TOWN of WESTON, CONNECTICUT

Incorporated 1787

Conservation Commission

For Office Use Only

APPLICATION NUMBER: _____
Date Received: _____
Fee Paid: _____
Date Rec'd by Commission: _____
Public Hearing by the Commission:
- ☐ Is not required
- ☐ Is scheduled for _____

Date Closed: _____
Action: _____
Final Inspection: Y / N
As-Built Required: Y / N

INLAND WETLANDS AND WATERCOURSES APPLICATION

This Application is for a five-year permit to conduct a regulated activity or activities pursuant to the Inland Wetlands and Watercourses Regulations of the Town of Weston ("The Regulations")

TITLE OF PROJECT *(general purpose)* 24 Hill Crest Pool & Patio

PROPERTY ADDRESS: 24 Hill Crest Lane

Assessor's Map # 8 **Block #** 1 **Lot #** 18

Total Acres 2.07 Total Acres of Wetlands and Watercourses 0.07

Acreage of Wetlands and Watercourses Altered 0 Upland Area Altered 5,000 sq.ft.

Acres Linear Feet of Stream Alteration 0 Total Acres Proposed Open Space N/A

OWNER(S): *(Please list all owners, attach extra sheet if necessary)*

Name: Chris Redlitz & Beverly Parenti Phone: _____

Address: 24 Hill Crest Road, Weston, CT 06883

Email: _____

APPLICANT/AUTHORIZED AGENT:

Name: Kousidis Engineering, LLC (Jim Kousidis) Phone: (203) 557-8943

Address: 10-B First Street, Norwalk, CT 06855

Email: jim@kousidisengineering.com

CONSULTANTS: *(Please provide, if applicable)*

Engineer: Jim Kousidis Phone: (203) 557-8943

Address: 10-B First Street, Norwalk, CT 06855 Email: jim@kousidisengineering.com

Soil Scientist: _____ Phone: _____

Address:_____ Email: _____

Legal Counsel: _____ Phone: _____

Address:_____ Email: _____

Surveyor: _____ Phone: _____

Address:_____ Email: _____

PROPERTY INFORMATION

Property Address: 24 Hill Crest Road, Weston, CT 06883

Existing Conditions *(Describe existing property and structures)*: _____

Single-family residence with attached garage.

Provide a detailed description and purpose of proposed activity *(attach sheet with additional information if needed)*: 16' x 35' inground pool with associated patios, retaining walls, grading, and drainage improvements.

Is this property within a subdivision *(circle)*: Yes or No

Square feet of proposed impervious surfaces *(roads, buildings, parking, etc.)*: 5,035 sq.ft.

Subject property to be affected by proposed activity contains:

- ☒ wetlands soils
- ☐ swamp †
- ☐ floodplain †
- ☐ marsh †
- ☐ bog †
- ☐ lake or pond
- ☐ stream or river †
- ☐ other _____

The proposed activity will involve the following within wetlands, watercourse, and/or review area:

- ☐ †Alteration
- ☐ Discharge to
- ☒ Removal of Materials
- ☒ Construction
- ☐ Discharge from
- ☐ Deposition of Materials
- ☐ Pollution
- ☐ Bridge or Culvert
- ☐ Other_____

Amount, type, and location of materials to be removed, deposited, or stockpiled:

154 CY of Excavation, 107 Y of Fill. Excess removed & deposited legally

Description, work sequence, and duration of activities:

Construction of a 16' x 35' inground pool and spa with an attached permeable patios, retaining walls, driveway expansion and accessory deck. Approximately 6 month duration of activity.

Describe alternatives considered and why the proposal described herein was chosen:

Construction of an impermeable patio with separate drainage system

Does the proposed activity †involve the installation and/or repair of an existing septic system(s) *(circle)*: Yes or No

The Westport/Weston Health District Approval: _____

ADJOINING MUNICIPALITIES AND NOTICE:

If any of the situations below apply, the applicant is required to give written notice of his/her application to the Inland Wetlands Agency of the adjoining municipality, on the same day that he/she submits this application. Notification must be sent by Certified Mail with Return Receipt Requested.

