

**Section I- PROJECT** 

ADDRESS:

### TOWN OF NORTH CASTLE

#### WESTCHESTER COUNTY 17 Bedford Road Armonk, New York 10504-1898

RESIDENTIAL PROJECT REVIEW COMMITTEE Adam R. Kaufman AICP, Chair

Section III- DESCRIPTION OF WORK:

Telephone: (914) 273-3000 x 43 Fax: (914) 273-3554

www.nortcastleny.com

#### RESIDENTIAL PROJECT REVIEW COMMITTEE (RPRC) APPLICATION

HOBBY FARM DRIVE

INSTAUL IN-GROUND CONCRETE POOL WITH

SPA, POTIO, WOLKS, WOLL, & STEPS, PAVILION

Section III. CONTACT INFORMATION.
Section III- CONTACT INFORMATION:
APPLICANT: SHORELINE POOLS INC. (JOHN DEFEO LA.)
ADDRESS: 393 WEST AVE, STAMFORD, CT 06902
PHONE: (203) 967-1203 MOBILE: EMAIL: JDEFEO @ SHOPZELINE PROCES. COP
PROPERTY OWNER: SILPE
ADDRESS: 5 HOBBY FARM DRIVE, BEDFORD, NY 10506
PHONE: MOBILE: 917 364 4948 EMAIL: ROBERT. SILPE @ GMAIL. COM
PROFESSIONAL: FRANGIONE ENGINEERING LLC (ROB FRANGIONE)
ADDRESS: 15 GNOWIGERRY LANE, NEW CANAAN, CT 06840
PHONE: (203) 554-9551 MOBILE:
EMAIL: ROB. FRANGIONE @ FRANGIONE - NET
Section IV- PROPERTY INFORMATION:
Zone: 12-2 A Tax ID (lot designation) SEC 1, BLOCK 5, LOT 15-24



### Town of North Castle Residential Project Review Committee

17 Bedford Road Armonk, New York 10504 (914) 273-3542 (914) 273-3554 (fax)

#### RPRC COMPLETENESS REVIEW FORM

This form represents the standard requirements for a completeness review for all Residential Project Review Committee submissions. Failure to provide all of the information requested will result in a determination that the application is incomplete.

Project Name on Plan: Naomi & Robert Silpe							
- CO	■Initial Submittal □Revised Preliminary						
Street	Location: 5 Hobby Farm Drive						
	g District: R-2A Property Acreage: +/-2.11 Tax Map Parcel ID: sec 1, BI 5, Lot 15-24						
Date:_	11/9/2020						
DEPA	RTMENTAL USE ONLY						
Date F	iled: Staff Name:						
Items	mary Plan Completeness Review Checklist marked with a are complete, items left blank are incomplete and must be eted, "NA" means not applicable.						
<u> </u>	Plan prepared by a registered architect or professional engineer						
<u></u> 2.	Aerial photo (Google Earth) showing the applicant's entire property and adjacent properties and streets						
<u></u> 3.	Map showing the applicant's entire property and adjacent properties and streets						
<b>1</b> .	A locator map at a convenient scale						
<b>□</b> 5.	The proposed location, use and design of all buildings and structures						
<b></b> 6.	Existing topography and proposed grade elevations						
7.	Location of drives						
<u></u> 3.	Location of all existing and proposed site improvements, including drains, culverts, retaining walls and fences						

