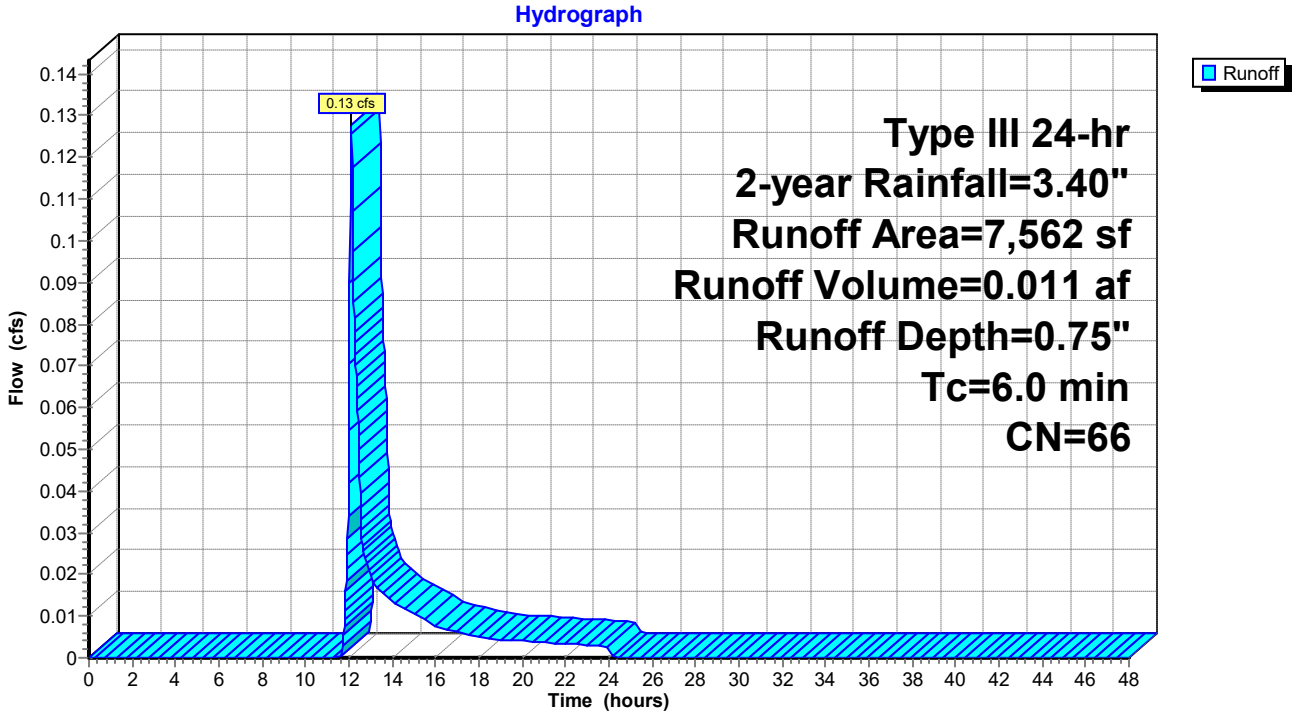
Runoff = 0.13 cfs @ 12.10 hrs, Volume= 0.011 af, Depth= 0.75"

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=3.40"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
	6,086	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,067		93.45% Pervious Area
	495		6.55% Impervious Area

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

Subcatchment 3S: XDA-3 TO DESIGN POINT 3



Summary for Subcatchment 4S: FDA-1.1 TO SW PRACTICE

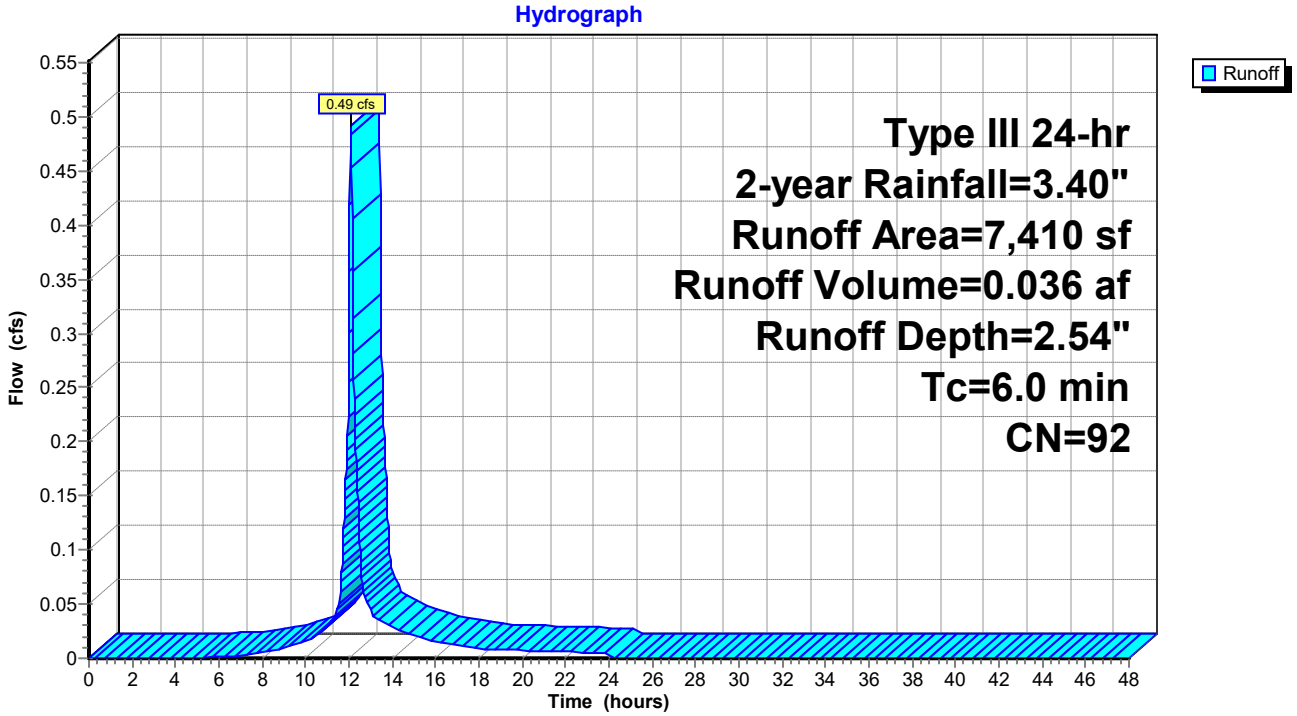
Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 2.54"
Routed to Pond 10P : SW MANAGEMENT PRACTICE

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=3.40"

	Area (sf)	CN	Description
*	6,266	98	Impervious Surfaces, HSG B
	1,144	61	>75% Grass cover, Good, HSG B
	7,410	92	Weighted Average
	1,144		15.44% Pervious Area
	6,266		84.56% Impervious Area

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

Subcatchment 4S: FDA-1.1 TO SW PRACTICE



Summary for Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1

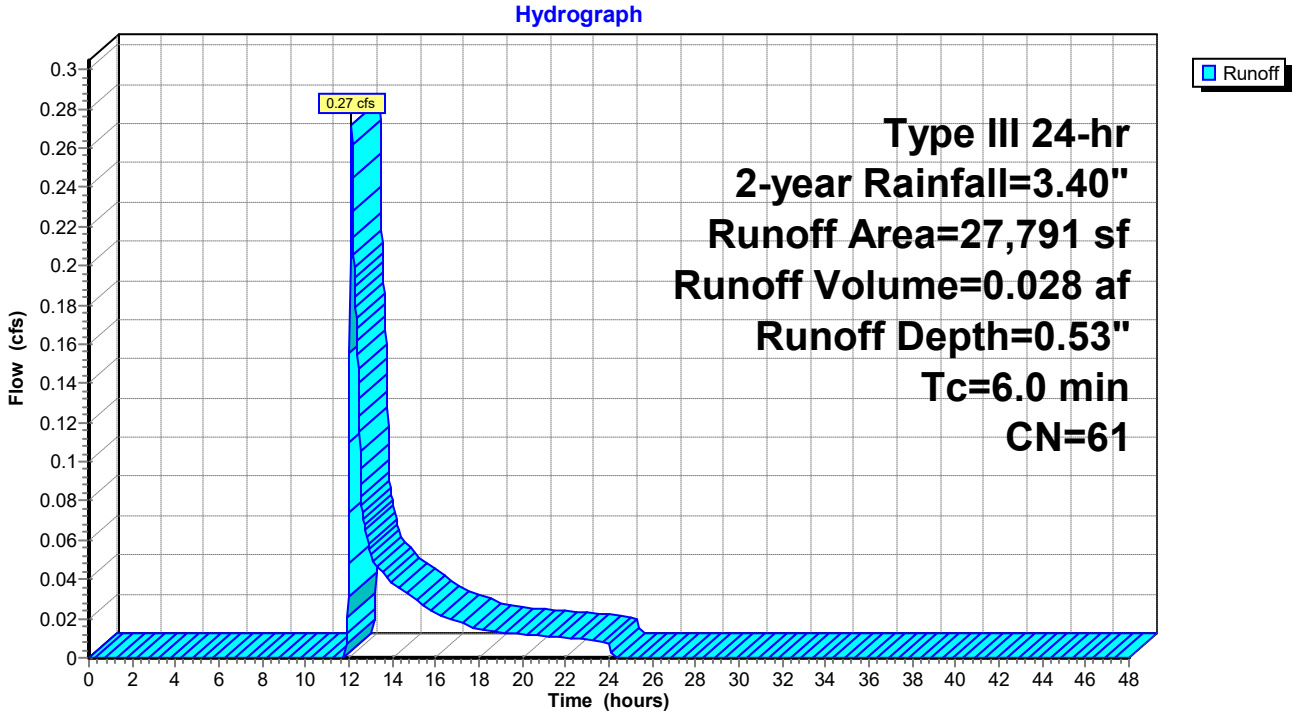
Runoff = 0.27 cfs @ 12.12 hrs, Volume= 0.028 af, Depth= 0.53"
Routed to Link 9L : DESIGN POINT 1

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=3.40"

Area (sf)	CN	Description
27,623	61	>75% Grass cover, Good, HSG B
168	98	Unconnected pavement, HSG B
27,791	61	Weighted Average
27,623		99.40% Pervious Area
168		0.60% Impervious Area
168		100.00% Unconnected

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

Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1



Summary for Subcatchment 6S: FDA-2 TO DESIGN POINT 2

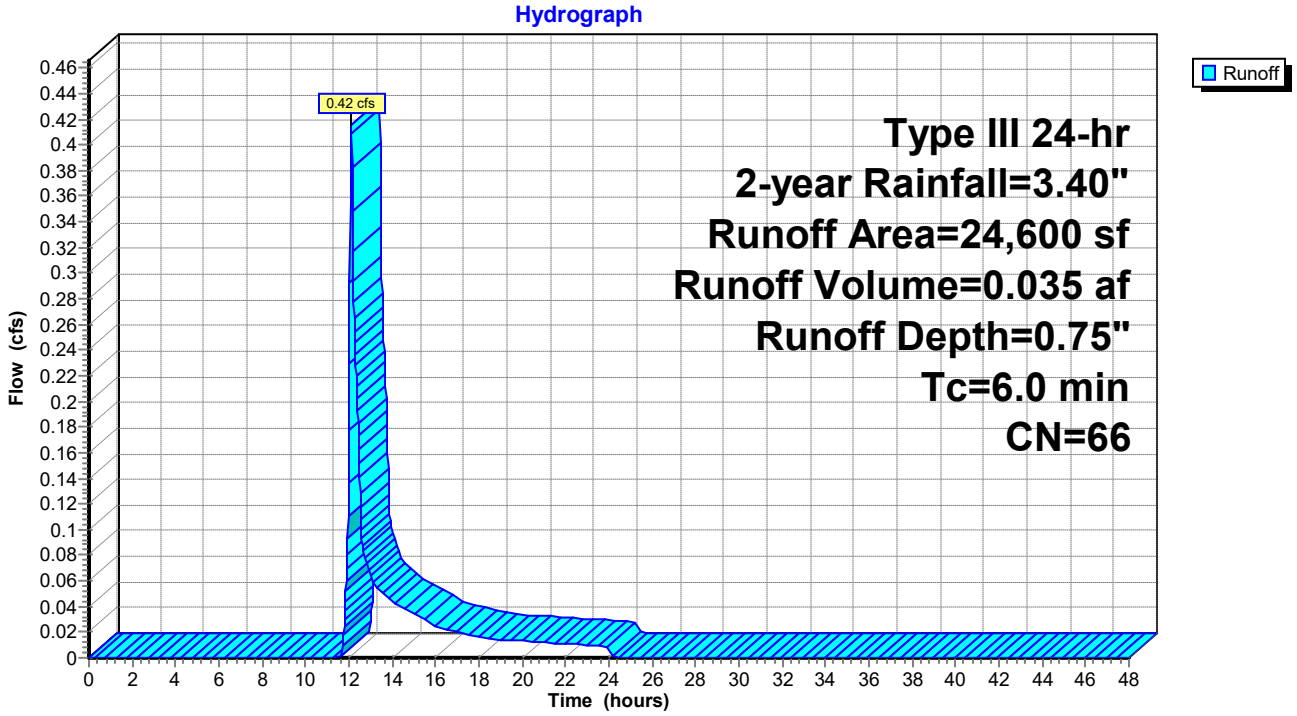
Runoff = 0.42 cfs @ 12.10 hrs, Volume= 0.035 af, Depth= 0.75"

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=3.40"

	Area (sf)	CN	Description
*	3,568	98	Impervious surfaces, HSG B
	4,500	55	Woods, Good, HSG B
	1,875	77	Woods, Good, HSG D
	14,657	61	>75% Grass cover, Good, HSG B
	24,600	66	Weighted Average
	21,032		85.50% Pervious Area
	3,568		14.50% Impervious Area

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

Subcatchment 6S: FDA-2 TO DESIGN POINT 2



Summary for Subcatchment 7S: FDA-3 TO DESIGN POINT 3

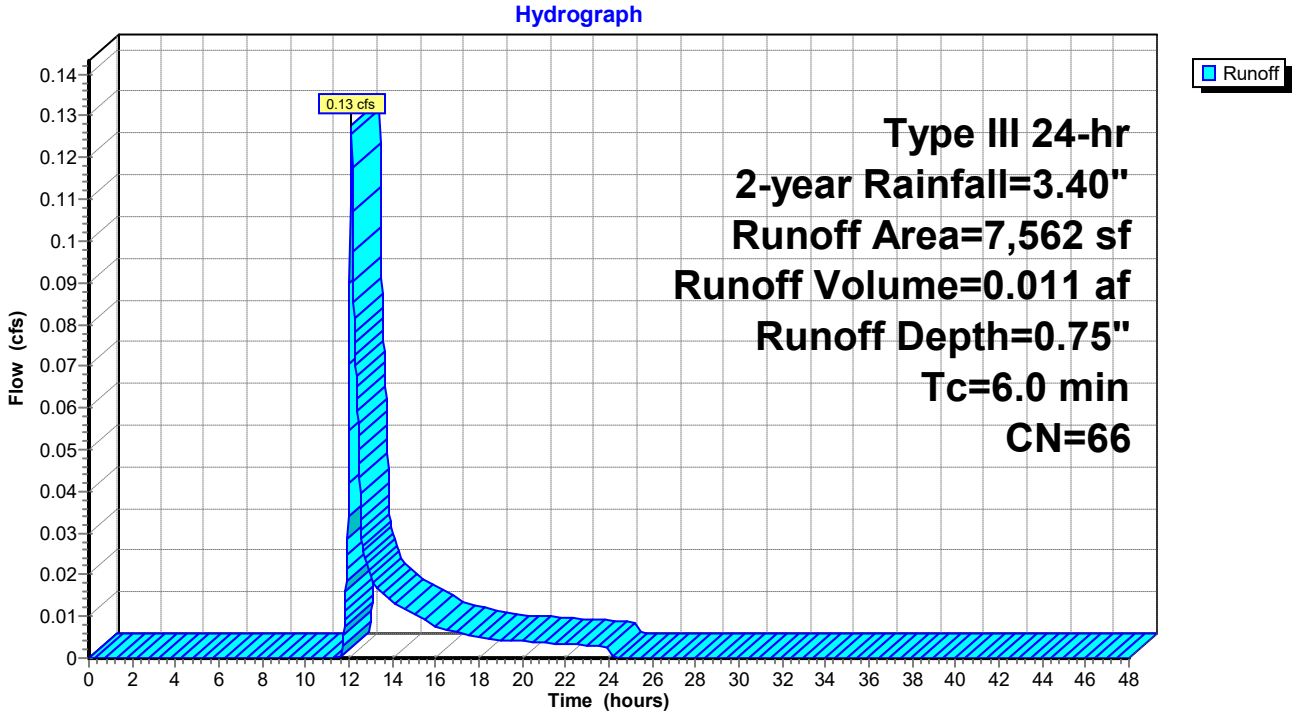
Runoff = 0.13 cfs @ 12.10 hrs, Volume= 0.011 af, Depth= 0.75"