- The property is located within 500 feet of any town boundary line;
- A significant portion of the traffic to the completed project will use streets within the adjoining municipality to enter or exit the site;
- A portion of the water drainage from the project site will flow through and significantly impact the sewage system or drainage systems within the adjoining municipality; or
- Water runoff from the improved site will impact streets or other municipal or private property within the adjoining municipality

AQUARION WATER COMPANY

Pursuant to Section 8.4 of the Weston regulations, the Aquarion Water Company must be notified of any regulated activity proposed within its watersheds. Maps showing approximate watershed boundaries are available at the office of the Commission. If the project site lies within these boundaries, send notice, site plan, and grading and erosion control plan via certified mail, return receipt requested, within seven (7) days of submitting application to the Commission, to:

George S. Logan, Director – Environmental Management
Aquarion Water Company
714 Black Rock Turnpike
Easton, CT 06612

The Commissioner of the Connecticut Department of Public Health must also be notified in the same manner in a format prescribed by that commissioner.

The undersigned, as owner(s) of the property, hereby consents to necessary and proper inspections of the above mentioned property by Commissioners and agents of the Conservation Commission, Town of Weston, at reasonable times, both before and after a final decision has been issued by the Commission.

The undersigned hereby acknowledges to have read the "Application Requirements and Procedures" in completing this application.

The undersigned hereby certifies that the information provided in this application, including its supporting documentation is true and he/she is aware of the penalties provided in Section 22a-376 of the Connecticut General Statues for knowingly providing false or misleading information.

Signature of Owner(s) of Record — Date

J. Harris — April 14, 2022

Signature of Authorized Agent — Date

FOR OFFICE USE ONLY

- Administrative Approval

Initials — Date

March 29, 2022

TO WHOM IT MAY CONCERN:

We, Chris Redlitz and Beverly Parenti, owners of 24 Hill Crest Lane, Weston, CT, authorize Kousidis Engineering, LLC to represent us to the Aspetuck Health District for the submission of applications related to the permitting of a septic reserve design at the subject property and to the Conservation Commission for the submission of an application related to the construction of an inground pool and associated patio.

CRedlitz
_____
Chris Redlitz (Owner)

Beverly Parenti
_____
Beverly Parenti (Owner)