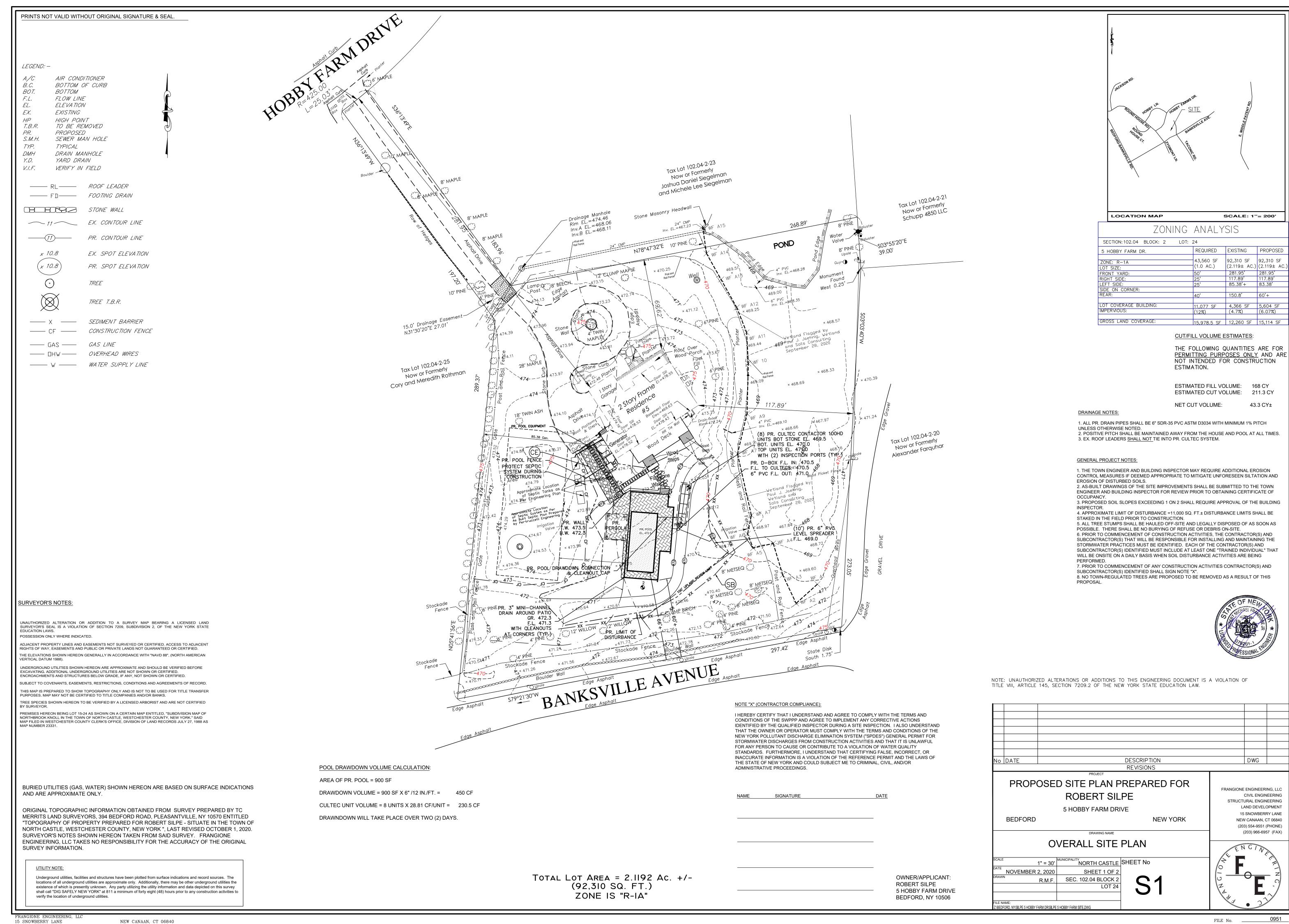
#### RPRC COMPLETENESS REVIEW FORM

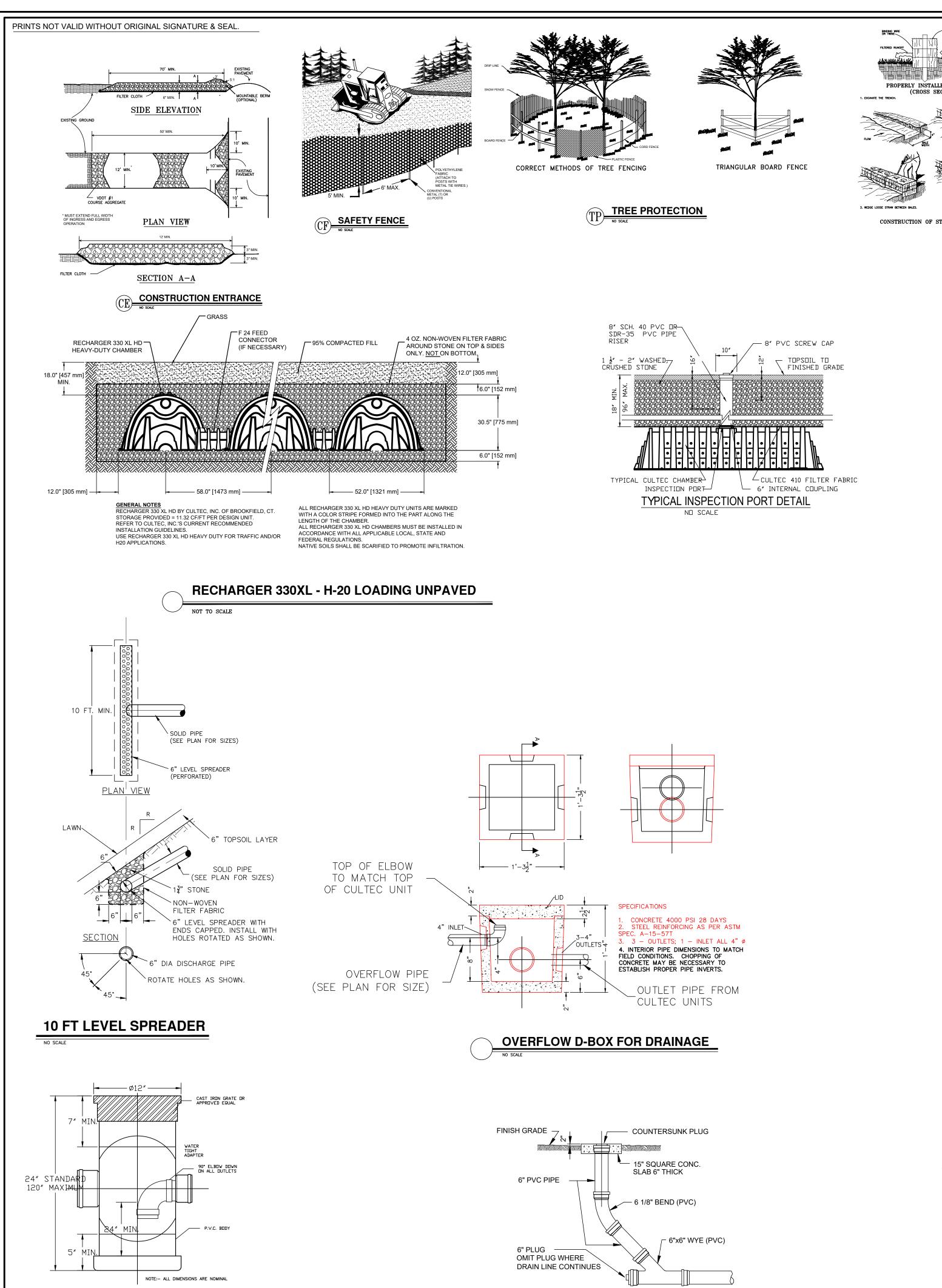
Page 2 Description of method of water supply and sewage disposal and location of such facilities 10. The name and address of the applicant, property owner(s) if other than the applicant and of the planner, engineer, architect, surveyor and/or other professionals engaged to work 1. Submission of a Zoning Conformance Table depicting the plan's compliance with the minimum requirements of the Zoning District 2. If a tree removal permit is being sought, submission of a plan depicting the location and graphical removal status of all Town-regulated trees within the proposed area of disturbance. In addition, the tree plan shall be accompanied by a tree inventory includes a unique ID number, the species, size, health condition and removal status of each tree. 3. If a wetlands permit is being sought, identification of the wetland and the 100-foot wetland buffer. More information about the items required herein can be obtained from the North Castle Planning Department. A copy of the Town Code can be obtained from Town Clerk or on the North Castle homepage: http://www.northcastleny.com/townhall.html On this date, all items necessary for a technical review of the proposed site plan

have been submitted and constitute a COMPLETE APPLICATION.