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=3.40"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
*	12	98	Impervious Fire Pit
	6,074	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,055		93.30% Pervious Area
	507		6.70% Impervious Area

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

Subcatchment 7S: FDA-3 TO DESIGN POINT 3



Summary for Pond 10P: SW MANAGEMENT PRACTICE

Inflow Area = 0.170 ac, 84.56% Impervious, Inflow Depth = 2.54" for 2-year event
Inflow = 0.49 cfs @ 12.09 hrs, Volume= 0.036 af
Outflow = 0.07 cfs @ 12.59 hrs, Volume= 0.036 af, Atten= 86%, Lag= 30.5 min
Discarded = 0.04 cfs @ 11.40 hrs, Volume= 0.034 af
Primary = 0.03 cfs @ 12.59 hrs, Volume= 0.002 af
Routed to Link 9L : DESIGN POINT 1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Peak Elev= 478.60' @ 12.59 hrs Surf.Area= 867 sf Storage= 575 cf

Plug-Flow detention time= 102.9 min calculated for 0.036 af (100% of inflow)
Center-of-Mass det. time= 102.9 min (898.5 - 795.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	477.50'	538 cf	**21.67'W x 40.00'L x 2.04'H Field A** 1,769 cf Overall - 424 cf Embedded = 1,345 cf x 40.0% Voids
#2A	478.00'	424 cf	**Cultec C-100HD** x 30 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 6 rows
		962 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	478.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	477.50'	**2.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.04 cfs @ 11.40 hrs HW=477.52' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.03 cfs @ 12.59 hrs HW=478.60' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 1.09 fps)

Pond 10P: SW MANAGEMENT PRACTICE - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 6 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

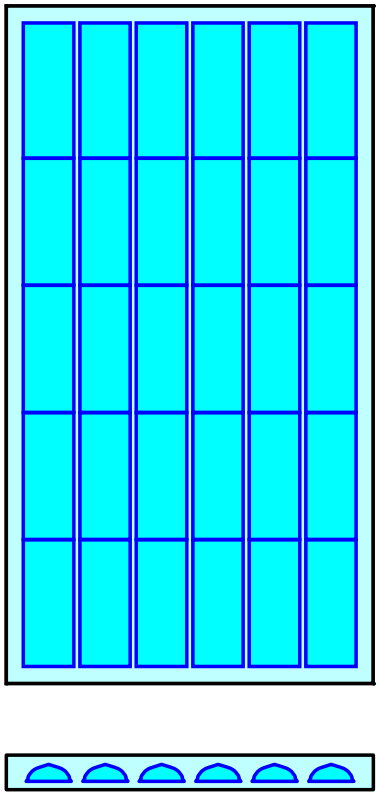
5 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 38.00' Row Length +12.0" End Stone x 2 = 40.00' Base Length
6 Rows x 36.0" Wide + 4.0" Spacing x 5 + 12.0" Side Stone x 2 = 21.67' Base Width
6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

30 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 6 Rows = 424.4 cf Chamber Storage

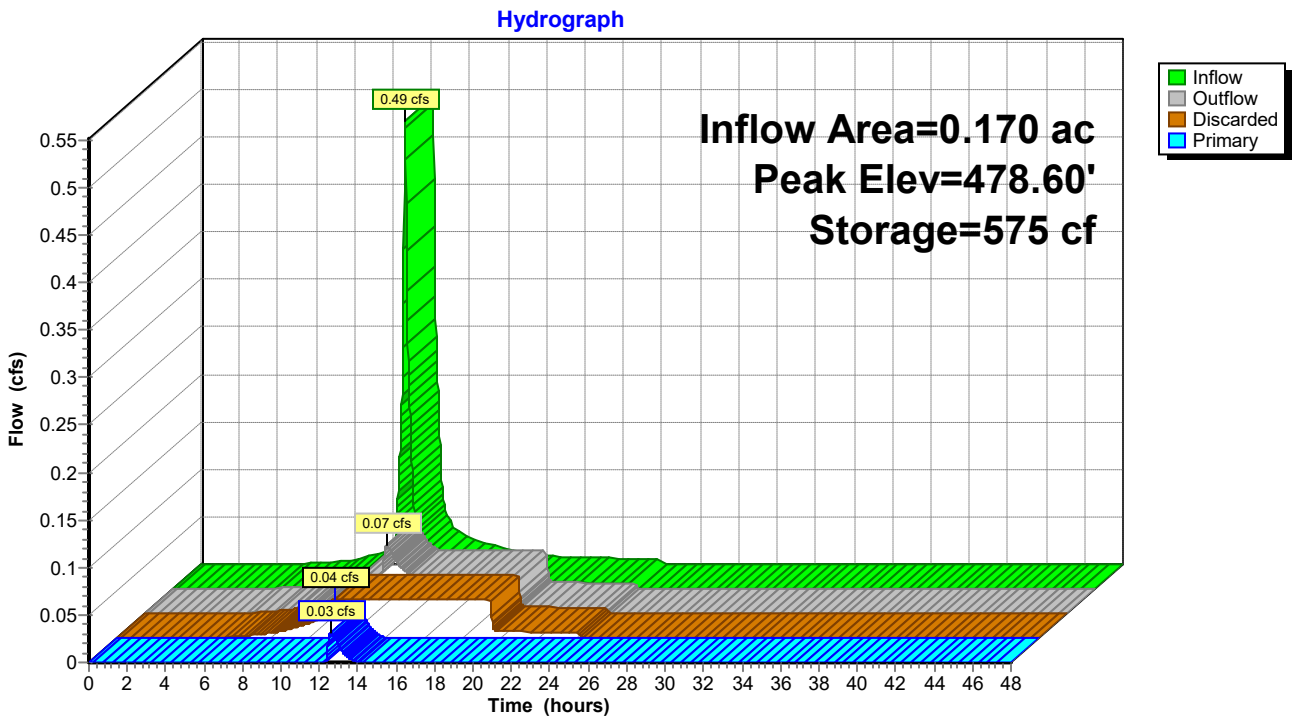
1,769.4 cf Field - 424.4 cf Chambers = 1,345.0 cf Stone x 40.0% Voids = 538.0 cf Stone Storage

Chamber Storage + Stone Storage = 962.4 cf = 0.022 af
Overall Storage Efficiency = 54.4%
Overall System Size = 40.00' x 21.67' x 2.04'

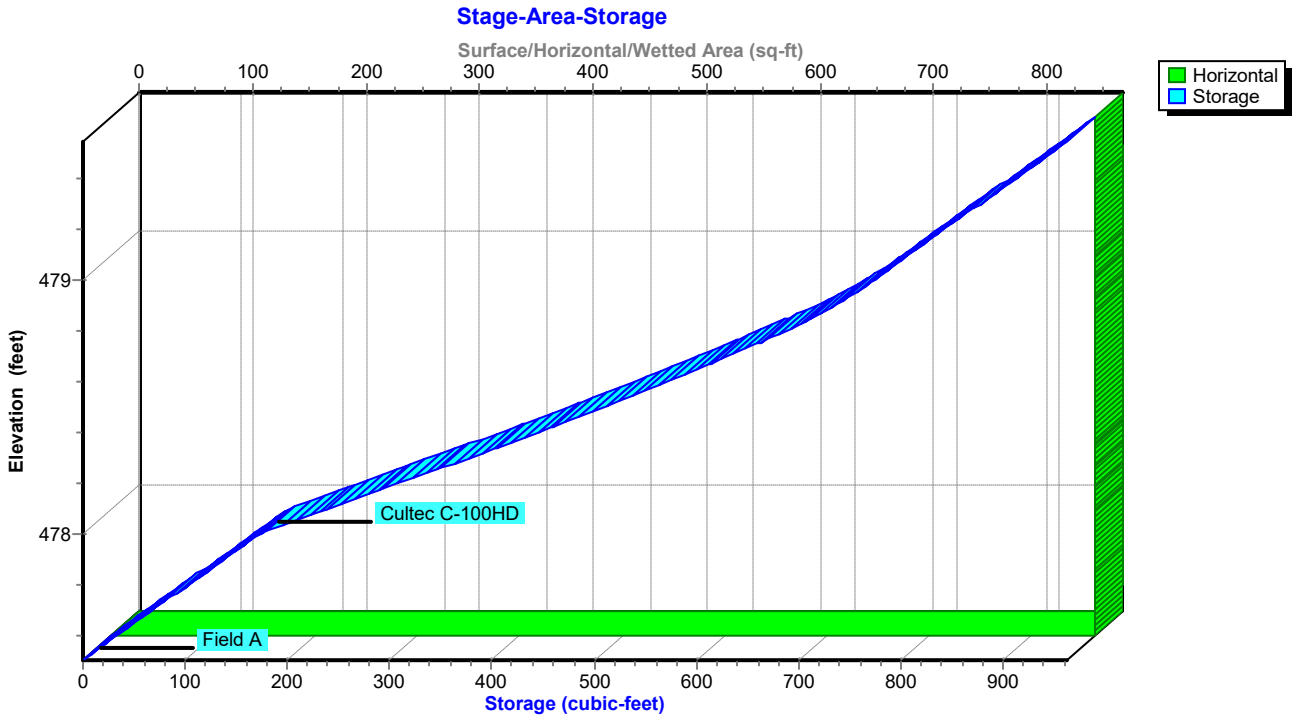
30 Chambers
65.5 cy Field
49.8 cy Stone



Pond 10P: SW MANAGEMENT PRACTICE



Pond 10P: SW MANAGEMENT PRACTICE

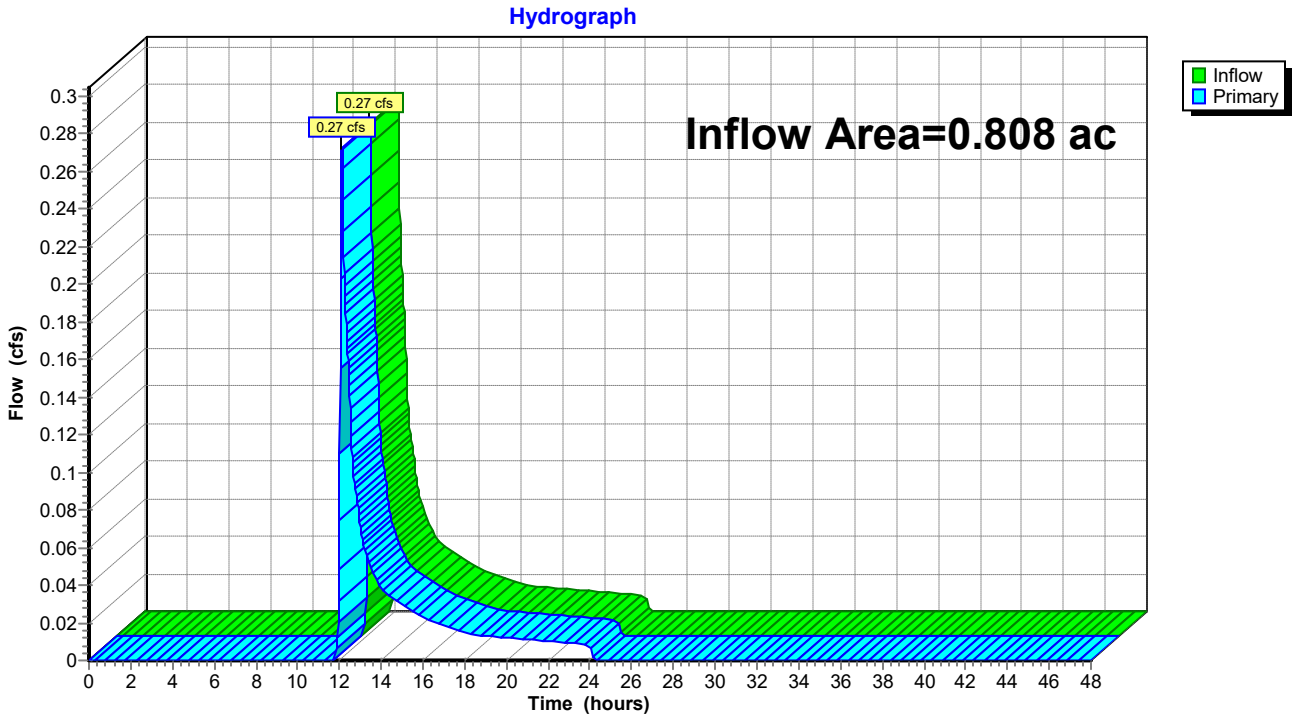


Summary for Link 9L: DESIGN POINT 1

Inflow Area = 0.808 ac, 18.28% Impervious, Inflow Depth = 0.44" for 2-year event
Inflow = 0.27 cfs @ 12.12 hrs, Volume= 0.030 af
Primary = 0.27 cfs @ 12.12 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 9L: DESIGN POINT 1



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=34,605 sf 1.47% Impervious Runoff Depth=1.63"
Tc=6.5 min CN=64 Runoff=1.41 cfs 0.108 af

Subcatchment 2S: XDA-2 TO DESIGN Runoff Area=25,197 sf 17.81% Impervious Runoff Depth=1.94"
Tc=6.0 min CN=68 Runoff=1.28 cfs 0.093 af

Subcatchment 3S: XDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.55% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=66 Runoff=0.35 cfs 0.026 af

Subcatchment 4S: FDA-1.1 TO SW Runoff Area=7,410 sf 84.56% Impervious Runoff Depth=4.17"
Tc=6.0 min CN=92 Runoff=0.79 cfs 0.059 af

Subcatchment 5S: FDA.1.2 TO DESIGN Runoff Area=27,791 sf 0.60% Impervious Runoff Depth=1.42"
Tc=6.0 min CN=61 Runoff=0.97 cfs 0.075 af

Subcatchment 6S: FDA-2 TO DESIGN Runoff Area=24,600 sf 14.50% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=66 Runoff=1.13 cfs 0.084 af

Subcatchment 7S: FDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.70% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=66 Runoff=0.35 cfs 0.026 af

Pond 10P: SW MANAGEMENT PRACTICE Peak Elev=478.88' Storage=726 cf Inflow=0.79 cfs 0.059 af
Discarded=0.04 cfs 0.044 af Primary=0.33 cfs 0.015 af Outflow=0.37 cfs 0.059 af

Link 9L: DESIGN POINT 1 Inflow=1.05 cfs 0.091 af
Primary=1.05 cfs 0.091 af

Total Runoff Area = 3.093 ac Runoff Volume = 0.471 af Average Runoff Depth = 1.83"
88.12% Pervious = 2.726 ac 11.88% Impervious = 0.367 ac

Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT 1

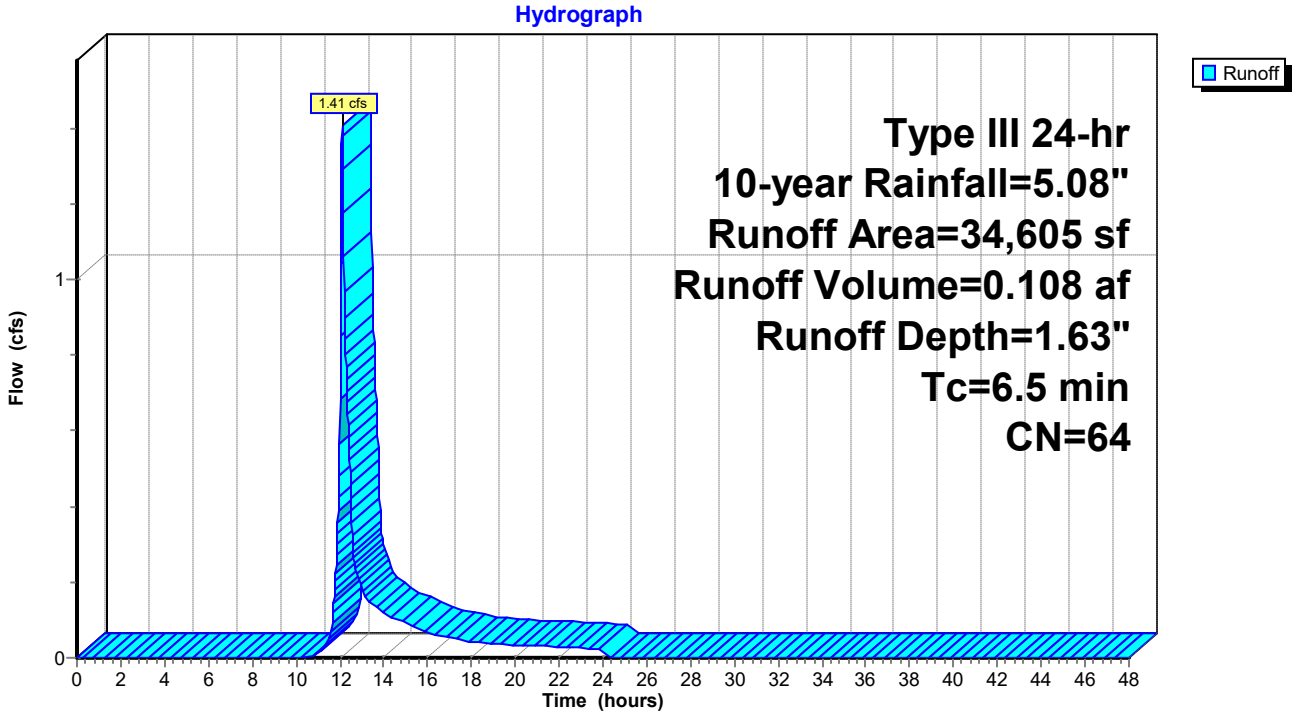
Runoff = 1.41 cfs @ 12.10 hrs, Volume= 0.108 af, Depth= 1.63"