Joseph & Irina Leone
20 Hill Crest Lane
Weston, CT 06883

Jeffrey C & Nancy K Pellegrini
22 Hill Crest Lane
Weston, CT 06883

26 Hill Crest LLC
159 Steephill Road
Weston, CT 06883

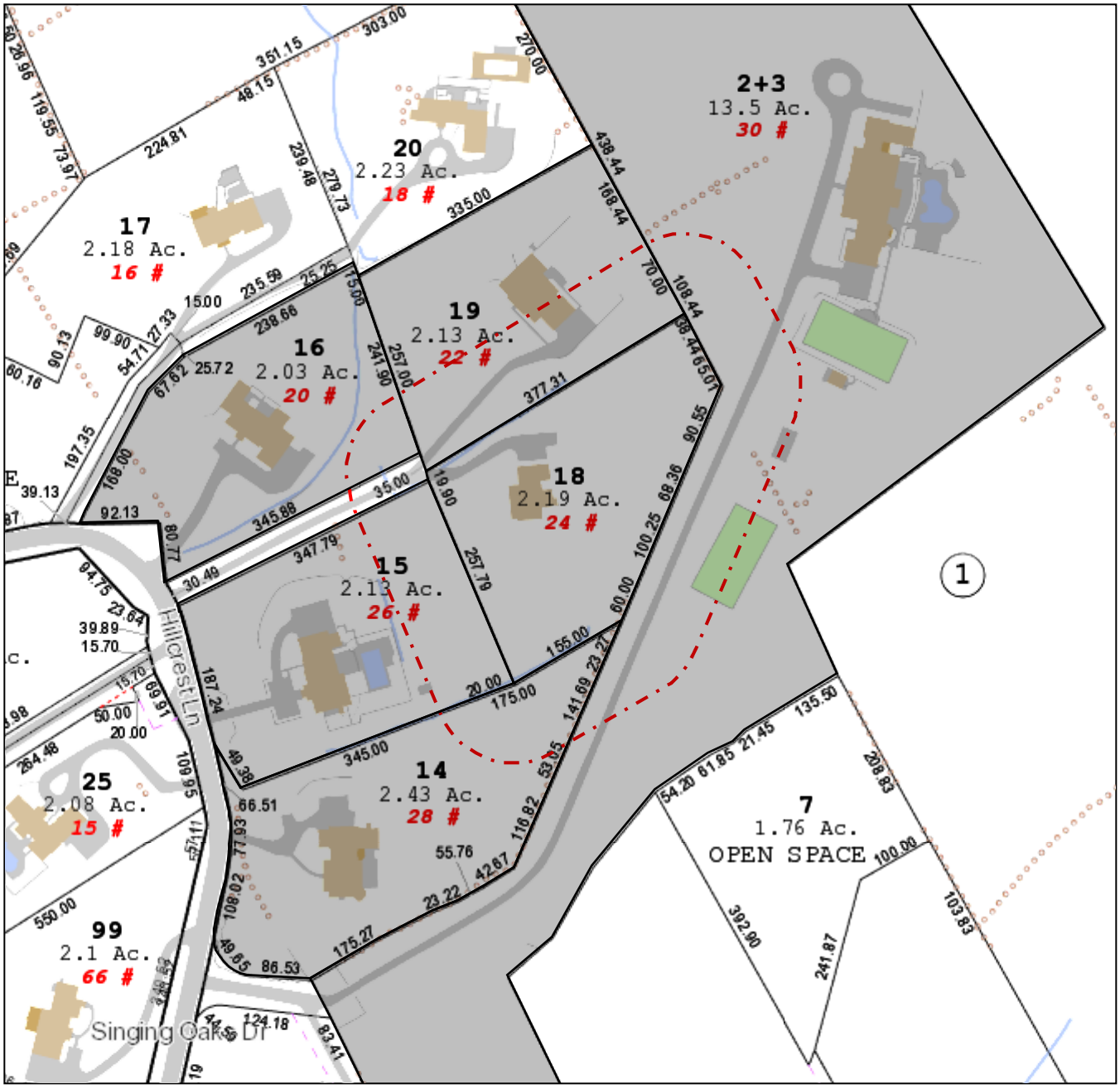
Daniel & Carolina Bara
28 Hill Crest Lane
Weston, CT 06883

Victor & Susan C Niederhoffer
30 Hill Crest Lane
Weston, CT 06883

Town of Weston

Geographic Information System (GIS)

Date Printed: 4/5/2022



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Weston and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 100 ft

0 100 Feet

N W E S

Town of Weston, CT

Property Listing Report

Map Block Lot	8 1 18	Unique Identifier	8118		
Developer Map	3604A	Developer Lot	5	Building #	1

Property Information

Property Location	24 HILL CREST LANE
Mailing Address	24 HILL CREST LANE WESTON CT 06883
Land Use	Residential
Zoning Code	R-2AC
Neighborhood	5-0

Owner	REDLITZ-PARENTI FAMILY LIVING TRUST
Co-Owner	
Book / Page	651/ 303
Land Class	Residential
Census Tract	83430
Acreage	2.19

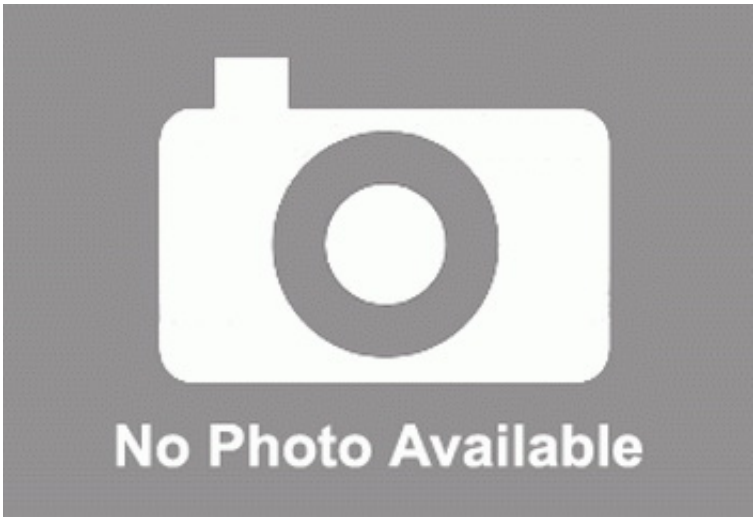
Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	888057	621640
Outbuildings	0	0
Land	277600	194320
Total	1165657	815960