## 5 Hobby Farm Drive

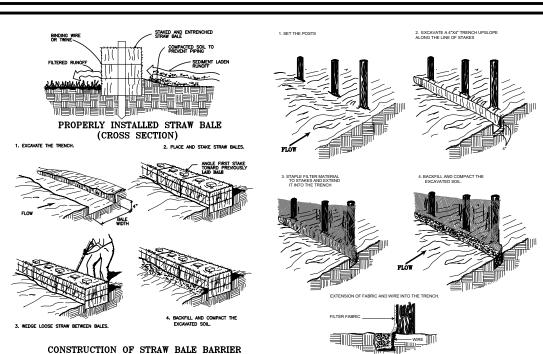




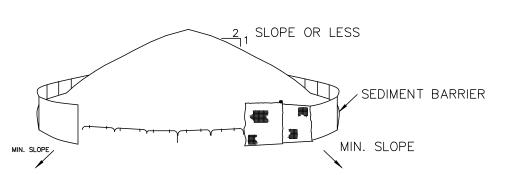


CLEANOUT

12" YARD DRAIN WITH OUTLET TRAP



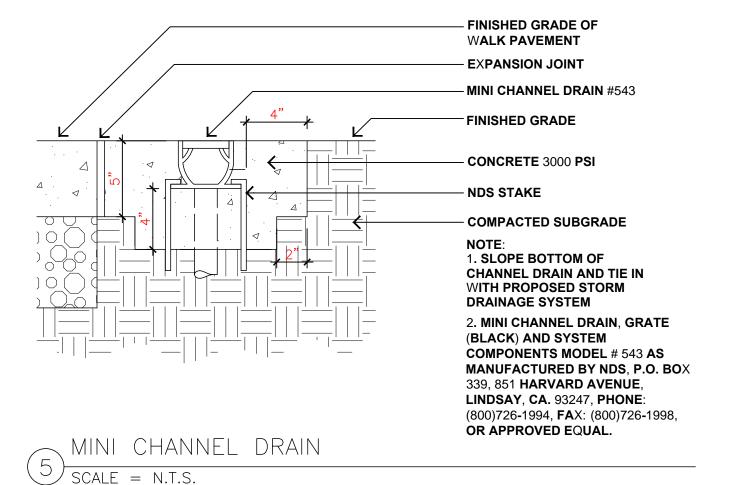
## SB SEDIMENT BARRIER



1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND

2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2. 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

## TEMPORARY STOCKPILE DETAIL



# MORTARED STONE PAVING POURED CONCRETE W/ #4 REBAR @12" O.C. BOTH WAYS - TO BE BONDED TO ELECTRICAL EARTH **\_GRAVEL BASE** —COMPACTED SUBGRADE

# **PATIO DETAIL**

#### GENERAL SEDIMENTATION AND EROSION CONTROL NOTES

1. A SEDIMENT BARRIER WILL BE ERECTED AROUND THE DOWNSLOPE PERIMETER OF ALL CONSTRUCTION ACTIVITIES. IN ADDITION TO THOSE SHOWN ON THE PLAN, ADDITIONAL CONTROLS WILL BE INSTALLED AS DEEMED NECESSARY BY THE GENERAL CONTRACTOR IN RESPONSE TO SITE CONDITIONS.

2. CUT AND/OR FILL SLOPES OF GREATER THAN 2 ON 1 REMAINING IN ROUGH GRADE WILL BE MULCHED AND SEEDED. 3. THE AMOUNT OF NATURAL VEGETATION REMOVED WILL BE MINIMIZED. ALL DISTURBED AREAS NOT SCHEDULED FOR CONSTRUCTION WITHIN 60 DAYS WILL BE MULCHED WITH UNROTTED STRAW OR HAY AND SEEDED. MULCH WILL BE

APPLIED AT 90 LBS. PER 1000 SQ. FT 4. ALL STOCKPILES LEFT FOR MORE THAN 1 MONTH WILL BE RINGED WITH SEDIMENT BARRIERS.

5. AT LEAST 50 FEET OF SILT FENCE AND/OR 50 FT. OF HAYBALES WILL BE STOCKPILED ON SITE FOR EMERGENCY USE. 6. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE PLACED IN AN APPROVED UPLAND SITE, A SUFFICIENT DISTANCE FROM ALL CONTROLLED ENVIRONMENTS.

7. UPON FINAL GRADING THE OPEN SOIL HORIZONS ARE TO BE IMMEDIATELY PLACED IN SEED. OPTIMUM SUCCESS IN ESTABLISHING PLANTS ON SLOPES IS ACHIEVED WHERE SLOPE ANGLES DO NOT EXCEED 3 HORIZONTAL TO ONE VERTICAL. THESE SOILS SHOULD NOT CONTAIN GREATER THAN 85% CLAY.

8. CONSTRUCTION ENVELOPES ARE TO BE DELINEATED WITH HIGH VISIBILITY BARRICADE TAPE, SNOW FENCE OR PLASTIC 9. TREES IN A CLOSE PROXIMITY TO CONSTRUCTION ACTIVITIES ARE TO BE PROTECTED WITH SNOW FENCE OR A

10. METHODS FOR PROPER DESIGN AND INSTALLATION OF CONTROL MEASURES MAY BE FOUND IN THE NEW YORK STATE GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL 11. UTILITY TRENCHES ARE TO BE COMPLETED, SEEDED AND MULCHED WITHIN 15 DAYS AFTER BACKFILL.

12. ANY DISTURBED AREA NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST IS TO BE SEEDED ON THAT DATE WITH OATS, ABRUZZI RYE, OR EQUIVALENT AND MULCHED WITH HAY OR STRAW. 13. DRAINAGE OUTLETS ARE TO BE PROTECTED WITH SPLASH GUARDS OR STONE AND/OR LEVEL SPREADERS.

14. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED (AND REPAIRED IF NECESSARY) EVERY TWO WEEKS AND/OR AFTER EVERY RAIN STORM OF 0.5" OR GREATER.

1. ALL SEDIMENTATION AND EROSION CONTROLS ARE TO BE INSTALLED PRIOR TO START OF DEMOLITION AND

2. MACHINERY ACCESS WILL BE VIA THE EXISTING DRIVEWAY.

3. ALL FILL & EXCAVATION WILL BE LIMITED TO PROPOSED ACTIVITIES. 4. PROPOSED ACTIVITIES ARE GENERALLY SITED WHERE CONCEPTUALLY APPROVED.