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=5.08"

	Area (sf)	CN	Description
*	476	98	House Roof, HSG B
	3,430	85	Gravel roads, HSG B
*	34	98	Old Well, HSG B
	30,665	61	>75% Grass cover, Good, HSG B
	34,605	64	Weighted Average
	34,095		98.53% Pervious Area
	510		1.47% Impervious Area

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

Subcatchment 1S: XDA-1 TO DESIGN POINT 1



Summary for Subcatchment 2S: XDA-2 TO DESIGN POINT 2

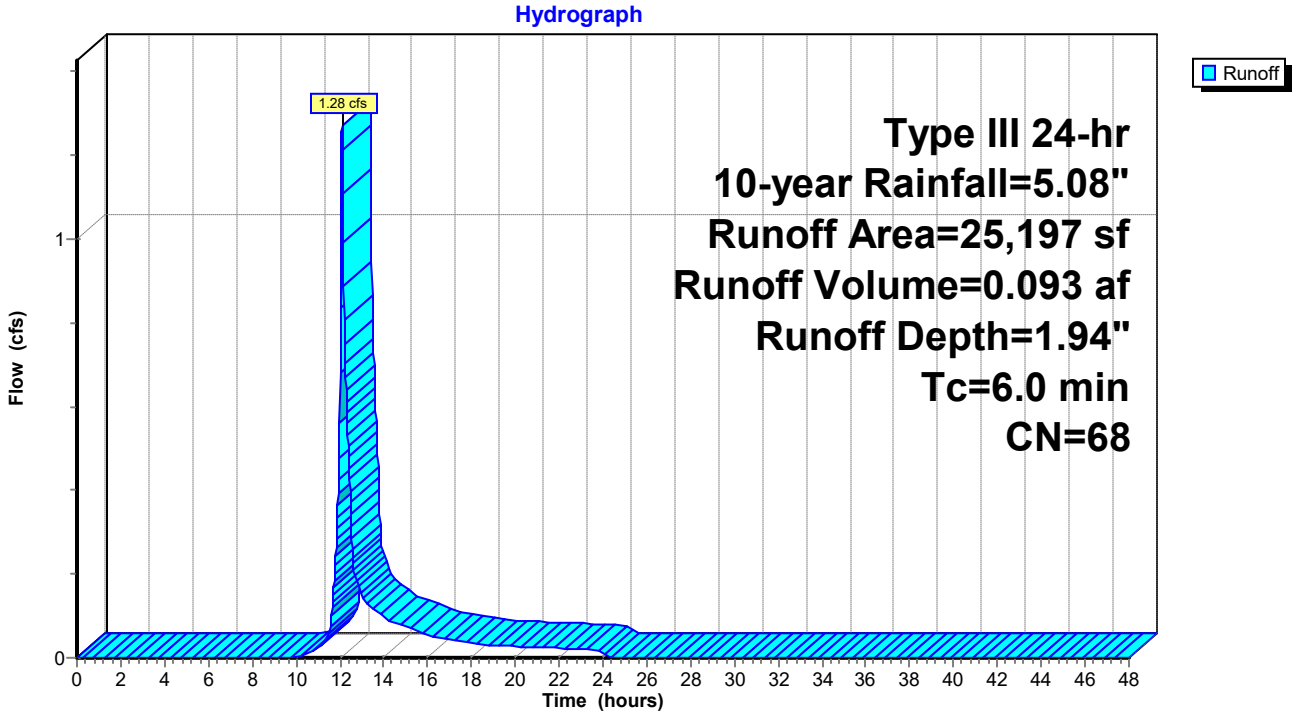
Runoff = 1.28 cfs @ 12.09 hrs, Volume= 0.093 af, Depth= 1.94"

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=5.08"

	Area (sf)	CN	Description
*	4,487	98	Impervious surfaces, HSG B
*	308	85	Gravel walk, HSG B
*	316	85	Gravel driveway, HSG B
	20,086	61	>75% Grass cover, Good, HSG B
	25,197	68	Weighted Average
	20,710		82.19% Pervious Area
	4,487		17.81% Impervious Area

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

Subcatchment 2S: XDA-2 TO DESIGN POINT 2



Summary for Subcatchment 3S: XDA-3 TO DESIGN POINT 3

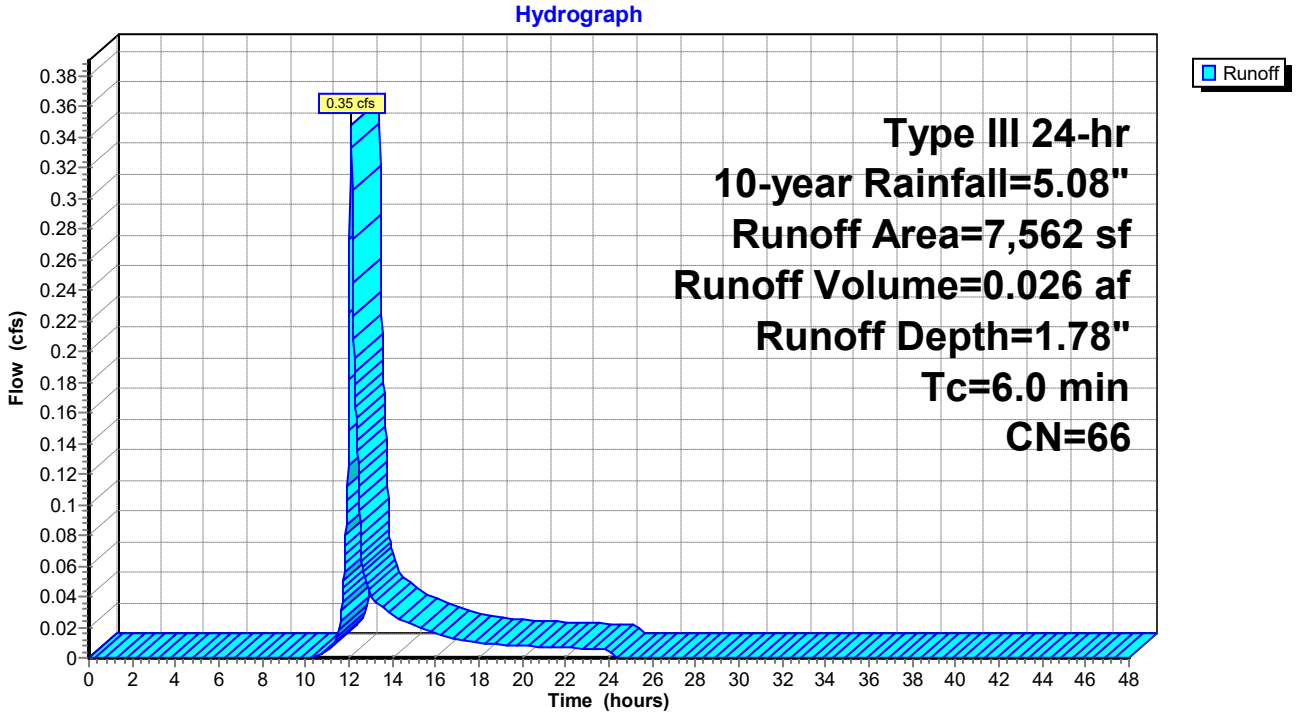
Runoff = 0.35 cfs @ 12.10 hrs, Volume= 0.026 af, Depth= 1.78"

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=5.08"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
	6,086	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,067		93.45% Pervious Area
	495		6.55% Impervious Area

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

Subcatchment 3S: XDA-3 TO DESIGN POINT 3



Summary for Subcatchment 4S: FDA-1.1 TO SW PRACTICE

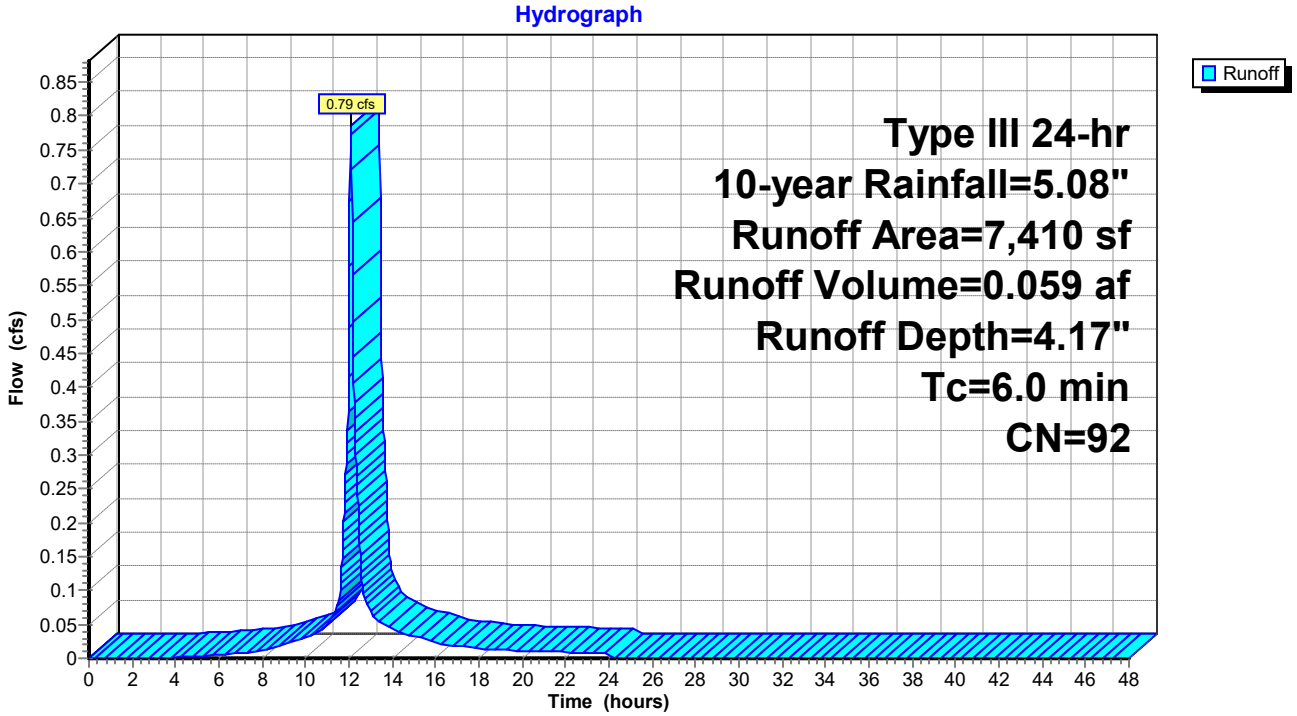
Runoff = 0.79 cfs @ 12.08 hrs, Volume= 0.059 af, Depth= 4.17"
Routed to Pond 10P : SW MANAGEMENT PRACTICE

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=5.08"

	Area (sf)	CN	Description
*	6,266	98	Impervious Surfaces, HSG B
	1,144	61	>75% Grass cover, Good, HSG B
	7,410	92	Weighted Average
	1,144		15.44% Pervious Area
	6,266		84.56% Impervious Area

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

Subcatchment 4S: FDA-1.1 TO SW PRACTICE



Summary for Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1

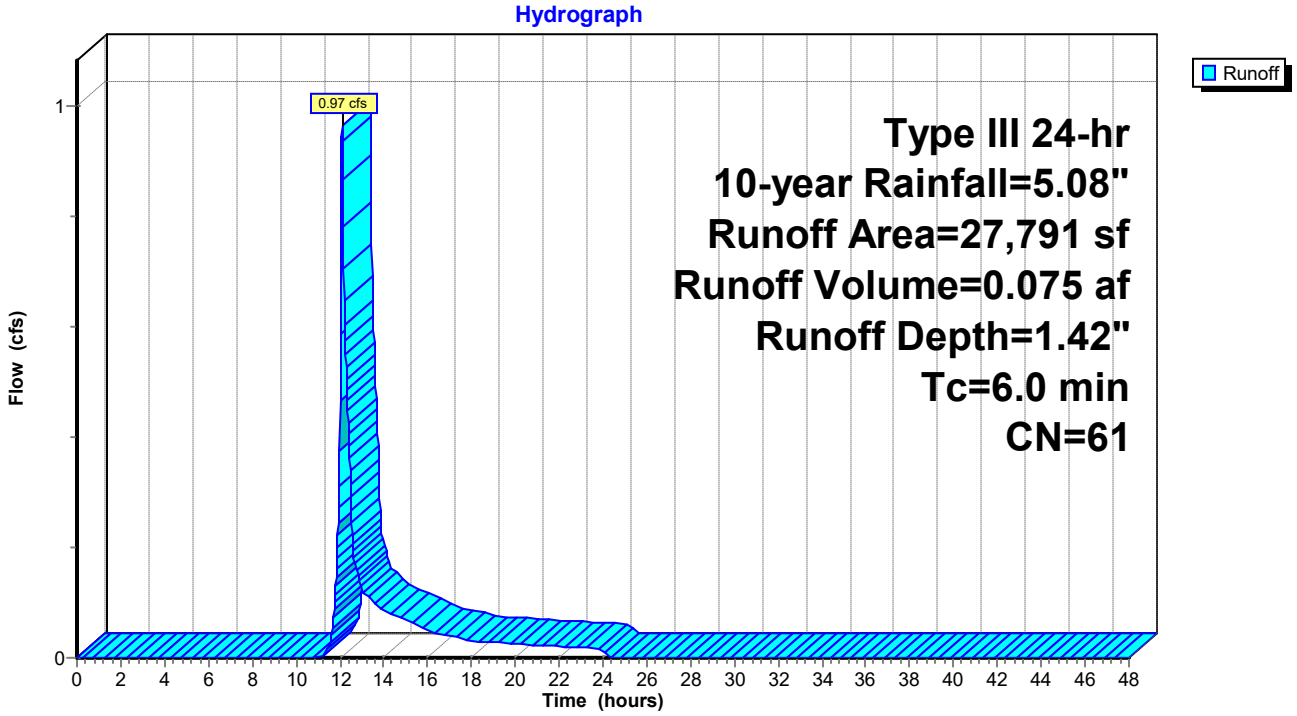
Runoff = 0.97 cfs @ 12.10 hrs, Volume= 0.075 af, Depth= 1.42"
Routed to Link 9L : DESIGN POINT 1

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=5.08"

Area (sf)	CN	Description
27,623	61	>75% Grass cover, Good, HSG B
168	98	Unconnected pavement, HSG B
27,791	61	Weighted Average
27,623		99.40% Pervious Area
168		0.60% Impervious Area
168		100.00% Unconnected