Building Area Info - sq/ft

Living	5007
Basement	1750
Finished Basement	1200
Fin Bsmt Quality	Average Quality



Primary Construction Details

Year Built	2013
Building Desc.	Residential
Building Style	Colonial
Stories	2
Exterior Walls	Wood Shingles
Exterior Walls 2	
Interior Walls	Drywall
Interior Walls 2	
Interior Floors 1	Hardwood
Interior Floors 2	

Heating Fuel	Oil
Heating Type	Hydro
AC Type	Central
Bedrooms	5
Full Bathrooms	4
Half Bathrooms	1
Extra Fixtures	0
Total Rooms	11
Bath Style	NA
Kitchen Style	
Occupancy	1

Building Use	Single Family
Building Condition	Average/Good
Frame Type	Wood Frame
Fireplaces	1
Bsmt Gar	0
Bsmt Access	
Building Grade	0
Roof Style	Gable
Roof Cover	Arch Shingles

Report Created On 4/5/2022

Town of Weston, CT

Property Listing Report

Map Block Lot	8 1 18	Unique Identifier	8118		
Developer Map	3604A	Developer Lot	5	Building #	1

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
Other	Generator	1		2022

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built
Garage	Frame	1026	Average/Good	2013
Porch	Open	48	Average/Good	2013
Porch	Open	372	Average/Good	2013

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
REDLITZ-PARENTI FAMILY LIVING TRUST	651_ 303	1/11/2022	0
REDLITZ-PARENTI FAMILY LIVING TRUST	641_ 222	6/16/2021	1499000
NORDIC BUILDERS INC	0474_0788	7/18/2008	550000
SINGING OAKS BUILDERS LLC	0411_0501	4/4/2005	550000
SINGING OAKS DEVELOPERS LLC	0362_0027	8/20/2003	0
ALBIN ERNEST C JR ET ALS	0181_0240	12/29/1900	0

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

STATEWIDE INLAND WETLANDS & WATERCOURSES ACTIVITY REPORTING FORM

Pursuant to section 22a-39(m) of the General Statutes of Connecticut and section 22a-39-14 of the Regulations of Connecticut State Agencies, inland wetlands agencies must complete the Statewide Inland Wetlands & Watercourses Activity Reporting Form for **each** action taken by such agency.

This form may be made part of a municipality's inland wetlands application package. If the municipality chooses to do this, it is recommended that a copy of the Town and Quadrangle Index of Connecticut and a copy of the municipality's subregional drainage basin map be included in the package.

Please remember, the inland wetlands agency is responsible for ensuring that the information provided is **accurate** and that it reflects the **final** action of the agency. Incomplete or incomprehensible forms will be mailed back to the agency. Instructions for completing the form are located on the following pages.

The inland wetlands agency shall mail completed forms for actions taken during a calendar month no later than the 15th day of the following month to the Department of Energy and Environmental Protection (DEEP). Do **not** mail this cover page or the instruction pages. Please mail **only** the **completed** reporting form to:

DEEP Land & Water Resources Division
Inland Wetlands Management Program
79 Elm Street, 3rd Floor
Hartford, CT 06106

Questions may be directed to the DEEP's Inland Wetlands Management Program at (860) 424-3019.

INSTRUCTIONS FOR COMPLETING

THE STATEWIDE INLAND WETLANDS & WATERCOURSES ACTIVITY REPORTING FORM

Use a separate form to report EACH action taken by the Agency. Complete this electronic fill-in form as described below. If completing by hand please print and use the pdf version. Do NOT submit a reporting form for withdrawn actions.

PART I: Must Be Completed By The Inland Wetlands Agency

1. Choose the year and month the Inland Wetlands Agency took the action being reported. If multiple actions were taken regarding the same project or activity then multiple forms need to be completed.

2. Choose ONE code letter to describe the final action or decision taken by the Inland Wetlands Agency. Do NOT submit a reporting form for withdrawn actions. Do NOT enter multiple code letters (for example, if the same project or activity had both a permit issued and enforcement action, submit two forms for the two separate actions).