#### GENERAL CONSTRUCTION SEQUENCE

1. EMPLACEMENT OF THE SEDIMENTATION & EROSION CONTROLS - NOTE MULTIPLE ROWS OF SILT FENCE TO COORDINATE

WITH SEPARATE AREAS OF SITE DISTURBANCE; 2. DELINEATION OF THE CONSTRUCTION ENVELOPES WITH HIGH-VISIBILITY BARRICADE TAPE OR SNOW FENCE;

3. CLEARING WITHIN THE AREA FOR THE PROPOSED ACTIVITY; 4. TOPSOIL REMOVAL AND STOCKPILING IN STABILIZED AREA, STABILIZED WITH MULCH AND/OR RINGED WITH SEDIMENT

5. EXCAVATION FOR CULTEC UNITS;

6. CULTEC UNIT AND OVERFLOW STRUCTURE INSTALLATION;

COMPARABLE BARRIER PLACED AT THE DRIPLINE.

7. EXCAVATE FOR POOL AND RETAINING WALLS; 8. POOL, WALL AND PATIO CONSTRUCTION; 9. FINAL DRAINAGE CONNECTIONS;

10. FINAL GRADING & LANDSCAPING.

11. CONSTRUCTION PHASES WILL OCCUR SIMULTANEOUSLY AS LONG AS THE SITE IS STABLE AND EROSION CONTROLS ARE

#### POST-CONSTRUCTION MAINTENANCE PROCEDURES:

1. CLEAN DRIVEWAY SURFACE AND ROOF GUTTERS 2 X PER YEAR -SPRING & FALL - TO REMOVE SEDIMENT AND ORGANIC DEBRIS ON THE DRIVEWAY SURFACE VIA A BROOM AND TARPAULIN, AND FROM THE GUTTERS BY HAND.

2. INSPECT CATCH BASINS, YARD DRAINS, CULTEC INSPECTION PORTS, CLEANOUTS, AND OUTLETS 4 X PER YEAR TO ENSURE THAT THEY ARE NOT

## 3. REMOVE DEBRIS IF BLOCKED FROM ANY OF THE ABOVE-REFERENCED

Soil Data	DEEP TEST			10/19/2020
		Hole #	1	2
Soil Type			1	2
TOPSOIL			0-12"	0-8"
ORANGE BROWN SILTY LOAM			12"-36"	
DARK GRAY MOTTLED SANDY SILT			36"-43"	
MOTTLED GRAY HARDPAN			43"-60"	
GRAY MOTTLED SANDY SILT				8"-56"
MOTTLES/RESTRICTIVE			36"	8"
AGW			-	-
LEDGE			-	<b>E</b>
ROOTS			1277.)	15k
INFILTRATION RATE			1.25 in./hr.	
5 HOBBY FARM DRIVE				



NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS ENGINEERING DOCUMENT IS A VIOLATION OF TITLE VIII, ARTICLE 145, SECTION 7209.2 OF THE NEW YORK STATE EDUCATION LAW.

No	DATE	DESCRIPTION	DWG	
		REVISIONS	·	
		PROJECT		

## PROPOSED SITE PLAN PREPARED FOR ROBERT SILPE

5 HOBBY FARM DRIVE BEDFORD

BEDFORD, NY\SILPE 5 HOBBY FARM DR\SILPE 5 HOBBY FARM SITE.DWG

**NEW YORK** 

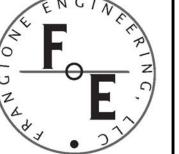
STRUCTURAL ENGINEERING LAND DEVELOPMENT 15 SNOWBERRY LANE NEW CANAAN, CT 06840 (203) 554-9551 (PHONE) (203) 966-6957 (FAX)