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

Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1



Summary for Subcatchment 6S: FDA-2 TO DESIGN POINT 2

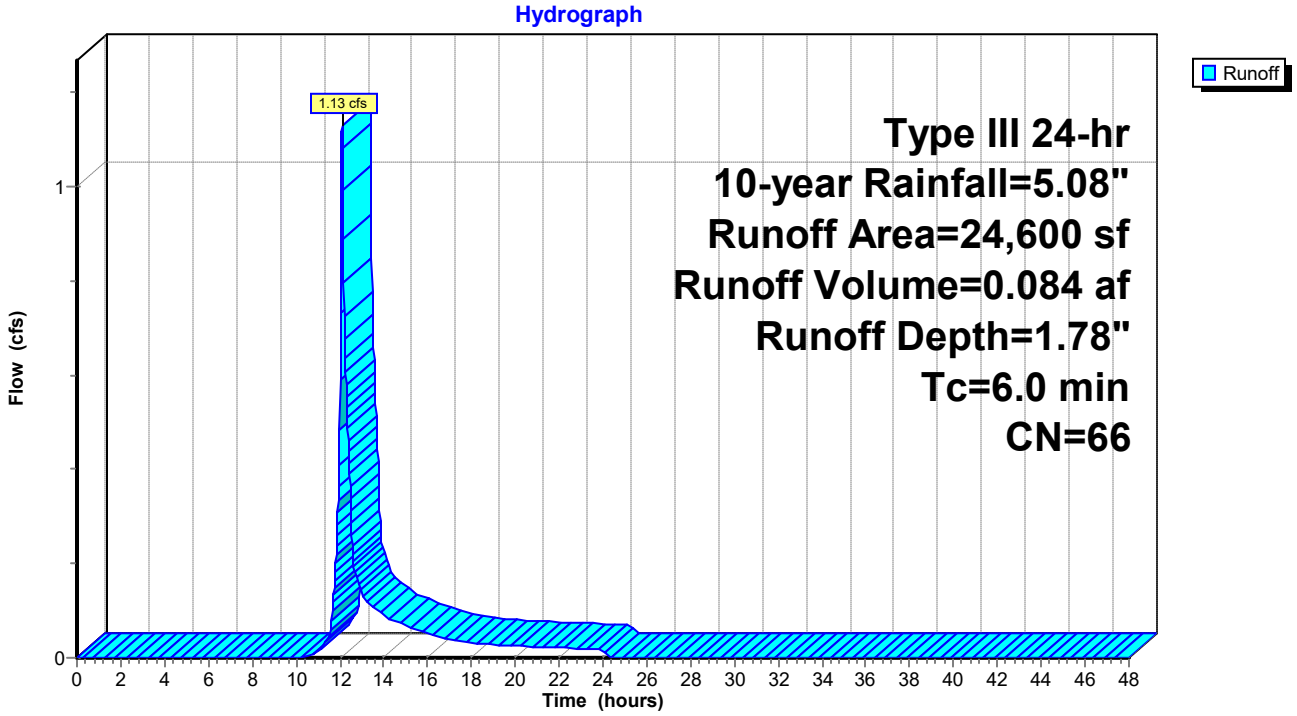
Runoff = 1.13 cfs @ 12.10 hrs, Volume= 0.084 af, Depth= 1.78"

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=5.08"

	Area (sf)	CN	Description
*	3,568	98	Impervious surfaces, HSG B
	4,500	55	Woods, Good, HSG B
	1,875	77	Woods, Good, HSG D
	14,657	61	>75% Grass cover, Good, HSG B
	24,600	66	Weighted Average
	21,032		85.50% Pervious Area
	3,568		14.50% Impervious Area

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

Subcatchment 6S: FDA-2 TO DESIGN POINT 2



Summary for Subcatchment 7S: FDA-3 TO DESIGN POINT 3

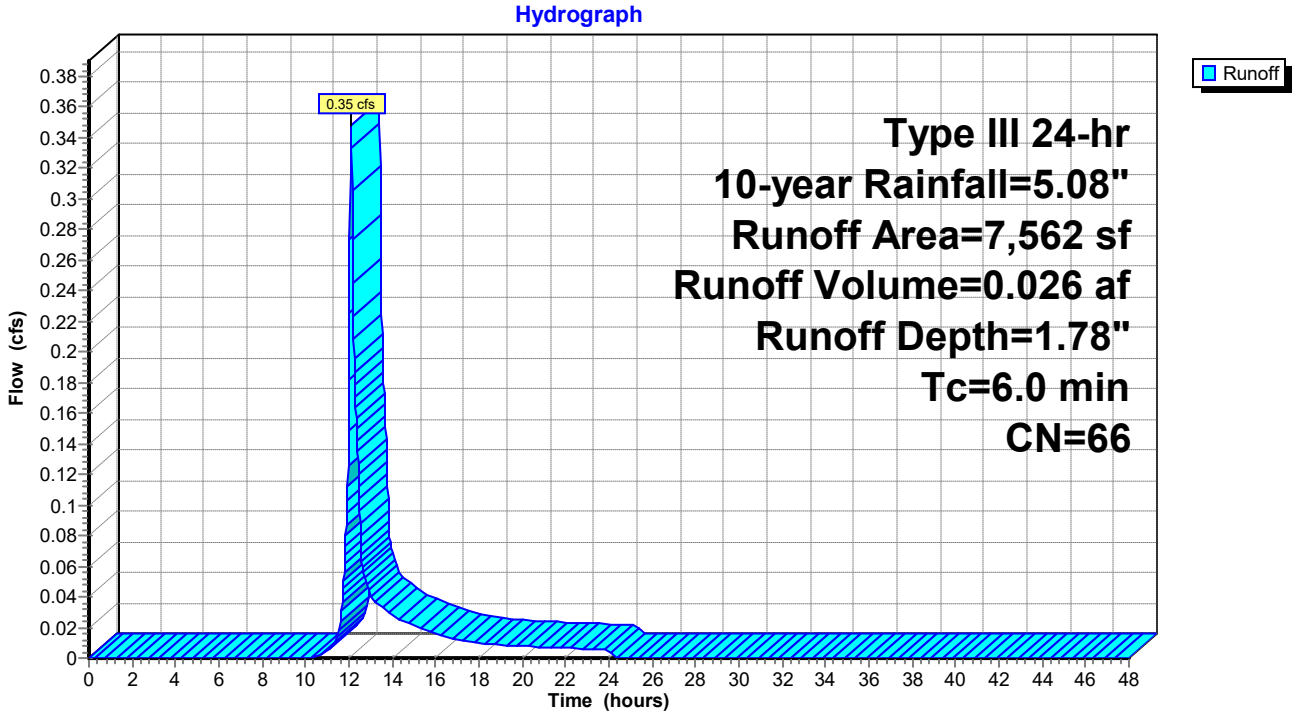
Runoff = 0.35 cfs @ 12.10 hrs, Volume= 0.026 af, Depth= 1.78"

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=5.08"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
*	12	98	Impervious Fire Pit
	6,074	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,055		93.30% Pervious Area
	507		6.70% Impervious Area

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

Subcatchment 7S: FDA-3 TO DESIGN POINT 3



Summary for Pond 10P: SW MANAGEMENT PRACTICE

Inflow Area = 0.170 ac, 84.56% Impervious, Inflow Depth = 4.17" for 10-year event
Inflow = 0.79 cfs @ 12.08 hrs, Volume= 0.059 af
Outflow = 0.37 cfs @ 12.25 hrs, Volume= 0.059 af, Atten= 53%, Lag= 9.7 min
Discarded = 0.04 cfs @ 10.62 hrs, Volume= 0.044 af
Primary = 0.33 cfs @ 12.25 hrs, Volume= 0.015 af
Routed to Link 9L : DESIGN POINT 1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Peak Elev= 478.88' @ 12.25 hrs Surf.Area= 867 sf Storage= 726 cf

Plug-Flow detention time= 85.7 min calculated for 0.059 af (100% of inflow)
Center-of-Mass det. time= 85.7 min (867.9 - 782.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	477.50'	538 cf	**21.67'W x 40.00'L x 2.04'H Field A** 1,769 cf Overall - 424 cf Embedded = 1,345 cf x 40.0% Voids
#2A	478.00'	424 cf	**Cultec C-100HD** x 30 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 6 rows
		962 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	478.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	477.50'	**2.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.04 cfs @ 10.62 hrs HW=477.52' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.33 cfs @ 12.25 hrs HW=478.88' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.33 cfs @ 2.09 fps)

Pond 10P: SW MANAGEMENT PRACTICE - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 6 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

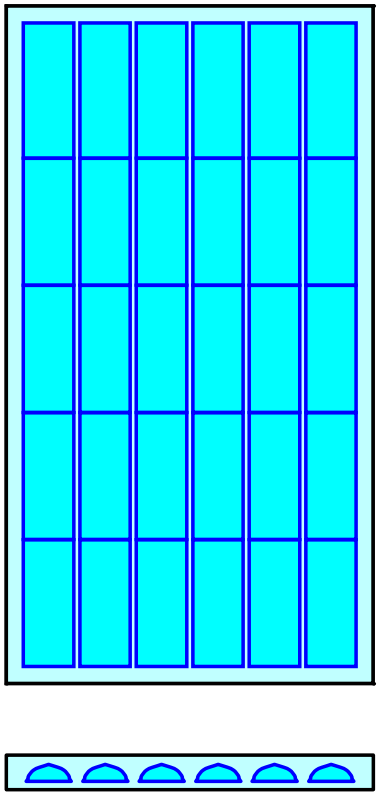
5 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 38.00' Row Length +12.0" End Stone x 2 = 40.00' Base Length
6 Rows x 36.0" Wide + 4.0" Spacing x 5 + 12.0" Side Stone x 2 = 21.67' Base Width
6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

30 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 6 Rows = 424.4 cf Chamber Storage

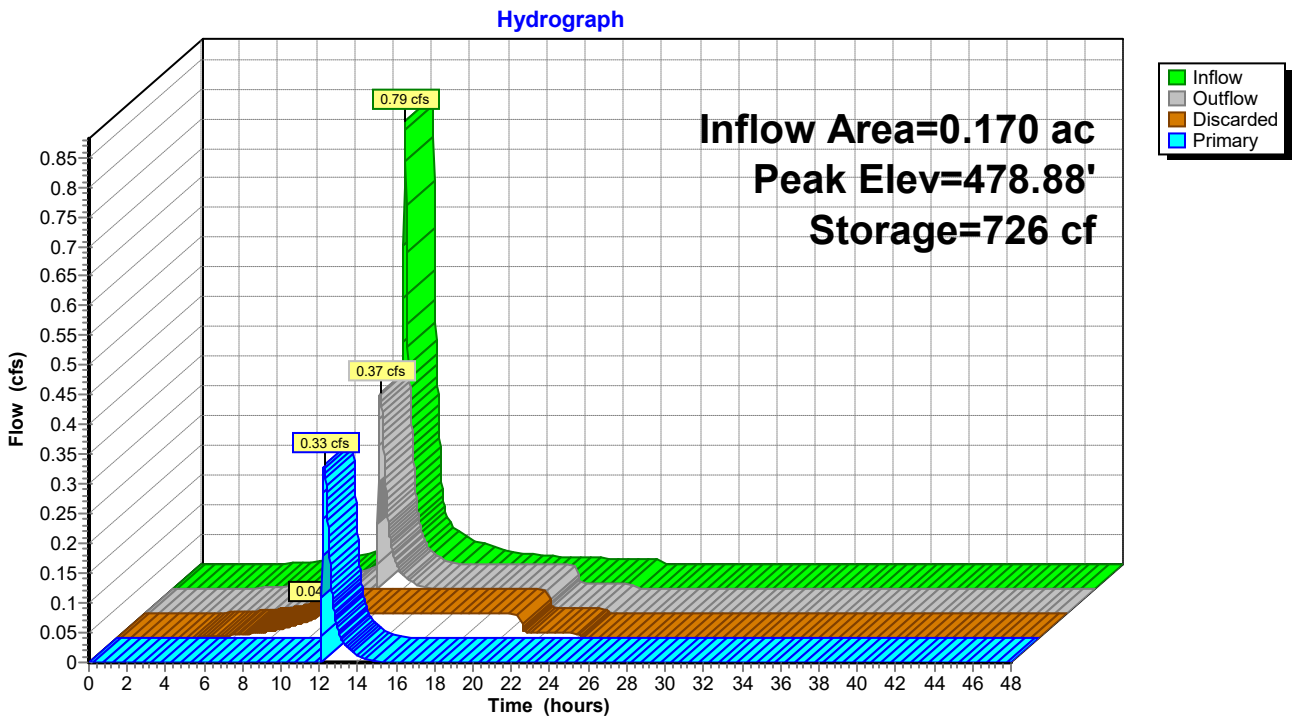
1,769.4 cf Field - 424.4 cf Chambers = 1,345.0 cf Stone x 40.0% Voids = 538.0 cf Stone Storage

Chamber Storage + Stone Storage = 962.4 cf = 0.022 af
Overall Storage Efficiency = 54.4%
Overall System Size = 40.00' x 21.67' x 2.04'

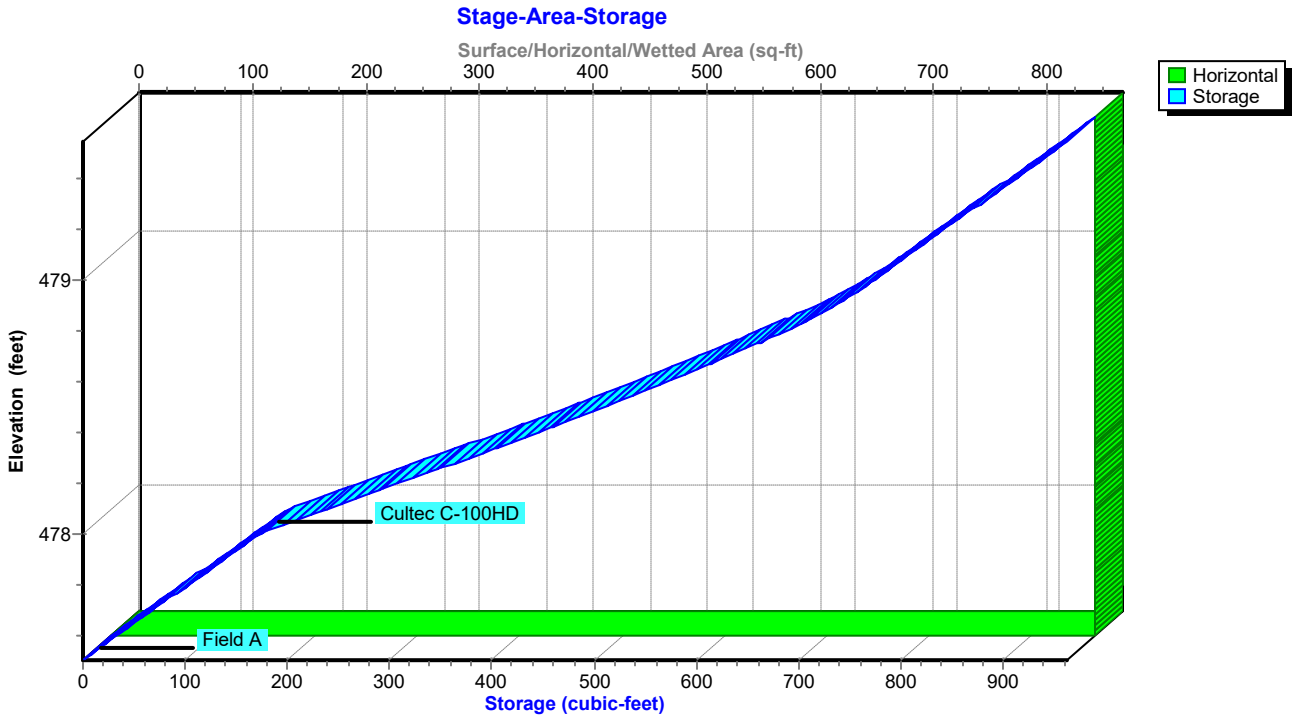
30 Chambers
65.5 cy Field
49.8 cy Stone



Pond 10P: SW MANAGEMENT PRACTICE



Pond 10P: SW MANAGEMENT PRACTICE

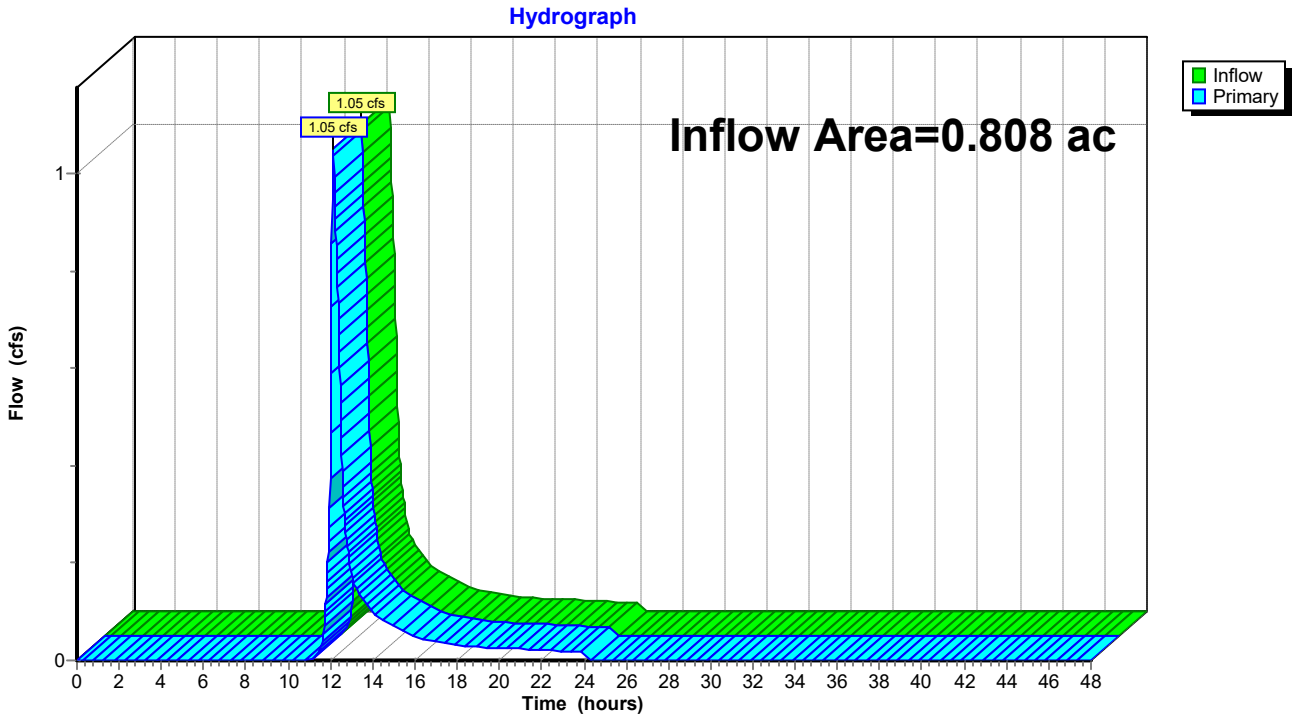


Summary for Link 9L: DESIGN POINT 1

Inflow Area = 0.808 ac, 18.28% Impervious, Inflow Depth = 1.35" for 10-year event
Inflow = 1.05 cfs @ 12.13 hrs, Volume= 0.091 af
Primary = 1.05 cfs @ 12.13 hrs, Volume= 0.091 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 9L: DESIGN POINT 1