   A = A Permit Granted by the Inland Wetlands Agency (not including map amendments, see code D below)
   B = Any Permit Denied by the Inland Wetlands Agency
   C = A Permit Renewed or Amended by the Inland Wetlands Agency
   D = A Map Amendment to the Official Town Wetlands Map - or -
   An Approved/Permitted Wetland or Watercourse Boundary Amendment to a Project Site Map
   E = An Enforcement Action: Permit Revocation, Citation, Notice of Violation, Order, Court Injunction, or Court Fines
   F = A Jurisdictional Ruling by the Inland Wetlands Agency (activities "permitted as of right" or activities considered non-regulated)
   G = An Agent Approval pursuant to CGS 22a-42a(c)(2)
   H = An Appeal of Agent Approval Pursuant to 22a-42a(c)(2)

3. Check "yes" if a public hearing was held in regards to the action taken; otherwise check "no".

4. Enter the name of the Inland Wetlands Agency official verifying that the information provided on this form is accurate and that it reflects the FINAL action of the agency.

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant - If Part II is completed by the applicant, the applicant MUST return the form to the Inland Wetlands Agency. The Inland Wetlands Agency MUST ensure that the information provided is accurate and that it reflects the FINAL action of the Agency.

5. Enter the name of the municipality for which the Inland Wetlands Agency has jurisdiction and in which the action/project/activity is occurring.

   Check "yes" if the action/project/activity crosses municipal boundaries and enter the name(s) of the other municipality(ies) where indicated. Check "no" if it does not cross municipal boundaries.

6. Enter the USGS Quad Map name or number (1 through 115) as found on the CT Town and Quadrangle Index Map (the directory to all USGS Quad Maps) that contains the location of the action/project/activity. USGS Quad Map information is available at: https://portal.ct.gov/-/media/deep/gis/resources/IndexNamedQuadTownpdf.pdf

   ALSO enter the four-digit identification number of the corresponding Subregional Drainage Basin in which the action/project/activity is located. If located in more than one subregional drainage basin, enter the number of the basin in which the majority of the action/project/activity is located. Town subregional drainage basin maps can be found at UConn CLEAR's website: http://clear.uconn.edu/data/map_set/index.htm (no roads depicted) or at CTECO: http://www.cteco.uconn.edu/map_catalog.asp (depicts roads, choose town and a natural drainage basin map).

7. Enter the name of the individual applying for, petitioning, or receiving the action.

8. Enter the name and address or location of the action/project/activity. Check if the action/project/activity is TEMPORARY or PERMANENT in nature. Also provide a brief DESCRIPTION of the action/project/activity. It is always best to provide as much information as possible (for example, don't state "forestry," provide details such as "20 acre forest harvest, permit required for stream crossing.")

9. Carefully review the list below and enter ONLY ONE code letter which best characterizes the action/project/activity. All state agency projects must code "N."

A = Residential Improvement by Homeowner
B = New Residential Development for Single Family Units
C = New Residential Development for Multi-Family / Condos
D = Commercial / Industrial Uses
E = Municipal Project
F = Utility Company Project
G = Agriculture, Forestry or Conservation
H = Wetland Restoration, Enhancement, Creation
I = Storm Water / Flood Control
J = Erosion / Sedimentation Control
K = Recreation / Boating / Navigation
L = Routine Maintenance
M = Map Amendment
N = State Agency Project
P = Other (this code includes the approval of concept, subdivision or similar plans with no-on-the-ground work)

10. Enter between one and four code numbers to best characterize the action/project/activity being reported. Enter "NA" if this form is being completed for the action of map amendment. You MUST provide code 12 if the activity is located in an established upland review area. You MUST provide code 14 if the activity is located beyond the established upland review area or no established upland review area exists.

1 = Filling
2 = Excavation
3 = Land Clearing / Grubbing (no other activity)
4 = Stream Channelization
5 = Stream Stabilization (includes lakeshore stabilization)
6 = Stream Clearance (removal of debris only)
7 = Culverting (not for roadways)
8 = Underground Utilities Only (no other activities)
9 = Roadway / Driveway Construction (including related culverts)
10 = Drainage Improvements
11 = Pond, Lake Dredging / Dam Construction
12 = Activity in an Established Upland Review Area
14 = Activity in Upland

Examples: Jurisdictional ruling allowing construction of a parking lot in an upland where the municipality does not have an established upland review area must use code 14, other possible codes are 2 and 10. Permitted construction of a free standing garage (residential improvement by homeowner) partially in an established upland review area with the remainder in the upland must use code 12 and 14, other possible codes are 1 and 2.