CIVIL ENGINEERING

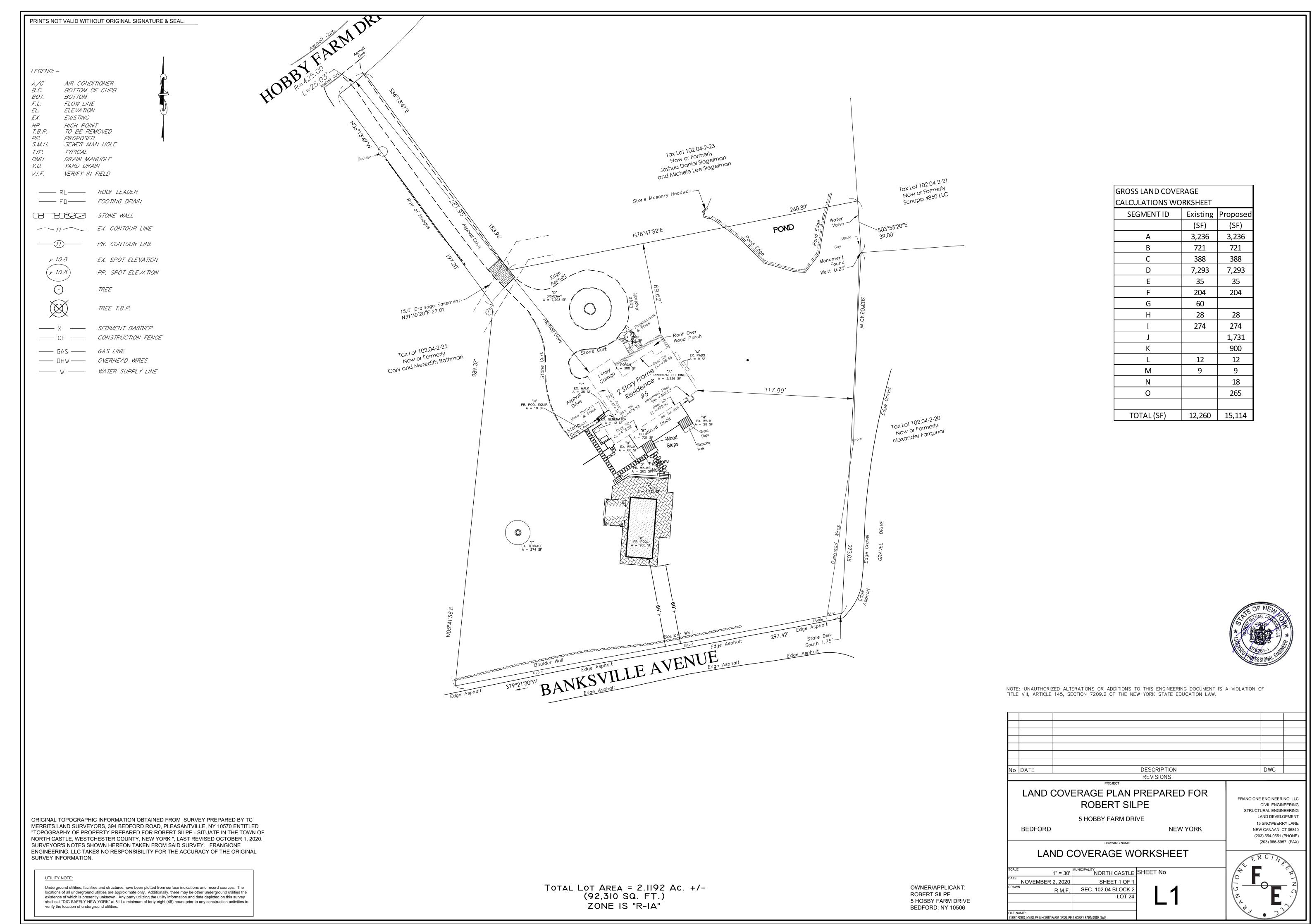
FRANGIONE ENGINEERING, LLC

**DETAILS & NOTES** 

NORTH CASTLE SHEET No NOVEMBER 2, 2020 R.M.F. | SEC. 102.04 BLOCK 2



SCALE: AS NOTED FILE No. NEW CANAAN, CT 06840 15 SNOWBERRY LANE





#### TOWN OF NORTH CASTLE

#### WESTCHESTER COUNTY 17 Bedford Road Armonk, New York 10504-1898

#### PLANNING DEPARTMENT Adam R. Kaufman, AICP Director of Planning

**Telephone:** (914) 273-3542 **Fax:** (914) 273-3554 **www.northcastleny.com** 

#### GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Applicat	tion Name or Identifying Title: Silpe	Date: 11/4/2020					
	Tax Map Designation or Proposed Lot No.: Sec. 102.04, Block 2, Lot 24						
	ot Coverage						
		92,310 SF					
1.	Total lot Area (Net Lot Area for Lots Created After 12/13/06):	The state of the s					
2.	<b>Maximum</b> permitted gross land coverage (per Section 355-26.C(1)(b)):	13,659 SF					
3.	<b>BONUS</b> maximum gross land cover (per Section 355-26.C(1)(b)):						
	Distance principal home is beyond minimum front yard setback $x = 10 = 231.95$ $x = 10 = 231.95$	2,319.5 SF					
4.	<b>TOTAL Maximum Permitted gross land coverage</b> = Sum of lines 2 and 3	15,978.5 SF					
5.	Amount of lot area covered by <b>principal building:</b> 3,236 proposed =	3,236 SF					
6.	Amount of lot area covered by <b>accessory buildings:</b> o existing + o proposed =	0					
7.	Amount of lot area covered by <b>decks</b> :  721 existing $+ 0$ proposed =	721 SF					
8.	Amount of lot area covered by <b>porches:</b> 388 SF existing + _0 proposed =	388 SF					
9.	Amount of lot area covered by <b>driveway</b> , <b>parking areas and walkways:</b> 7,620 existing + 205 SF proposed =	7,825 SF					
10.	Amount of lot area covered by <b>terraces</b> :  274 existing + 1731 proposed =	2,005 SF					
11.	Amount of lot area covered by <b>tennis court, pool and mechanical equip:</b> 21 existing + proposed =	939 SF					
12.	Amount of lot area covered by <b>all other structures:</b> o existing + o proposed =	0 SF					
13. Prop	gross land coverage: Total of Lines $5-12=$	15,114 SF					
the projection does not	13 is less than or equal to Line 4, your proposal complies with the Town's maximum ect may proceed to the Residential Project Review Committee for review. If Line 13 to comply with the Town's regulations.  11/5/2020  Date	gross land coverage regulations and is greater than Line 4 your proposa					

### Short Environmental Assessment Form Part 1 - Project Information

#### **Instructions for Completing**

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information					
Name of Action or Project:	-				
Silpe					
Project Location (describe, and attach a location map):	Y				
5 Hobby Farm Drive, Bedford, NY 10506					
Brief Description of Proposed Action:					
Proposed pool, patio, pergola, and stormwater detention system with associated grading					
		e e			
Name of Applicant or Sponsor:	Telephone: 917-364-494	8			
Robert Silpe	E-Mail: robert.silpe@gma	ail.com			
Address:					
5 Hobby Farm Drive	5				
City/PO:	State:	Zip Code:			
Bedford	NY	10506			
<ol> <li>Does the proposed action only involve the legislative adoption of a plan, log administrative rule, or regulation?</li> </ol>	cal law, ordinance,	NO YES			
If Yes, attach a narrative description of the intent of the proposed action and the	environmental resources th	nat 🗸 🗆			
may be affected in the municipality and proceed to Part 2. If no, continue to que					
2. Does the proposed action require a permit, approval or funding from any of If Yes, list agency(s) name and permit or approval: Residential Project Review Com	ner government Agency?	NO YES			
11 165, list agency (s) hame and permit of approval. Residential Project Review Com	militee, Conservation Board				
3. a. Total acreage of the site of the proposed action?	2.1192 acres				
<ul><li>b. Total acreage to be physically disturbed?</li><li>c. Total acreage (project site and any contiguous properties) owned</li></ul>	0.25 acres				
or controlled by the applicant or project sponsor?	2.1192 acres	e			
4. Check all land uses that occur on, are adjoining or near the proposed action:					
5. Urban Rural (non-agriculture) Industrial Commercial Residential (suburban)					
Forest Agriculture Aquatic Other(Sp					
Parkland	<i>-</i>				
Land & WARRING					