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=34,605 sf 1.47% Impervious Runoff Depth=2.54"
Tc=6.5 min CN=64 Runoff=2.27 cfs 0.168 af

Subcatchment 2S: XDA-2 TO DESIGN Runoff Area=25,197 sf 17.81% Impervious Runoff Depth=2.92"
Tc=6.0 min CN=68 Runoff=1.96 cfs 0.141 af

Subcatchment 3S: XDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.55% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=66 Runoff=0.55 cfs 0.039 af

Subcatchment 4S: FDA-1.1 TO SW Runoff Area=7,410 sf 84.56% Impervious Runoff Depth=5.44"
Tc=6.0 min CN=92 Runoff=1.01 cfs 0.077 af

Subcatchment 5S: FDA.1.2 TO DESIGN Runoff Area=27,791 sf 0.60% Impervious Runoff Depth=2.26"
Tc=6.0 min CN=61 Runoff=1.63 cfs 0.120 af

Subcatchment 6S: FDA-2 TO DESIGN Runoff Area=24,600 sf 14.50% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=66 Runoff=1.78 cfs 0.128 af

Subcatchment 7S: FDA-3 TO DESIGN POINT Runoff Area=7,562 sf 6.70% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=66 Runoff=0.55 cfs 0.039 af

Pond 10P: SW MANAGEMENT PRACTICE Peak Elev=479.18' Storage=836 cf Inflow=1.01 cfs 0.077 af
Discarded=0.04 cfs 0.049 af Primary=0.62 cfs 0.028 af Outflow=0.66 cfs 0.077 af

Link 9L: DESIGN POINT 1 Inflow=2.12 cfs 0.148 af
Primary=2.12 cfs 0.148 af

Total Runoff Area = 3.093 ac Runoff Volume = 0.713 af Average Runoff Depth = 2.77"
88.12% Pervious = 2.726 ac 11.88% Impervious = 0.367 ac

Summary for Subcatchment 1S: XDA-1 TO DESIGN POINT 1

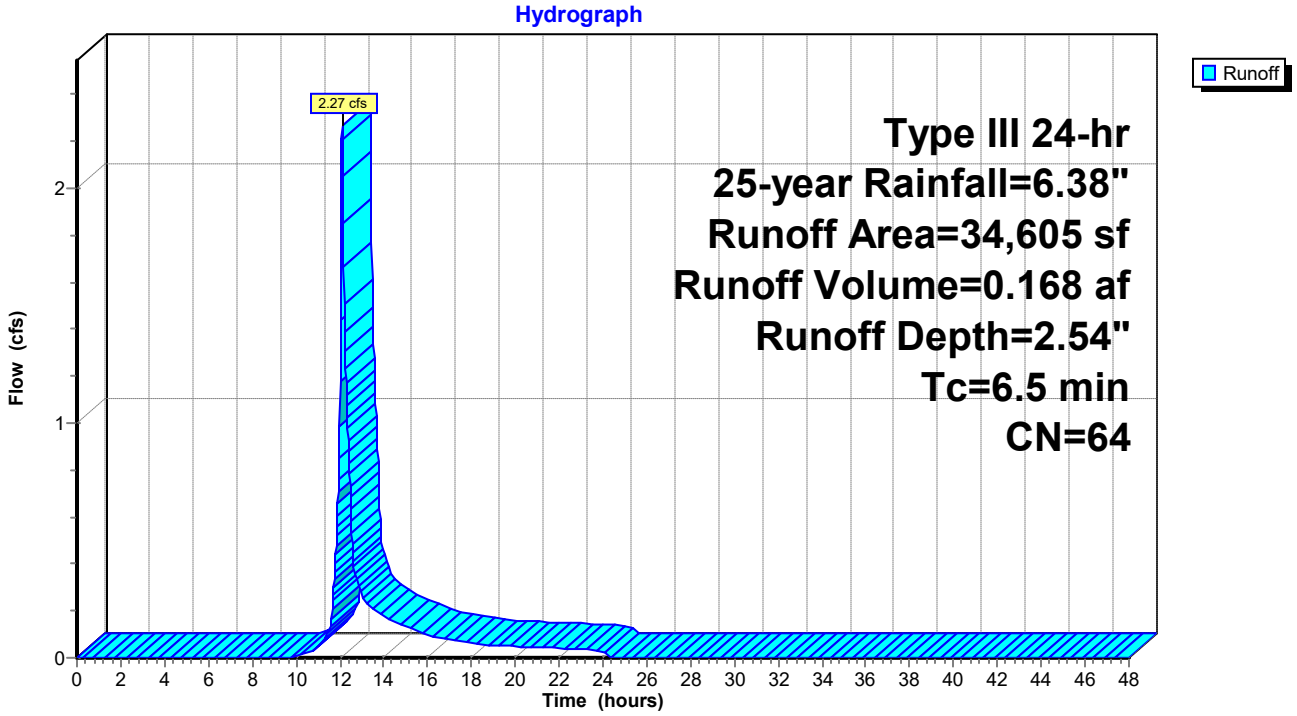
Runoff = 2.27 cfs @ 12.10 hrs, Volume= 0.168 af, Depth= 2.54"

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=6.38"

	Area (sf)	CN	Description
*	476	98	House Roof, HSG B
	3,430	85	Gravel roads, HSG B
*	34	98	Old Well, HSG B
	30,665	61	>75% Grass cover, Good, HSG B
	34,605	64	Weighted Average
	34,095		98.53% Pervious Area
	510		1.47% Impervious Area

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

Subcatchment 1S: XDA-1 TO DESIGN POINT 1



Summary for Subcatchment 2S: XDA-2 TO DESIGN POINT 2

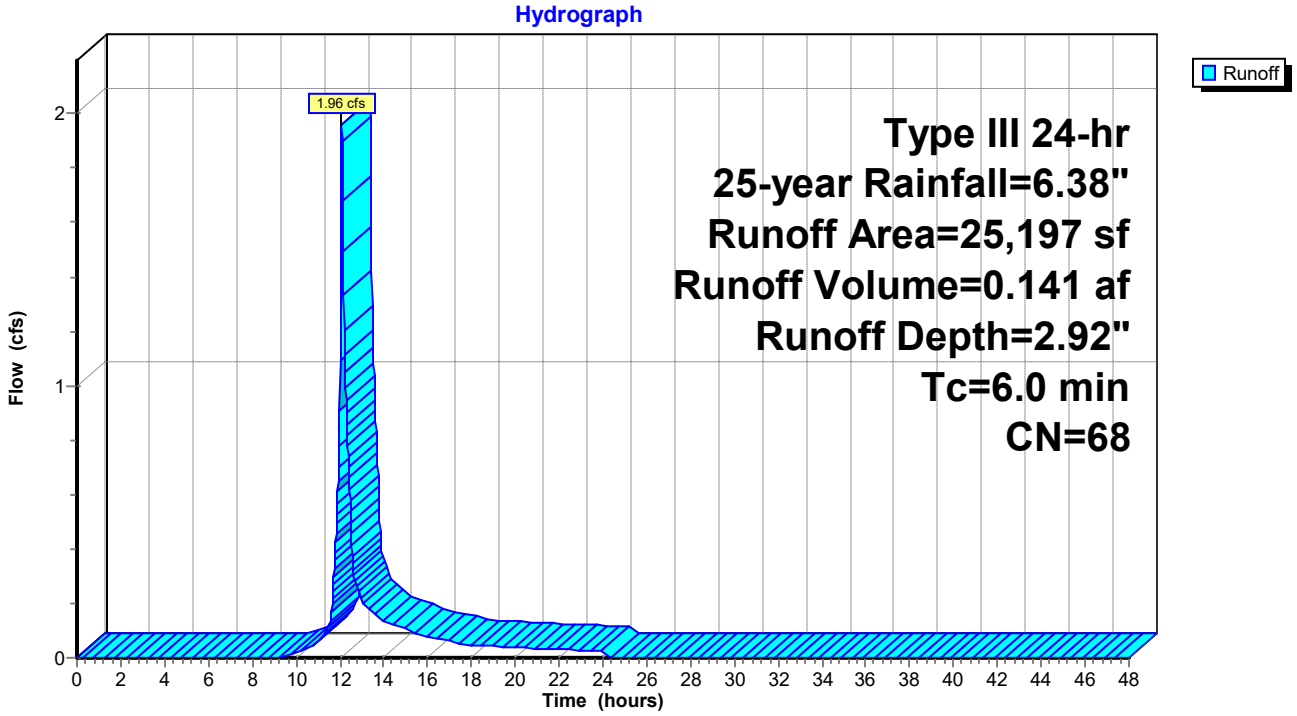
Runoff = 1.96 cfs @ 12.09 hrs, Volume= 0.141 af, Depth= 2.92"

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=6.38"

	Area (sf)	CN	Description
*	4,487	98	Impervious surfaces, HSG B
*	308	85	Gravel walk, HSG B
*	316	85	Gravel driveway, HSG B
	20,086	61	>75% Grass cover, Good, HSG B
	25,197	68	Weighted Average
	20,710		82.19% Pervious Area
	4,487		17.81% Impervious Area

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

Subcatchment 2S: XDA-2 TO DESIGN POINT 2



Summary for Subcatchment 3S: XDA-3 TO DESIGN POINT 3

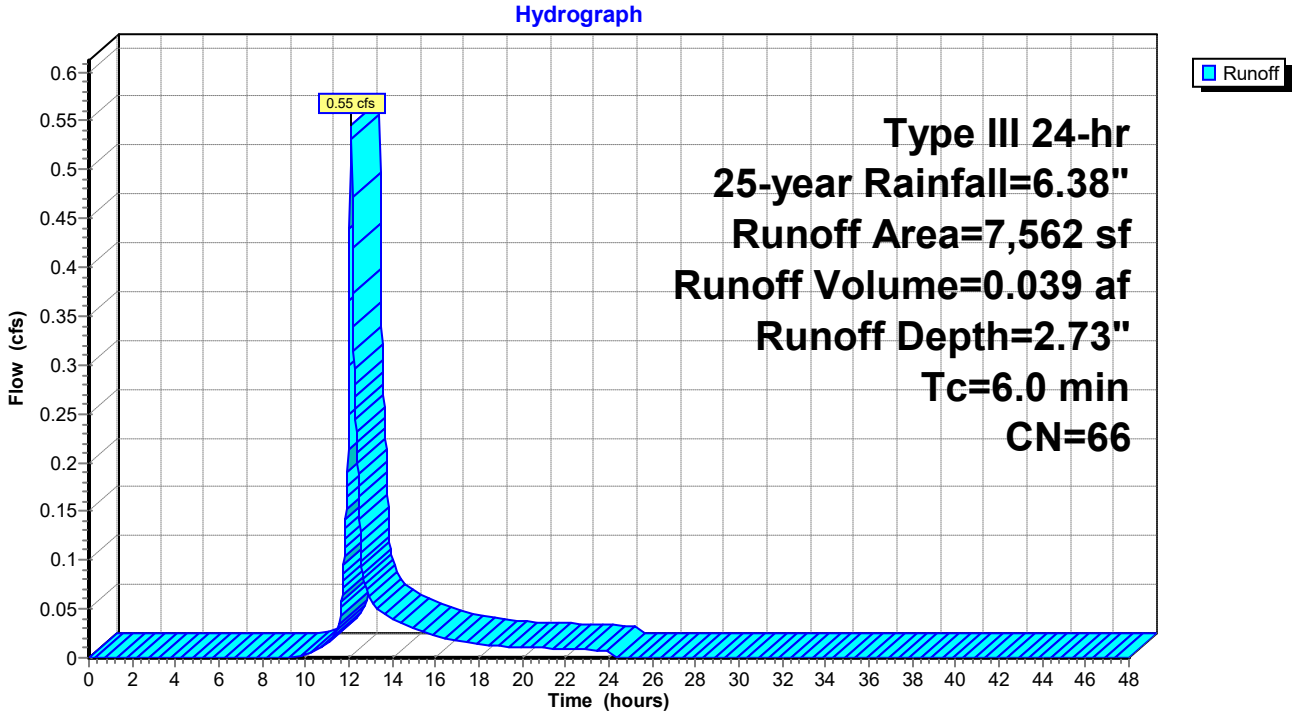
Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 2.73"

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=6.38"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
	6,086	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,067		93.45% Pervious Area
	495		6.55% Impervious Area

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

Subcatchment 3S: XDA-3 TO DESIGN POINT 3



Summary for Subcatchment 4S: FDA-1.1 TO SW PRACTICE

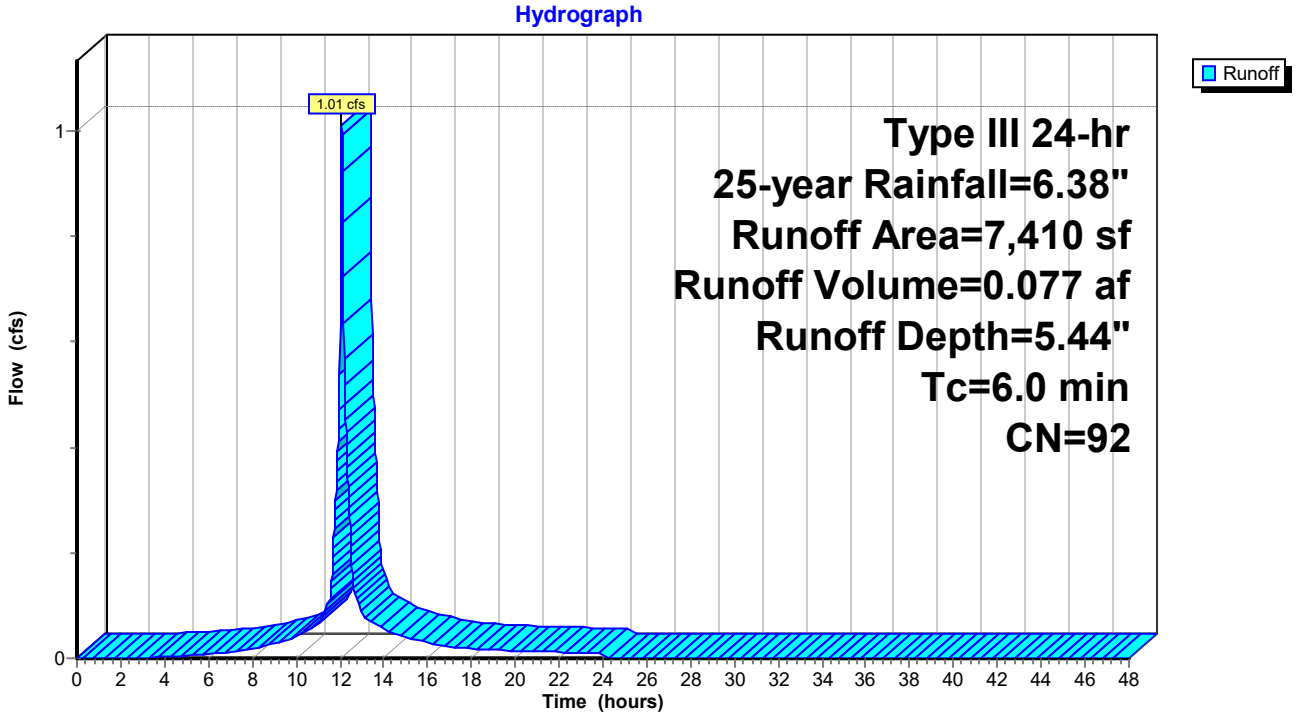
Runoff = 1.01 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 5.44"
Routed to Pond 10P : SW MANAGEMENT PRACTICE