11. Leave blank for TEMPORARY alterations but please indicate action/project/activity is temporary under question #8 on the form. For PERMANENT alterations, enter in acres the area of wetland soils or watercourses altered. Include areas that are permanently altered, or are proposed to be, for all agency permits, denials, amendments, renewals, jurisdictional rulings, and enforcement actions. For those activities that involve filling or dredging of lakes, ponds or similar open water bodies enter the acres filled or dredged under "open water body." For those activities that involve directly altering a linear reach of a brook, river, lakeshore or similar linear watercourse, enter the total linear feet altered under "stream." Remember, these figures represent only the acreage altered, not the total acreage of wetlands or watercourses on the site. You MUST provide all information in ACRES (or linear feet as indicated) including those areas less than one acre. To convert from square feet to acres, divide square feet by the number 43,560. If this report is being completed for an agency jurisdictional ruling and detailed information is not available, provide an estimate. Enter zero if there is no alteration.

12. Enter in acres the area of upland altered as a result of an ACTIVITY REGULATED BY the inland wetlands agency, or as a result of an AGENT APPROVAL pursuant to CGS section 22a-42a(c)(2). Leave blank for TEMPORARY alterations but please indicate action/project/activity is temporary under question #8 on the form. Include areas that are permanently altered, or proposed to be permanently altered, for all agent approvals, agency permits, denials, amendments, renewals, jurisdictional rulings, and enforcement actions. You MUST provide all information in ACRES including those areas less than one acre. See directions above (#11) for conversion factor. If this report is being completed for an agent approval or an agency jurisdictional ruling and detailed information is not available, provide an estimate. Enter zero if there is no alteration.

13. Enter the acres that are, or are proposed to be, restored, enhanced or created for all agency permits, denials, amendments, renewals, jurisdictional rulings and enforcement actions. NOTE restored or enhanced applies to previously existing wetlands or watercourses. Created applies to a non-wetland or non-watercourse area which is converted into wetlands or watercourses. For created - question #10 must provide 12 and/or 14 as an answer, and question #12 must also be answered. You MUST provide all information in ACRES including those areas less than one acre. See directions above (#11) for conversion factor. Enter zero if there is no restoration, enhancement or creation.

PART III: To Be Completed By The DEEP - Please leave this area blank. Incomplete or incomprehensible forms will be mailed back to the municipal inland wetlands agency.