		·	
5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?		<b>V</b>	
b. Consistent with the adopted comprehensive plan?		<b>V</b>	
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	,	NO	YES
T T			<b>V</b>
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		NO	YES
If Yes, identify:		<b>V</b>	
		NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?		NO	IES
b. Are public transportation services available at or near the site of the proposed action?		<b>V</b>	H
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?		V	
9. Does the proposed action meet or exceed the state energy code requirements?		NO	YES
If the proposed action will exceed requirements, describe design features and technologies:			
10. Will the proposed action connect to an existing public/private water supply?		NO	YES
If No, describe method for providing potable water:			
if No, describe method for providing potable water.			<b>V</b>
11. Will the proposed action connect to existing wastewater utilities?		NO	YES
If No, describe method for providing wastewater treatment:			
		Ш	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district	 ot	NO	YES
which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the		<b>V</b>	П
State Register of Historic Places?	,		
		1	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?			
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?		NO	YES
			<b>V</b>
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?		<b>V</b>	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres:			

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:		
Shoreline Forest Agricultural/grasslands Early mid-successional		
☐ Wetland ☐ Urban ☑ Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO V	YES
16. Is the project site located in the 100-year flood plan?	NO	YES
101 10 the preject one results and results plant.		TES
	$\checkmark$	Ш
17. Will the proposed action create storm water discharge, either from point or non-point sources?	NO	YES
If Yes,		1
a. Will storm water discharges flow to adjacent properties?		<b>V</b>
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	1	
If Yes, briefly describe:		
18. Does the proposed action include construction or other activities that would result in the impoundment of water	NO	YES
or other liquids (e.g., retention pond, waste lagoon, dam)?	NO	IES
If Yes, explain the purpose and size of the impoundment:		
Eight (8) proposed Cultec Contactor units will detain 230.5 CF of storm water stormwater runoff on-site		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste	NO	YES
management facility?	1,0	120
If Yes, describe:		
		ш
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or	NO	YES
completed) for hazardous waste?	NO	IES
If Yes, describe:		
		Ш
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BE MY KNOWLEDGE	ST OF	
Applicant/sponsor/name: Frangione Engineering, LLC - Rob Frangione, P.E. Date: November 5, 20	)20	renewa standard de la companya de la
Signature:Title: Owner & Chief Engineer		



**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to confact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



No
No
No
Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
No
No
No



Frangione Engineering, LLC 15 Snowberry Lane New Canaan, CT 06840 Phone: 203.554.9551

Fax: 203.966.6957 Web: www.frangione.net

## Drainage Summary Report Property of Robert Silpe – 5 Hobby Farm Drive, Bedford, NY

The owners propose constructing a pool and patio on their property on Hobby Farm Drive. The site presently consists of a residence, patios, walkways and driveway. The proposed improvements to the 2.1192-acre site site will create approximately 2,800 SF of new impervious area. This report will show that the runoff from the pool patio can be routed through underground storage structures and will not have an adverse impact on downslope properties or drainage facilities.

Presently runoff from the site flows generally from west to northeast across the property towards and on-site wetland and pond. Runoff from the existing house, driveway and all other impervious surfaces flows unabated across the site and towards the wetlands. The proposed construction will not alter the existing drainage paths onto or off of this site.

Our office has analyzed the runoff rates generated by the 1-, 2-, 5-, 10- and 25-Year, 24-Hour Storm for the site. The property has been identified as "Site" in the enclosed existing conditions analysis. Under proposed conditions, the proposed pool and patio area has been included in the "Pool and Patio" sub-catchment, while the remainder of the site has been included in the "Site" sub-catchment. Using the Soil Conservation Service TR-20 Method, the runoff rates were calculated for the pre- and post-development conditions from the site including the new proposals. Table I below summarizes the existing and proposed runoff rates for the design storms.

Table I – Summary of Runoff Rates from Site

Storm Event	Flow	Existing	Proposed	Δ	Δ(%)
1-Year	q (cfs)	2.49	2.42	-0.07	-2.81%
2-Year	q (cfs)	3.23	3.17	-0.06	-1.86%
5-Year	q (cfs)	4.60	4.59	-0.01	-0.22%
10-Year	q (cfs)	5.84	5.82	-0.02	-0.34%
25-Year	q (cfs)	7.87	7.83	-0.04	-0.51%

The runoff rates for the storms depicted in Table I are the result of detaining runoff from the pool and patio in eight (8) Cultec Contactor 100HD units with a storage volume of 230.5 CF. Once the Cultec units fill up they will overflow via a level spreader in the side yard. Soil testing performed on the site shows that the Cultec units will be set in the better-draining soils compared to the rest of the parcel. The remainder of the site

will continue to allow runoff to flow along existing drainage paths. Please refer to the enclosed calculations for further information.

With these drainage structures in place, it is our professional opinion that there will be no adverse hydrological or hydraulic impacts caused to surrounding or downstream properties or drainage facilities by this development. Under the New York State Department of Environmental Conservation (NYSDEC) regulations, a Notice of Intent (NOI) is not required for this project because the amount of on-site disturbance is less than one (1) acre. To the best of my knowledge, this drainage proposal complies with the NYSDEC Stormwater Regulations.

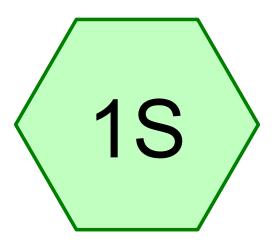


Respectfully submitted,

Frangione Engineering, LC

Robert M Frangione, P.E. Owner & Chief Engineer November 5, 2020

Enclosures



## Site









Silpe Existing Drainage
Prepared by Microsoft
HydroCAD® 10.10-4a s/n 11202 © 2020 HydroCAD Software Solutions LLC

#### **Events for Subcatchment 1S: Site**

Event	Rainfall	Runoff	Volume
	(inches)	(cfs)	(cubic-feet)
1-Year	2.90	2.49	10,993
2-Year	3.40	3.23	14,189
5-Year	4.30	4.60	20,220
10-Year	5.10	5.84	25,780
25-Year	6.40	7.87	35,065