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=6.38"

	Area (sf)	CN	Description
*	6,266	98	Impervious Surfaces, HSG B
	1,144	61	>75% Grass cover, Good, HSG B
	7,410	92	Weighted Average
	1,144		15.44% Pervious Area
	6,266		84.56% Impervious Area

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

Subcatchment 4S: FDA-1.1 TO SW PRACTICE



Summary for Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1

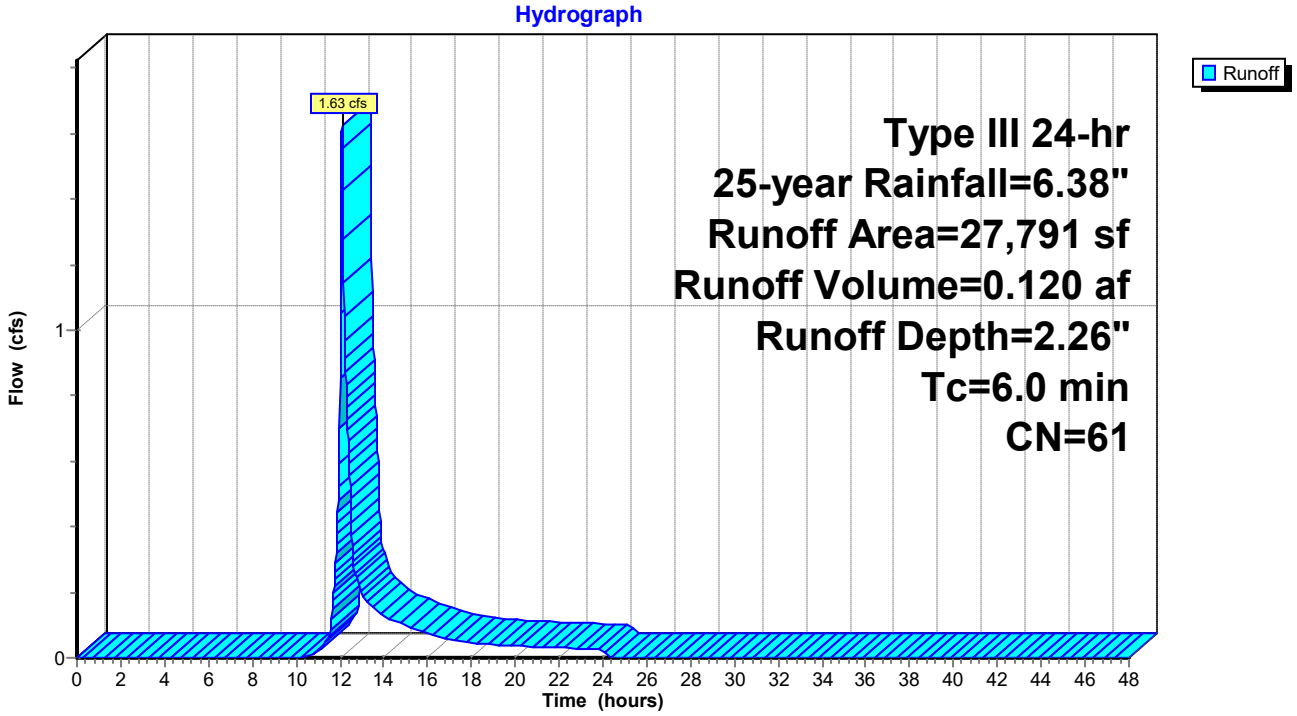
Runoff = 1.63 cfs @ 12.09 hrs, Volume= 0.120 af, Depth= 2.26"
Routed to Link 9L : DESIGN POINT 1

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=6.38"

Area (sf)	CN	Description
27,623	61	>75% Grass cover, Good, HSG B
168	98	Unconnected pavement, HSG B
27,791	61	Weighted Average
27,623		99.40% Pervious Area
168		0.60% Impervious Area
168		100.00% Unconnected

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

Subcatchment 5S: FDA.1.2 TO DESIGN POINT 1



Summary for Subcatchment 6S: FDA-2 TO DESIGN POINT 2

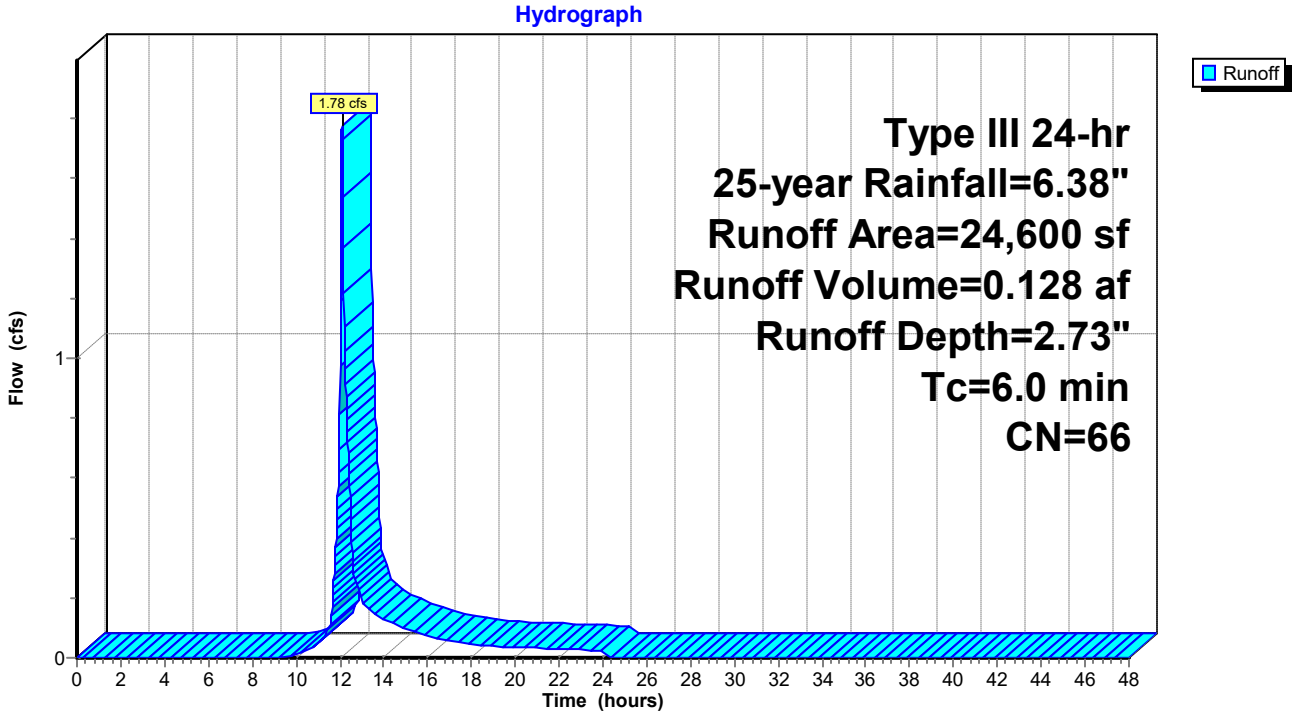
Runoff = 1.78 cfs @ 12.09 hrs, Volume= 0.128 af, Depth= 2.73"

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=6.38"

	Area (sf)	CN	Description
*	3,568	98	Impervious surfaces, HSG B
	4,500	55	Woods, Good, HSG B
	1,875	77	Woods, Good, HSG D
	14,657	61	>75% Grass cover, Good, HSG B
	24,600	66	Weighted Average
	21,032		85.50% Pervious Area
	3,568		14.50% Impervious Area

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

Subcatchment 6S: FDA-2 TO DESIGN POINT 2



Summary for Subcatchment 7S: FDA-3 TO DESIGN POINT 3

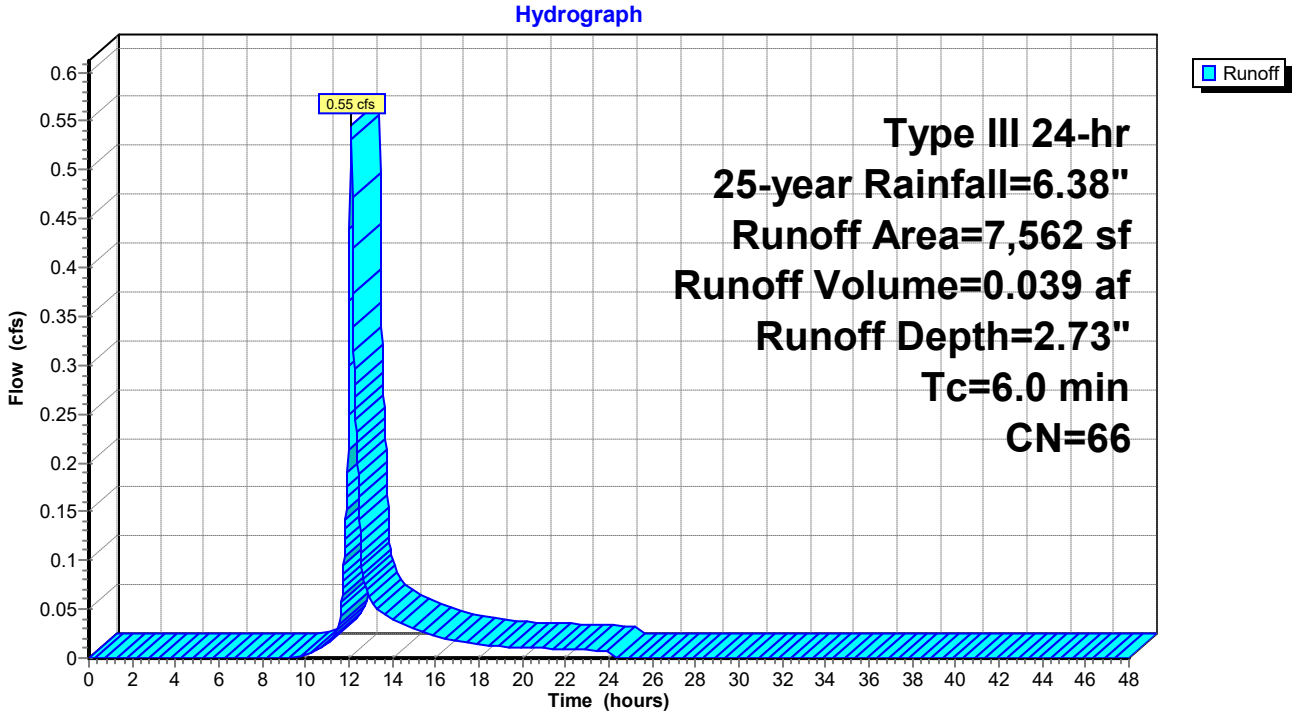
Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 2.73"

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=6.38"

	Area (sf)	CN	Description
*	292	98	Cottage/toolshed building, HSG B
*	203	98	Patio, HSG B
*	12	98	Impervious Fire Pit
	6,074	61	>75% Grass cover, Good, HSG B
	981	80	>75% Grass cover, Good, HSG D
	7,562	66	Weighted Average
	7,055		93.30% Pervious Area
	507		6.70% Impervious Area

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

Subcatchment 7S: FDA-3 TO DESIGN POINT 3



Summary for Pond 10P: SW MANAGEMENT PRACTICE

Inflow Area = 0.170 ac, 84.56% Impervious, Inflow Depth = 5.44" for 25-year event
Inflow = 1.01 cfs @ 12.08 hrs, Volume= 0.077 af
Outflow = 0.66 cfs @ 12.18 hrs, Volume= 0.077 af, Atten= 35%, Lag= 5.5 min
Discarded = 0.04 cfs @ 9.98 hrs, Volume= 0.049 af
Primary = 0.62 cfs @ 12.18 hrs, Volume= 0.028 af
Routed to Link 9L : DESIGN POINT 1

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Peak Elev= 479.18' @ 12.18 hrs Surf.Area= 867 sf Storage= 836 cf

Plug-Flow detention time= 77.7 min calculated for 0.077 af (100% of inflow)
Center-of-Mass det. time= 77.7 min (853.0 - 775.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	477.50'	538 cf	**21.67'W x 40.00'L x 2.04'H Field A** 1,769 cf Overall - 424 cf Embedded = 1,345 cf x 40.0% Voids
#2A	478.00'	424 cf	**Cultec C-100HD** x 30 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 6 rows
		962 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	478.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	477.50'	**2.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.04 cfs @ 9.98 hrs HW=477.52' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.62 cfs @ 12.18 hrs HW=479.18' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.62 cfs @ 3.14 fps)

Pond 10P: SW MANAGEMENT PRACTICE - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 6 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

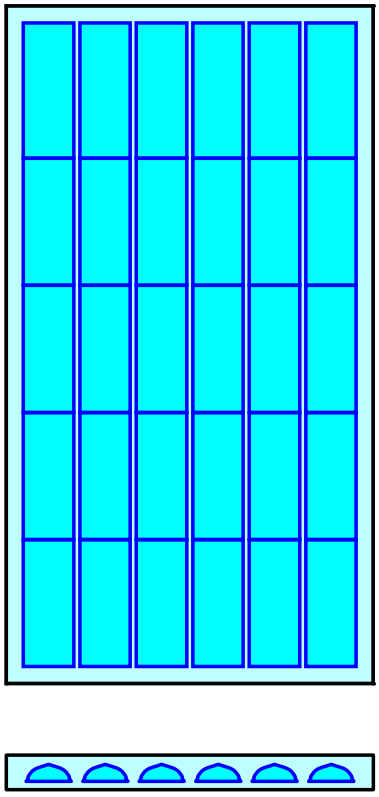
5 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 38.00' Row Length +12.0" End Stone x 2 = 40.00' Base Length
6 Rows x 36.0" Wide + 4.0" Spacing x 5 + 12.0" Side Stone x 2 = 21.67' Base Width
6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

30 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 6 Rows = 424.4 cf Chamber Storage

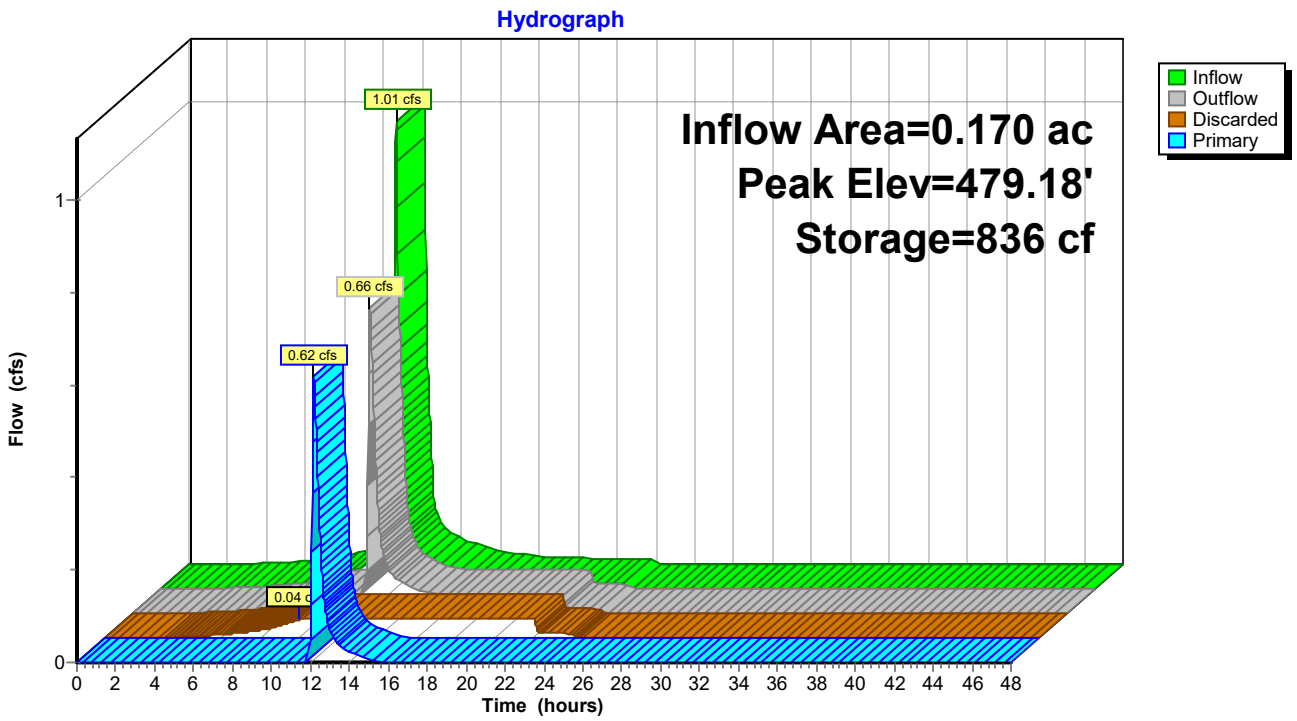
1,769.4 cf Field - 424.4 cf Chambers = 1,345.0 cf Stone x 40.0% Voids = 538.0 cf Stone Storage