WESTON

CONNECTICUT SUBREGIONAL BASINS AND SURFACE WATER FLOW DIRECTIONS

Explanation

Town Boundary

Subregional Watershed Boundary

4201 Subrg. Basin ID# - as designated by CTDEP

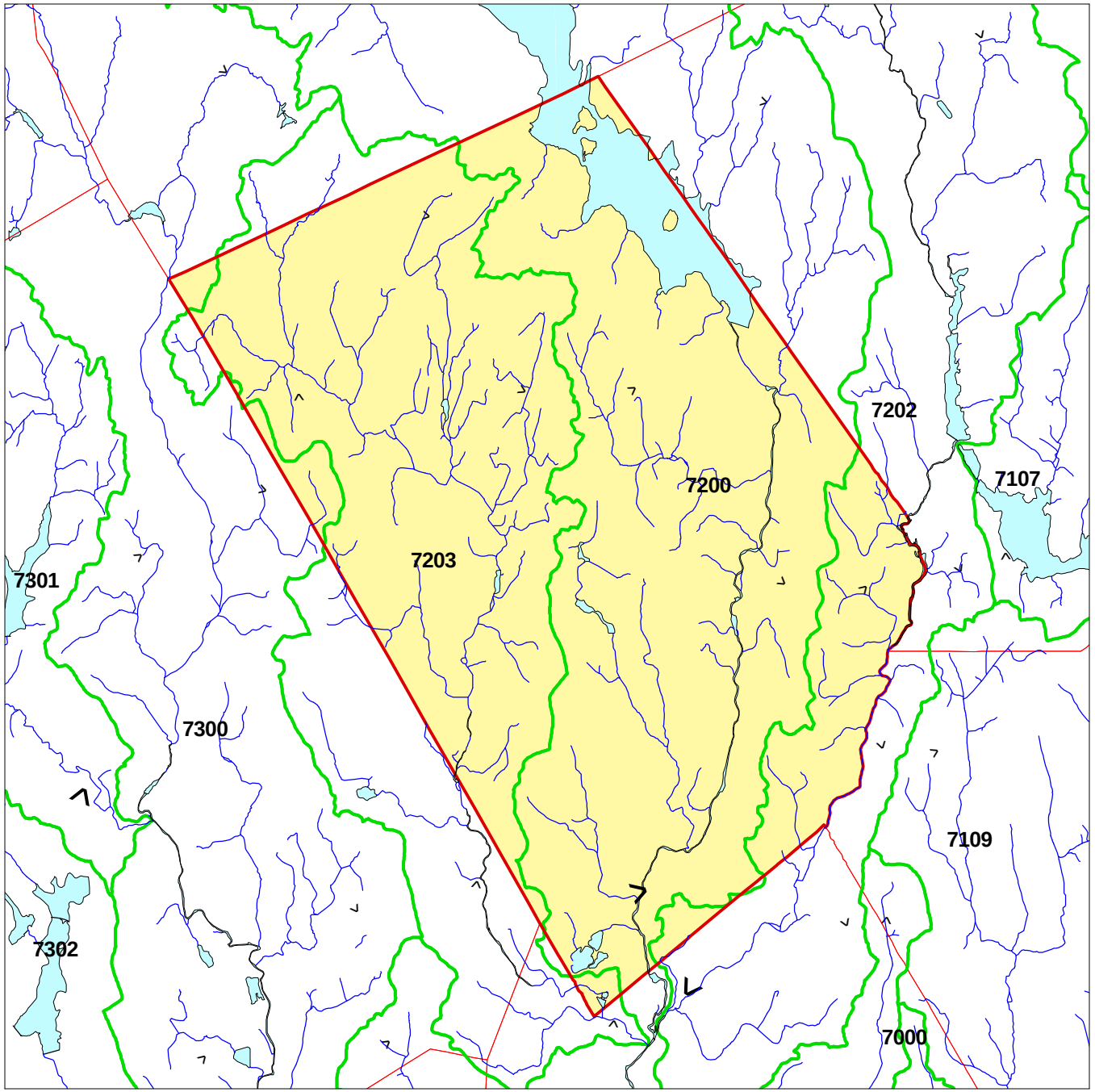
Watercourse Open Water

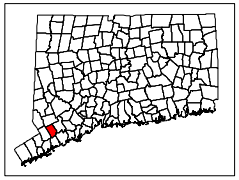
Basin Outlet

Surface Water Flow Direction

The table provides statistics for each subregional basin. Shown are the areas of the basin within the town, the percentage for that area, and the percent of the town covered by each basin.

Sbas_nc	AcresInTw	Percofbs	Percoftwn
7200	6796.16	21.9	51.4
7202	1156.03	7.8	8.7
7203	5065.58	66.4	38.3
7300	202.24	1.0	1.5





Town Area: 13220 Acres

Digital layers provided by the CTDEP.
Map composed by the NEMO project.
For educational purposes only.

1 0 1 Miles

The University of Connecticut, CES: November 02, 1999

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions.
If completing by hand - please print and use the pdf version.
Incomplete or incomprehensible forms will be mailed back to the municipal inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: **Click Here for Year** month: **Click Here for Month**
2. CHOOSE ACTION TAKEN (see instructions for code): **Click Here to Choose a Code**
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