Printed 11/2/2020

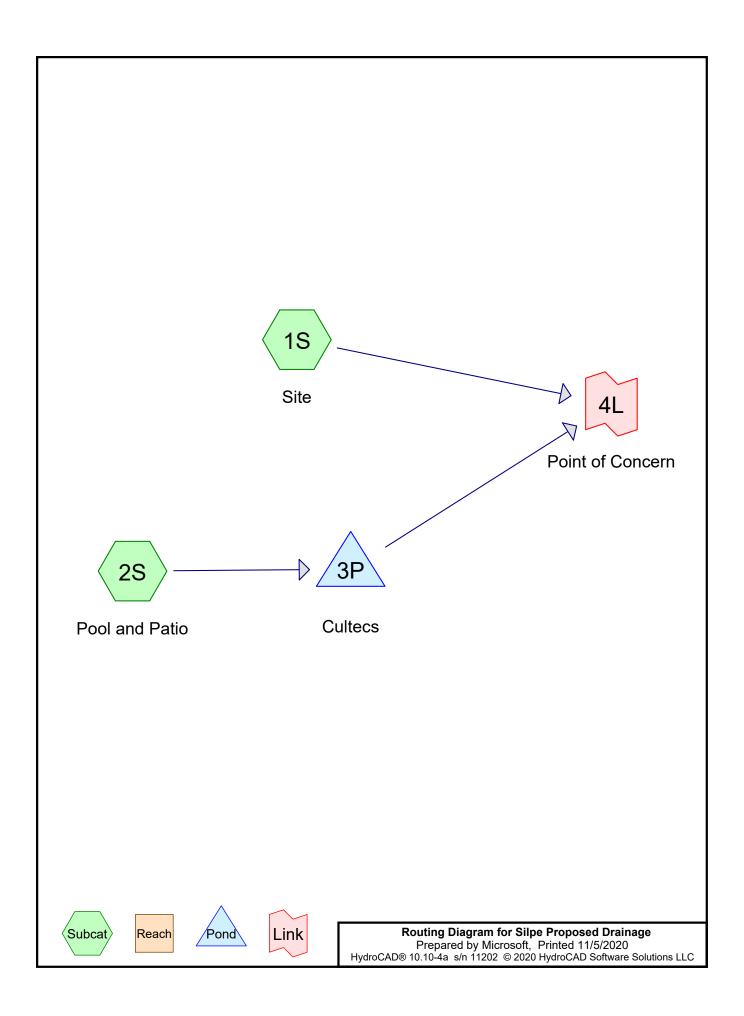
Page 2

#### **Summary for Subcatchment 1S: Site**

Runoff = 7.87 cfs @ 12.24 hrs, Volume= 35,065 cf, Depth> 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs Type III 24-hr 25-Year Rainfall=6.40"

	Α	rea (sf)	CN	Description				
*		3,236	98	Ex. House				
*		8,060	98	Ex. Drive				
*		327	98	Ex. Walks				
*		721	98	Ex. Deck				
*		388	98	Ex. Porch				
*		21	98	Ex. Pads				
*		274	98	Ex. Patio				
*		22,339	89	<50% Gras	s cover, Po	or, HSG D (wetlands)		
		2,886	61	>75% Gras	s cover, Go	ood, HSG B		
_		54,058	80	>75% Grass cover, Good, HSG D				
		92,310	84	Weighted Average				
		79,283		85.89% Per	vious Area			
		13,027		14.11% lmp	ervious Ar	ea		
	Тс	Length	Slope	,	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	16.3	97	0.0120	0.10		Sheet Flow, Sheet		
						Grass: Dense n= 0.240 P2= 3.50"		
	1.7	258	0.0239	2.49		Shallow Concentrated Flow, Shallow Concentrated		
_						Unpaved Kv= 16.1 fps		
	18.0	355	Total					



Silpe Proposed Drainage
Prepared by Microsoft
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#### **Events for Link 4L: Point of Concern**

Event	Inflow	Primary	Volume
	(cfs)	(cfs)	(cubic-feet)
1-Year	2.42	2.42	10,690
2-Year	3.17	3.17	13,855
5-Year	4.59	4.59	19,831
10-Year	5.82	5.82	25,346
25-Year	7.83	7.83	34,563

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#### **Summary for Subcatchment 1S: Site**

Runoff = 7.65 cfs @ 12.24 hrs, Volume= 34,066 cf, Depth> 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs Type III 24-hr 25-Year Rainfall=6.40"

	А	rea (sf)	CN I	Description					
*		3,236	98	Ex. House					
*		7,293	98	Ex. Drive					
*		532	98	Ex. & Pr. Walks					
*		721	98	Ex. Deck					
*		388	98	Ex. Porch					
*		39	98 I	Ex. & Pr. Pa	ads				
*		274	98 I	Ex. Patio					
*		22,339	89 -	<50% Gras	s cover, Po	oor, HSG D (wetlands)			
		2,886	61	>75% Gras	s cover, Go	ood, HSG B			
		51,971	80 :	>75% Gras	s cover, Go	ood, HSG D			
		89,679	84 \	Weighted A	verage				
		77,196	;	36.08% Per	rvious Area				
		12,483	•	13.92% lmp	pervious Ar	ea			
	Тс	Length	Slope	,	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	16.3	97	0.0120	0.10		Sheet Flow, Sheet			
						Grass: Dense n= 0.240 P2= 3.50"			
	1.7	258	0.0239	2.49		Shallow Concentrated Flow, Shallow Concentrated			
						Unpaved Kv= 16.1 fps			
	18.0	355	Total						

#### **Summary for Subcatchment 2S: Pool and Patio**

Runoff = 0.38 cfs @ 12.08 hrs, Volume= 1,350 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs Type III 24-hr 25-Year Rainfall=6.40"

	Α	rea (sf)	CN	Description
*		900	98	Pr. Pool
*		1,731	98	Pr. Patio & Pergola
		2,631 2,631	98	Weighted Average 100.00% Impervious Area
	Tc (min)	Length (feet)	Slop (ft/f	

**Direct Entry, Direct** 

Type III 24-hr 25-Year Rainfall=6.40"

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Printed 11/5/2020

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#### **Summary for Pond 3P: Cultecs**