Chamber Storage + Stone Storage = 962.4 cf = 0.022 af
Overall Storage Efficiency = 54.4%
Overall System Size = 40.00' x 21.67' x 2.04'

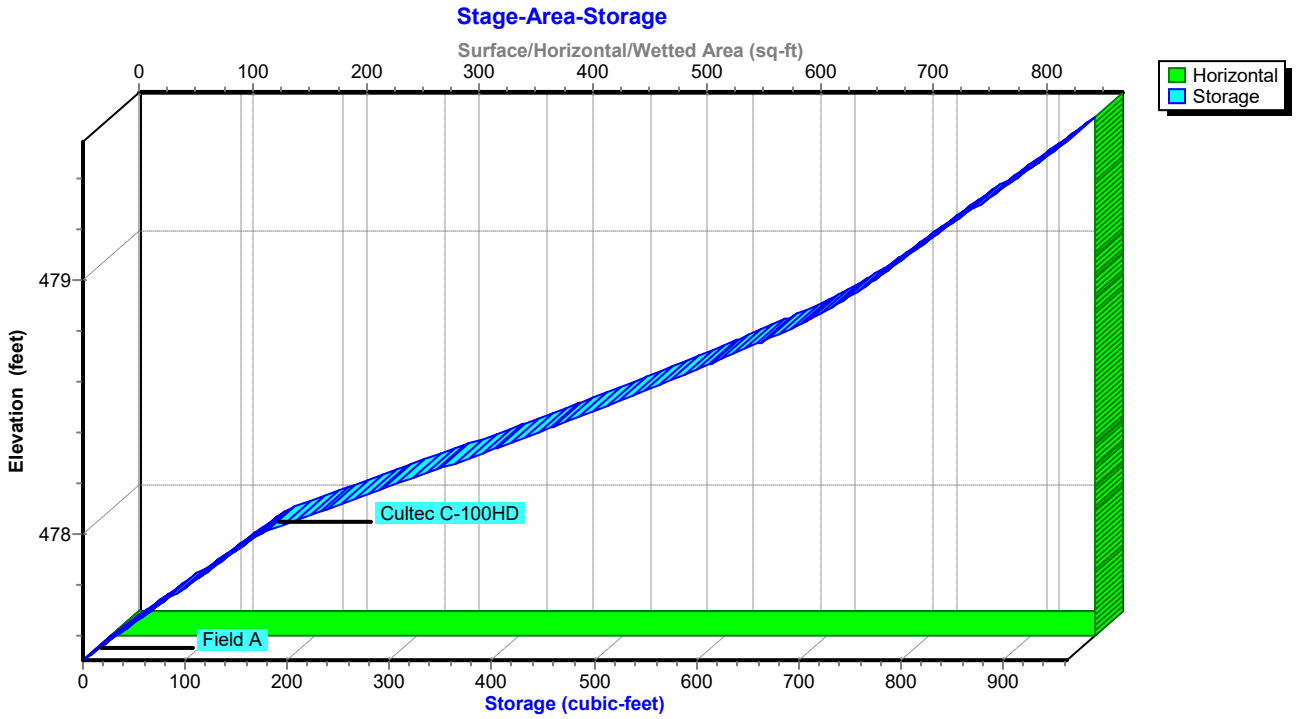
30 Chambers
65.5 cy Field
49.8 cy Stone



Pond 10P: SW MANAGEMENT PRACTICE



Pond 10P: SW MANAGEMENT PRACTICE

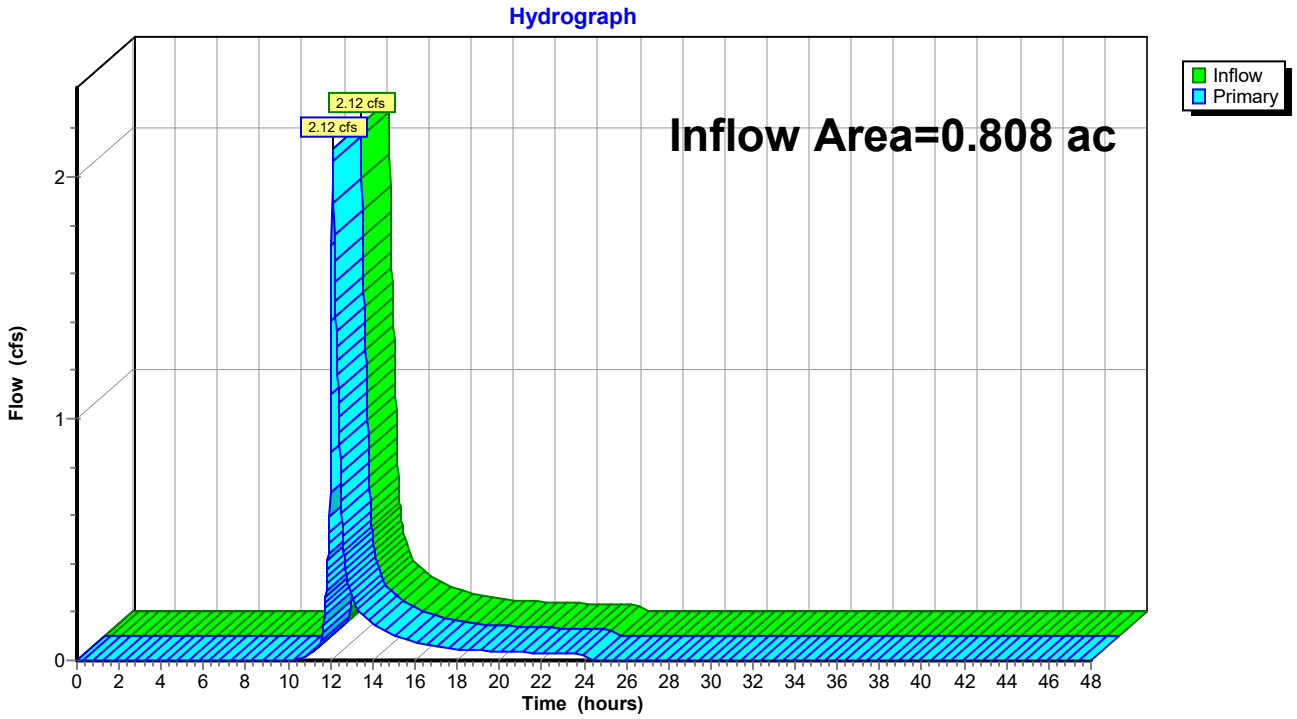


Summary for Link 9L: DESIGN POINT 1

Inflow Area = 0.808 ac, 18.28% Impervious, Inflow Depth = 2.20" for 25-year event
Inflow = 2.12 cfs @ 12.11 hrs, Volume= 0.148 af
Primary = 2.12 cfs @ 12.11 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 9L: DESIGN POINT 1



TOWN BOARD OF THE TOWN OF LEWISBORO
COUNTY OF WESTCHESTER: STATE OF NEW YORK
----------X
In the Matter of the Application of

ANACAPRI, LLC

PETITION FOR ZONING MAP AMENDMENT

For amendments to the Zoning Map of the Town of Lewisboro changing the Zoning Designation of a Portion of Property Zoned R-1/2A to RB affecting real property located at 19 Mark Mead Road, also known and designated on the Tax Assessment Map of the Town of Lewisboro as Sheet 20, Block 10800, Lot 1.

----------X

ANACAPRI, LLC (the "Petitioner") hereby petitions the Town Board of the Town of Lewisboro for an amendment to the Zoning Map pursuant to New York State Town Law Sections 264 and 265 as follows:

The Petitioner & Its Parcels

1. Petitioner is the operator of a restaurant in the Town of Lewisboro known as Bacio Trattoria, which is located at 12 North Salem Road, Cross River, New York 10518. The northerly portion of Petitioner's 1.939 acre restaurant property is zoned Retail Business (RB). Petitioner is unable to provide additional on-site parking for its patrons because (1) the southerly portion of the restaurant property is zoned Residential-One Half Acre (R-1/2A) and (2) the septic system is located in this southerly portion of the restaurant property.

2. Petitioner has entered into a Contract to purchase a 1.70± acre parcel located across North Salem Road from the restaurant property. Said property is known as 19 Mark Mead Road and is improved by a two-family residence and a detached garage. It is

identified on the Tax Map of the Town of Lewisboro as Sheet 20, Block 10800, Lot 1. It is currently zoned R-1/2A. A complete metes and bounds description of this parcel is contained in the Schedule A legal description annexed hereto. Said property now under contract by Petitioner is hereinafter referred to as the "Parcel".

The Proposed Rezoning of the Parcel

3. Petitioner respectfully requests the Town Board to rezone the northerly 75± feet of the Parcel from R-1/2A to RB (from the existing driveway to the northerly boundary line of the Parcel). Such rezoning is sought to enable Petitioner to utilize said northerly portion of the Parcel for parking in conjunction with its restaurant located immediately across North Salem Road to the west. The amended zoning district line separating the proposed new RB zoned northerly portion from the southerly R-1/2A zone would be consistent with the zoning district line that presently dissects the restaurant property located across North Salem Road.

4. Petitioner further proposes that said northerly portion of the Property, if rezoned to RB, would be used only for parking and no other commercial uses that are otherwise allowed in an RB district would be permitted anywhere on the Parcel. Hence by rezoning only the northerly 75± feet of the Property from R-1/2A to RB and restricting use of such RB zoned portion of the parcel to parking only, Petitioner will be permitted to use such rezoned area for parking without adversely impacting the residences along Mark Mead Road in the adjoining R-1/2A District. RB uses on the Parcel will be limited to parking only.

5. If rezoned, Site Development Plan review by the Planning Board will be required before the northerly portion of the Property can be utilized by Petitioner for

parking. Site plan approval would include requirements or conditions for appropriate screening (fencing and/or landscaping), parking layout, lighting, storm water controls and hours of use, etc. The parking area will be accessed from North Salem Road, not Mark Mead Road. Petitioner proposes to utilize the existing curb cut and driveway (which are directly across from the parking lot exit of the restaurant property) for ingress to and egress from the new parking area. Restaurant parking will be restricted to the area between existing driveway and northerly property line. A crosswalk and signage will be designed and implemented if the Planning Board finds same necessary to ensure safe pedestrian crossings over North Salem Road by restaurant patrons and staff.

6. Petitioner respectfully submits that the proposed rezoning of the northerly 75± feet of the Property for parking is appropriate for this transitional area where the RB and R-1/2A districts meet. The proposed rezoning will have little or no impact on the Mark Mead Road residences to the south and east. Petitioner's rezoning request, if granted, will enhance its customer's dining experience while also improving safety without undue disturbance to Petitioner's neighbors on Mark Mead Road.

WHEREFORE, the Petitioner respectfully requests that the Town Board grant this Petition and amend the zoning map to re-designate the northerly 75± feet of tax lot 1 from R-1/2A to RB with RB permitted uses being limited to parking only.

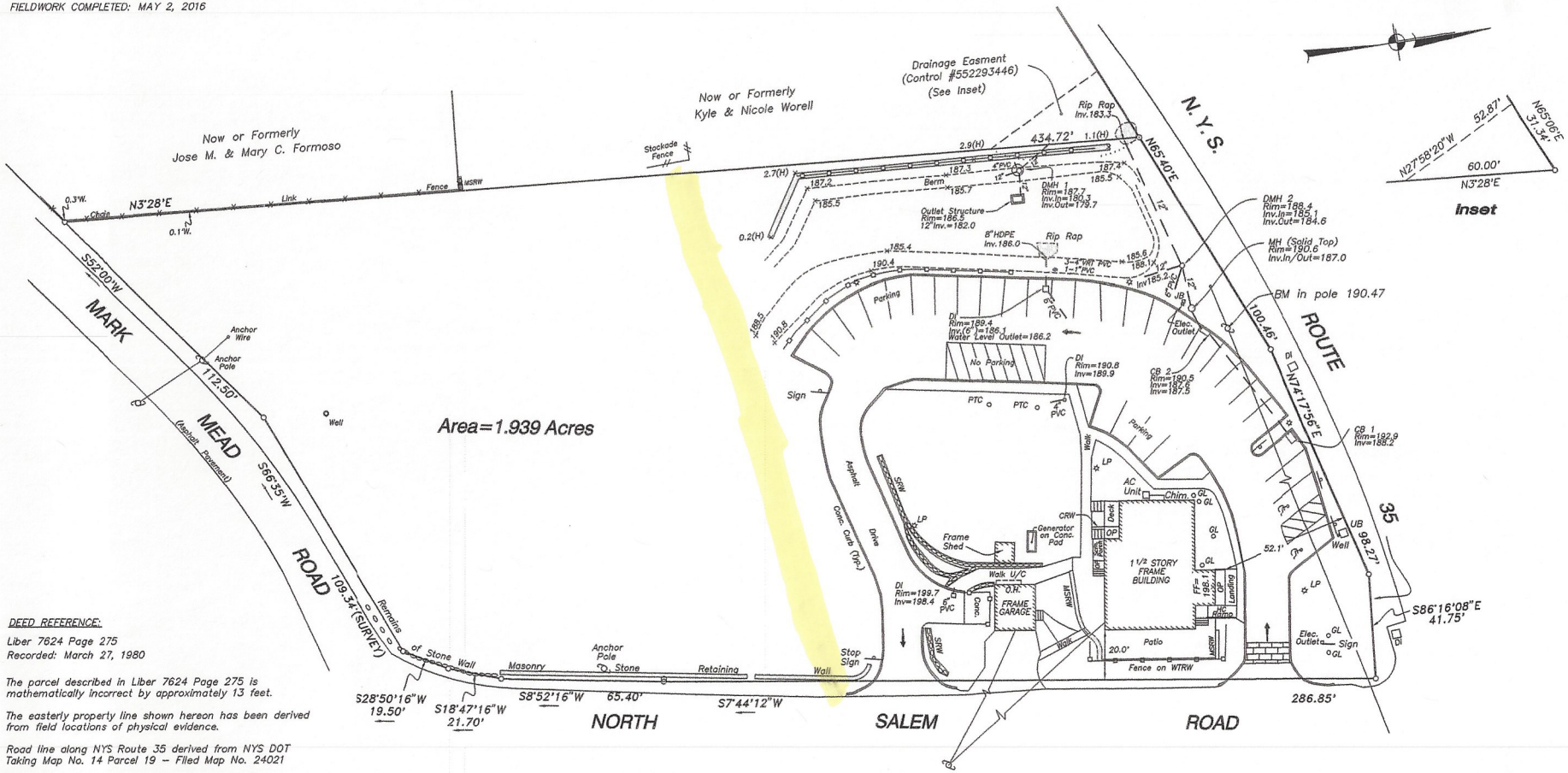
Respectfully submitted,

ANACAPRI, LLC

By: Antonio Coppola Manager

Dated: April 25, 2022

FIELDWORK COMPLETED: MAY 2, 2016



DEED REFERENCE:

Liber 7624 Page 275
Recorded: March 27, 1980

The parcel described in Liber 7624 Page 275 is mathematically incorrect by approximately 13 feet.

The easterly property line shown hereon has been derived from field locations of physical evidence.

Road line along NYS Route 35 derived from NYS DOT Taking Map No. 14 Parcel 19 – Filed Map No. 24021

This property was originally surveyed on September 12, 2005 by Bunney Associates Land Surveyors and has been updated by Insite Engineering, Surveying & Landscape Architecture, P.C., owner of the records of Bunney Associates.

Underground structures, if any exist, not shown hereon, except as noted. The location of underground improvements or encroachments are not always known and often must be estimated. If any, underground improvements or encroachments are not covered by this certificate.

Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom this survey was prepared and on his behalf to the title company, governmental agency and/or lending institution listed hereon, and to the assignees of the lending institution.

Only copies from the original of this survey marked with the surveyor's embossed seal are genuine, true and correct copies of the surveyor's original work and opinion. A copy of this document without a proper application of the surveyor's embossed seal should be assumed to be an unauthorized copy.

STATE OF NEW YORK
JEFFREY DEROSA
50749
LICENSED LAND SURVEYOR

JEFFREY B. DeROSA, L.S.
New York State License No. 050749

This survey is subject to a current, up to date Title Report. To date, no Title Report or Abstract of Title has been provided.

Property corner monuments were not placed as part of this survey.

This map may not be used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance for any subsequent or future grantees.

Unauthorized alteration or addition to this survey is a violation of Section 7209, subdivision 2 of the New York State Education Law.

According to NYSAPLS policy adopted January 23, 1993, the alteration of survey maps by anyone other than the original preparer is misleading, confusing and not in the general welfare and benefit of the public. Licensed Land Surveyors shall not alter survey maps, survey plans, or survey plats prepared by others.

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place • Carmel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

Legend

SRW	Stone Retaining Wall
CRW	Concrete Retaining Wall
MSRW	Masonry Stone Retaining Wall
PTC	Propane Tank Cover
JB	Junction Box
LP	Light Post
UB	Utility Box
E	Electrical Outlet
GL	Ground Lighting
	Sign
	Fence
2.9(H)	Height of wall

All Pipes are HDPE unless otherwise noted.

As Built Survey

Prepared for

K & K Real Estate, Inc.

Situate in the

Town of Lewisboro

Westchester County, New York

Scale 1" = 30' Date: May 10, 2016

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

15329.200 T585-5 P5-8
K&K Bacio Survey.dwg

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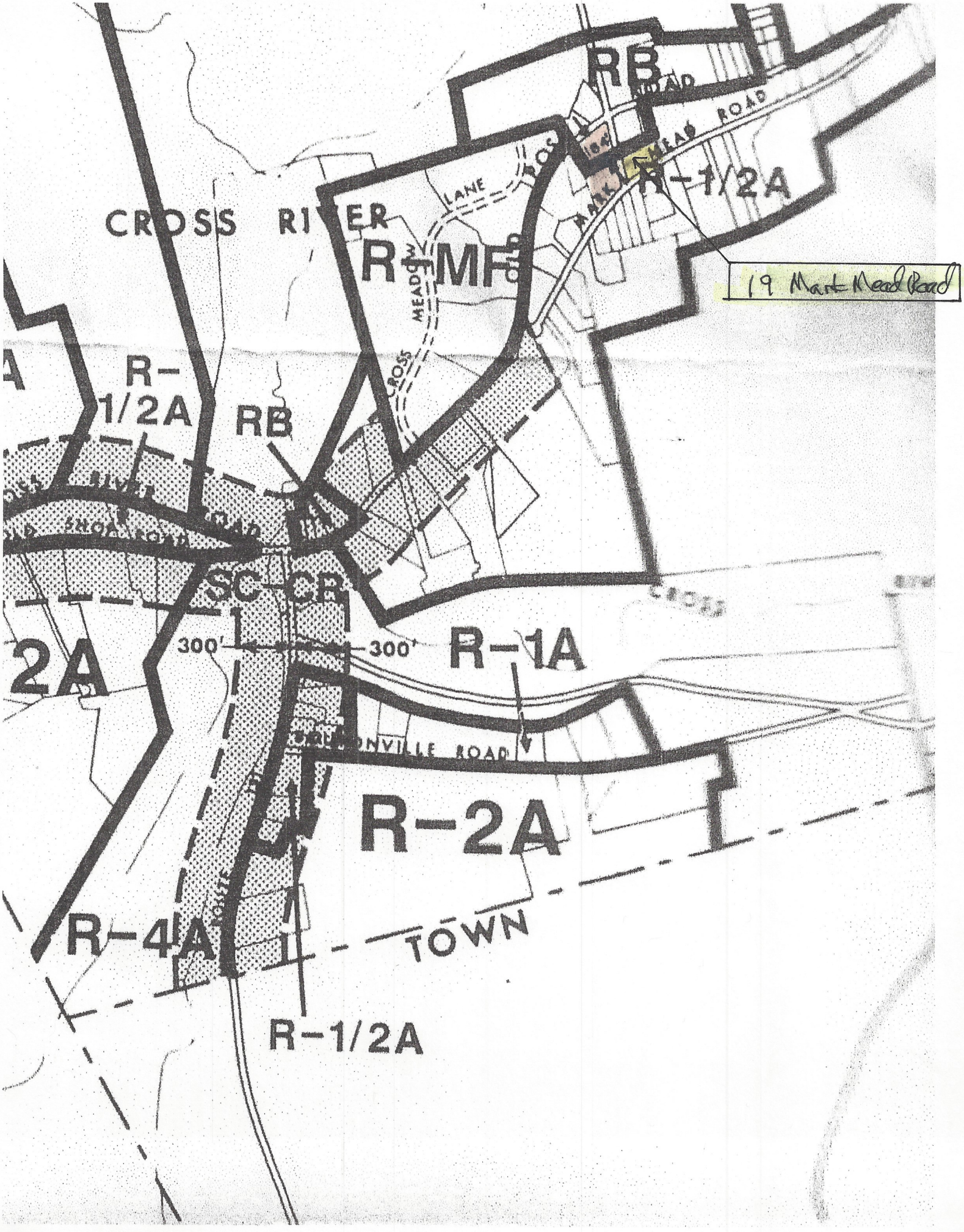
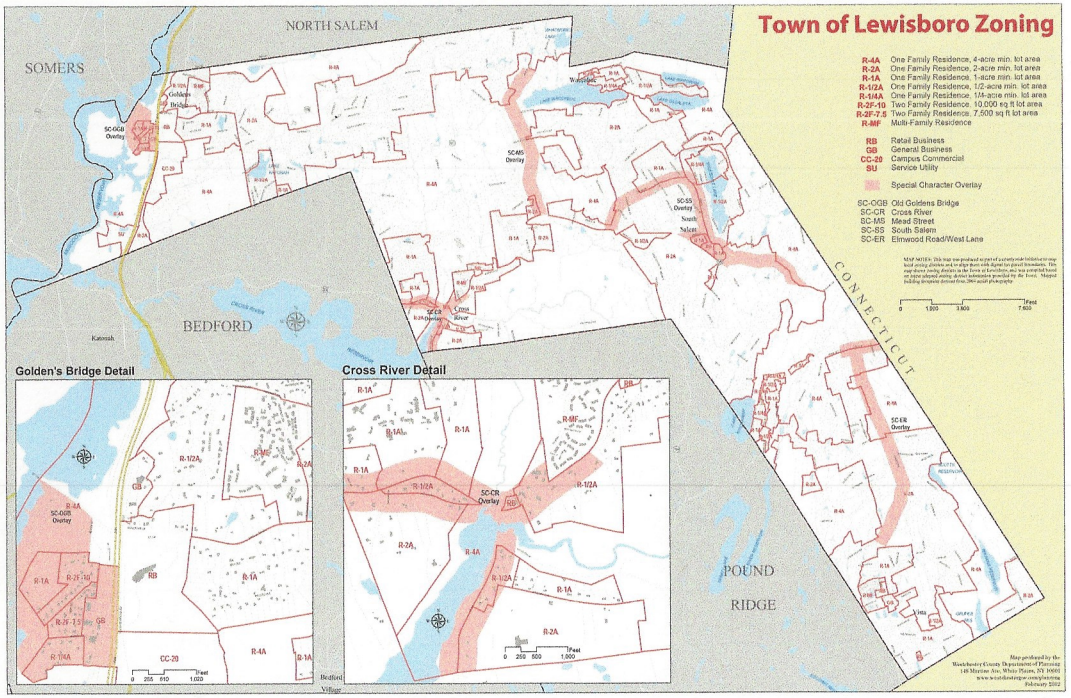
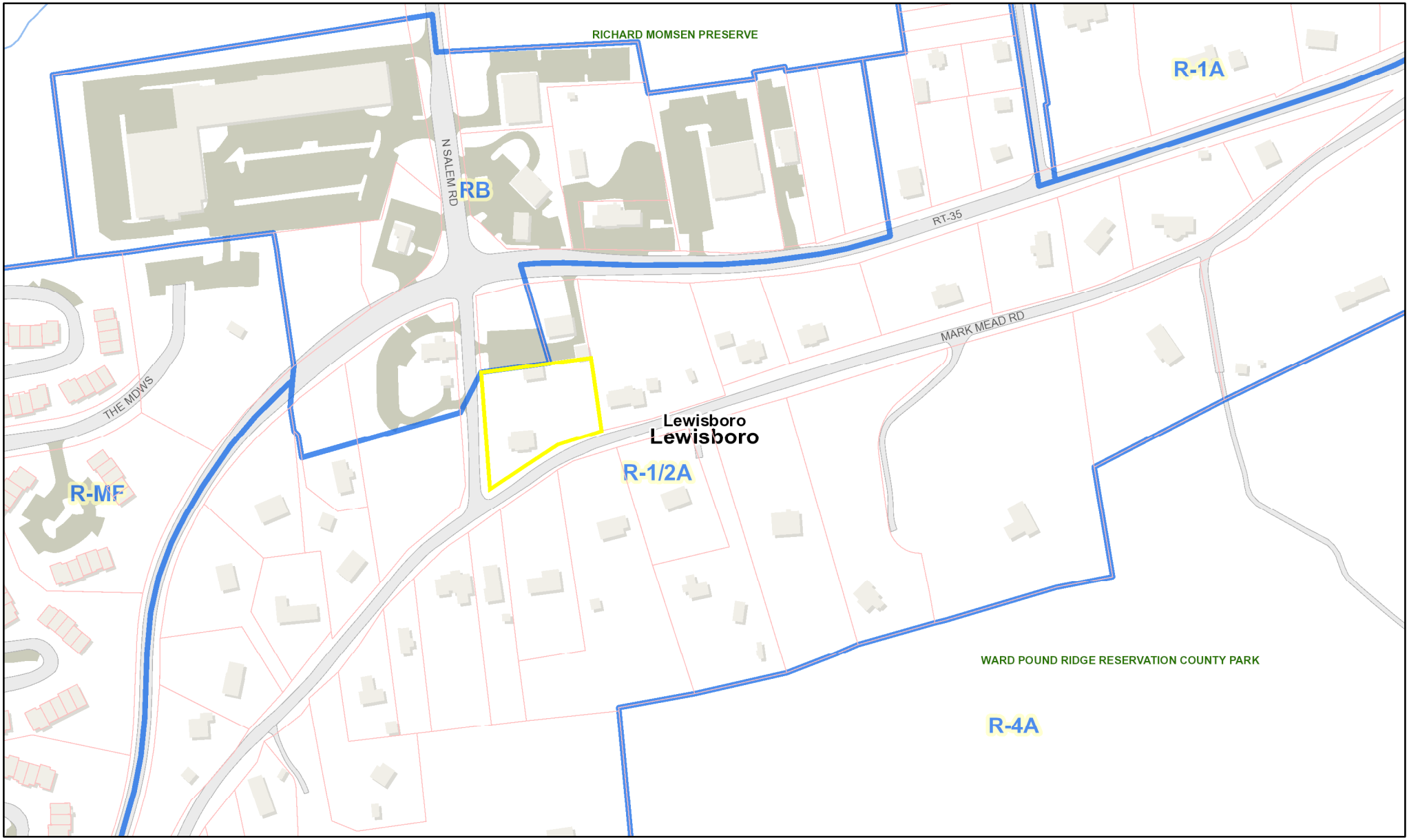

RB
ROAD
ROAD
LANE
CROSS
R-1/2A
CROSS RIVER
RMF
MEADOW
19 Mark Mead Road
R-
1/2A
RB
SC-CR
300'
300'
R-1A
R-2A
R-4A
TOWN
R-1/2A

220 Attachment 4

Town of Lewisboro



19 MARK MEAD RD. ID: 42.18-1-6 (Lewisboro)



April 28, 2022

1:3,000

0 145 290 580 ft

N

Tax parcel data was provided by local municipality. This map is generated as a public service to Westchester County residents for general information and planning purposes only, and should not be relied upon as a sole informational source. The County of Westchester hereby disclaims any liability from the use of this GIS mapping system by any person or entity. Tax parcel boundaries represent approximate property line location and should NOT be interpreted as or used in lieu of a survey or property boundary description. Property descriptions must be obtained from surveys or deeds. For more information please contact local municipality assessor's office.

Westchester County GIS

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

AGENDA PACKET

Part 4 of 4

MAY 17, 2022 MEETING

	CAL#	PAGE
AGENDA		**2**
HARDART GARAGE, 12 GILBERT STREET, SOUTH SALEM	**Cal #11-22WP**	
Kellard Sessions memo, dated May 13, 2022		**4**
CAC memo, dated May 10, 2022		**7**
Wetland permit application, dated March 24, 2022		**8**
Architectural drawings, Paul Dennis, AIA; dated August 2, 2021		**11**
RINI/LANGEL RESIDENCE,15 BENEDICT ROAD, SOUTH SALEM	**Cal #15-22WP**	**Cal #07-22SW**
Kellard Sessions memo, dated May 13, 2022		**16**
CAC memo, dated May 10, 2022		**20**
Cover letter plus Wetland and Stormwater permit applications, dated April 9, 2022		**21**
Site plans, ALP Engineering, dated April 11, 2022		**29**
Stormwater Report, ALP Engineering, dated April 11, 2022		**35**
MAPLE TREE FARM, 400 SMITH RIDGE ROAD, SOUTH SALEM	**Cal #01-21WV**	
No new materials.		**-**
REFERRAL FROM LEWISBORO TOWN BOARD – Rezoning petition for 19 Mark Mead Road, Cross River		
Petition for Zoning Map Amendment, Antonio Coppola, dated April 25, 2022		**100**
Supervisor cover letter, dated April 28, 2022		**107**
Town Board Resolution, dated April 25, 2022		**108**

TOWN OF LEWISBORO
OFFICE OF THE SUPERVISOR

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11 MAIN STREET
P.O. BOX 500
SOUTH SALEM, NEW YORK 10590

ANTONIO GONÇALVES, SUPERVISOR

April 28, 2022,

Via Email

Janet Anderson
Chair, Lewisboro Planning Board
79 Bouton Road
South Salem, NY 10590

Re: 19 Mark Mead Road – Rezoning request

Dear Chair Janet Andersen and Members of the Planning Board

I write to you on behalf of the Town Board with regards to the petition presented to the Town Board by Michael Sirignano, attorney for ANACAPRI, LLC (the "Petitioner"). The Petitioner requests the Town Board to rezone the northerly 75± feet portion of the property located at 19 Mark Mead Road zoned R-1/2A to RB. The property is designated on the Tax Assessment Map of the Town of Lewisboro as Sheet 2, Block 10800, Lot 1. The purpose of the request is to provide additional parking for the restaurant owned by the Petitioner and located across the street at 12 North Salem Road, Cross River NY.

At the April 25, 2022 Town Board meeting, the Town Board agreed to refer the Petitioner's request to the Planning Board for report and recommendation under 220-80 of the Lewisboro Town Code. Accompanying this letter is the petition and other supporting information as provided by Michael Sirignano.

The Town Board has scheduled a public hearing and vote on this matter for May 23, 2022. The Town Board would like to have the Planning Board's report and recommendation prior to the May 23rd date.

Respectfully Submitted

Tony Gonçalves
Supervisor, Town of Lewisboro

cc: Lewisboro Town Board Members
Gregory Folchetti, Town Attorney

RESOLUTION ADOPTED BY THE TOWN BOARD
OF THE TOWN OF LEWISBORO
AT A MEETING HELD ON APRIL 25, 2022

RESOLVED, that the Town Board of the Town of Lewisboro does defer the Bacio Trattoria's request for rezoning to the Planning Board and be it further

RESOLVED, that the Town Board will hold a public hearing for Bacio Trattoria's rezoning request on Monday, May 23, 2022 at the Town House, 11 Main Street, South Salem, NY.

STATE OF NEW YORK
COUNTY OF WESTCHESTER

I, JANET L. DONOHUE, Town Clerk of the Town of Lewisboro, County of Westchester, State of New York, do hereby certify that I have compared the preceding copy of a Resolution adopted by the Town Board of the Town Board of Lewisboro at a meeting held on the 25th day of April 2022, to the original thereof, and that the same is a true and exact copy of said original and of the whole thereof.

_____
Janet L. Donohue
Town Clerk

Dated at South Salem, New York
this 25th day of April 2022