Inflow Area =	2,631 sf,100.00% Impervious,	Inflow Depth > 6.16" for 25-Year event
Inflow =	0.38 cfs @ 12.08 hrs, Volume=	1,350 cf
Outflow =	0.36 cfs @ 12.10 hrs, Volume=	1,317 cf, Atten= 4%, Lag= 1.2 min
Discarded =	0.02 cfs @ 12.10 hrs, Volume=	819 cf
Primary =	0.35 cfs @ 12.10 hrs, Volume=	498 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs / 2 Peak Elev= 471.39' @ 12.10 hrs Surf.Area= 260 sf Storage= 264 cf

Plug-Flow detention time= 98.0 min calculated for 1,317 cf (98% of inflow) Center-of-Mass det. time= 82.3 min (826.0 - 743.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	469.50'	167 cf	8.00'W x 32.50'L x 2.04'H Field A
			531 cf Overall - 114 cf Embedded = 417 cf x 40.0% Voids
#2A	470.00'	114 cf	Cultec C-100HD x 8 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 2 rows
		000 (	T ( ) A ( ) ) ) O

280 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	469.50'	1.250 in/hr Exfiltration over Surface area
			Conductivity to Groundwater Elevation = 468.00'
#2	Primary	471.00'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

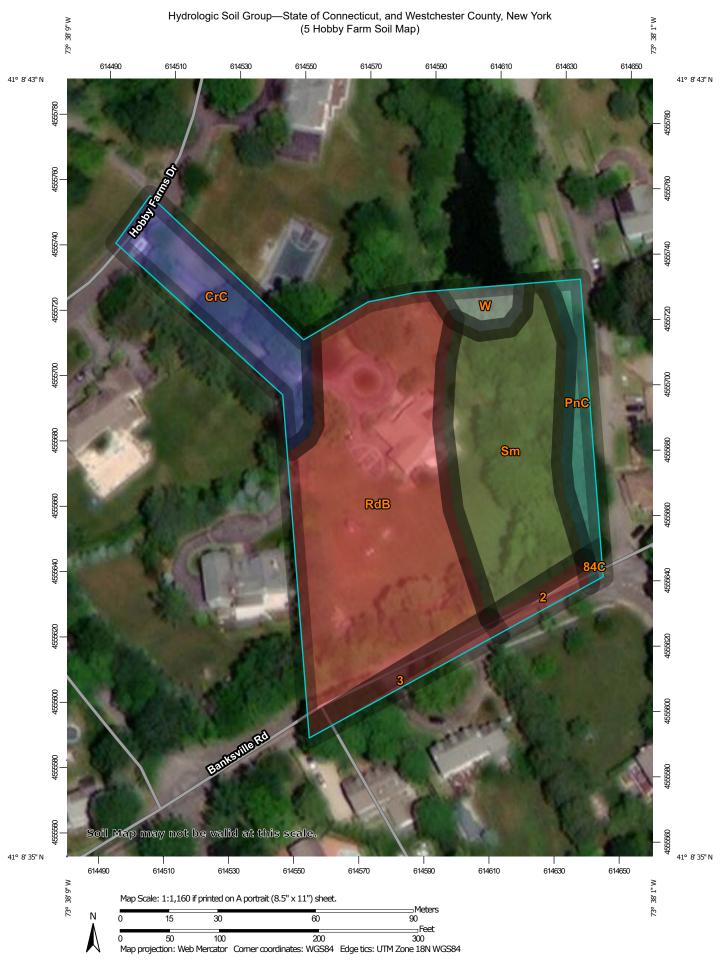
**Discarded OutFlow** Max=0.02 cfs @ 12.10 hrs HW=471.38' (Free Discharge) 1=Exfiltration (Controls 0.02 cfs)

Primary OutFlow Max=0.34 cfs @ 12.10 hrs HW=471.38' (Free Discharge) 2=Orifice/Grate (Orifice Controls 0.34 cfs @ 2.11 fps)

#### **Summary for Link 4L: Point of Concern**

Inflow Area = 92,310 sf, 16.37% Impervious, Inflow Depth > 4.49" for 25-Year event Inflow = 7.83 cfs @ 12.24 hrs, Volume= 34,563 cf
Primary = 7.83 cfs @ 12.24 hrs, Volume= 34,563 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs



#### MAP LEGEND Area of Interest (AOI) С Area of Interest (AOI) C/D Soils D **Soil Rating Polygons** Not rated or not available Α **Water Features** A/D Streams and Canals Transportation B/D Rails ---Interstate Highways C/D **US Routes** D Major Roads Not rated or not available Local Roads Soil Rating Lines Background Aerial Photography Not rated or not available **Soil Rating Points** A/D B/D

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12.000.

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

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: State of Connecticut Survey Area Data: Version 20, Jun 9, 2020

Soil Survey Area: Westchester County, New York Survey Area Data: Version 16, Jun 11, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

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

#### **MAP LEGEND**

#### **MAP INFORMATION**

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

### **Hydrologic Soil Group**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2	Ridgebury fine sandy loam, 0 to 3 percent slopes	D	0.1	1.9%
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	D	0.1	2.5%
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	С	0.0	0.4%
Subtotals for Soil Surv	ey Area		0.1	4.8%
Totals for Area of Inter	est		2.8	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	В	0.3	12.1%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	С	0.2	5.9%
RdB	Ridgebury complex, 3 to 8 percent slopes	D	1.4	48.3%
Sm	Sun loam, extremely stony	C/D	0.7	26.4%
W	Water		0.1	2.5%
Subtotals for Soil Surv	vey Area	2.7	95.2%	
Totals for Area of Inter	rest	2.8	100.0%	

#### **Description**

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

#### **Rating Options**

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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1,111		Hole 1 Depth = 24"	urf-lec	nternational			
							Remarks
Trial #	Start / End	Date MM/DD/YY	Time HR:MIN	Elapsed Time Chg/(Total) Min	Gauge Depth, in.	Inner Infiltration Rate in/Hr.	Weather conditions Etc
	Start Test	10/19/2020	12:57	0:15	0.13		
1	End Test	"	13:12	0:15	0.75	2.50	64 degrees & sunny
	Start Test	"	13:13	0:15	0.13		
2	End Test	"	1:28	0:30	0.75	2.50	
	Start Test	"	1:29	0:15	0.13		
3	End Test	"	1:44	0:45	0.75	2.50	
					Average	2.50	
					Design rate (50% Clog)	1.25	