   (type name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (type name): **Weston**
   does this project cross municipal boundaries (check one)? yes ☐ no ☒
   if yes, list the other town(s) in which the activity is occurring (type name(s)): _____, _____
6. LOCATION (click on hyperlinks for information): USGS quad map name: **Botsford** or quad number: **92**
   subregional drainage basin number: **4201**
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): **Kousidis Engineering, LLC**
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (type information): **24 Hill Crest Lane, Weston, CT 06883**
   briefly describe the action/project/activity (check and type information): temporary ☐ permanent ☒ description: **Inground pool with associated patio and retaining walls.**
9. ACTIVITY *PURPOSE* CODE (see instructions for code): **A**
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): **1, 2, 12, 14**
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, type acres or linear feet as indicated):
    wetlands: **0.00** acres open water body: **0.00** acres stream: **0.00** linear feet
12. UPLAND AREA ALTERED (type acres as indicated): **0.15** acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type acres as indicated): **0** acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

WETLAND DELINEATION

FOR THE PROPERTY LOCATED AT:

24 HILL CREST LANE

WESTON, CONNECTICUT

REPORT PREPARED BY:

ALEKSANDRA MOCH

SOIL & WETLAND SCIENTIST

CERTIFIED PROFESSIONAL IN EROSION
AND SEDIMENT CONTROL
GEOLOGIST/HYDROGEOLOGIST

March 26, 2022

SITE DESCRIPTION

The property is a flag lot located on the northwestern side of Hill Crest Lane in Weston, CT. This two acres site supports a single-family residence with a driveway and a septic system. Most of the area is maintained as a lawn with wooded edges.

METHODS

Wetland identification was performed on March 26, 2022. This site was evaluated in terms of the presence of poorly drained, very poorly drained, alluvial, and/or floodplain soils and submerged land. The soil types were identified by observation of soil morphology including soil texture, structure, color, etc. Numerous soil samples were taken using an auger. Sampling began within the typical wetland area and continued toward the upland. Soil morphology was observed at soil sampling points along the transect lines perpendicular to the wetland boundary. At each transect, the boundary between the upland and wetland was marked with yellow surveyor's tape labeled "*WET*". Each flag was numbered sequentially 1-8 around a wetland area located within the southern section of the site.

WETLANDS/WATERCOURSES REGULATORY DEFINITION

The Inland Wetlands and Watercourses Act (Connecticut General Statues section 22a-38) defines inland wetlands as *land, including submerged land…which consists of any soil types designated as poorly drained, very poorly drained, alluvial, and floodplain.*

The terms poorly drained and very poorly drained describes the drainage classes of the soil, which are based on frequency and duration of periods of soil saturation due to the fluctuations of ground water table. The terms alluvial and floodplain describe the processes in which the soils were formed.

Watercourses are defined in the statues as *rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof.*

Intermittent watercourse: is determined by a defined permanent channel and bank and the occurrence of two or more of the following characteristics:

- Evidence of scour or deposits of recent alluvium or detritus,
- Presence of standing or flowing water for a duration longer than a particular storm incident, and
- Presence of hydrophytic vegetation.

WETLAND/WATERCOURSE DESCRIPTION

The area flagged in the field consists of a depressional wetland located on the edge of a woodland growing within the southern section of the site. The area supported standing water during the site survey, but the ponding was not deep enough to provide an environment for the vernal pool species development. The edges of the wetland were anchored by trees and mostly invasive shrubs with some remnants of herbaceous ground cover, dormant this time of the year.

WETLAND SOILS

The soils were classified using soil criteria and maps developed by United States Department of Agriculture, Natural Resources Conservation Service.

2- Ridgebury fine sandy loam

The *Ridgebury* series occur in depressions and/or drainageways. This poorly drained soil is underlined by restrictive layer at the depth 20 to 30 inches. 9% of the surface area is covered with cobbles, stones or boulders. The parent material is a coarse-loamy lodgment till derived from granite and/or schist and/or gneiss. The slope is 0 to 5%.

Typical profile

- *0 to 5 inches:* Fine sandy loam
- *5 to 14 inches:* Fine sandy loam
- *14 to 21 inches:* Fine sandy loam
- *21 to 60 inches:* Sandy loam

UPLAND SOILS

73C – Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky

The *Chatfield* series consists of moderately deep, well drained, and somewhat excessively drained soils formed in till. They are nearly level to very steep soils on glaciated plains, hills, and ridges. Slope ranges from 0 to 70 percent. Crystalline bedrock is at depth of 20 to 40 inches.

Typically the surface layer is very dark grayish brown loam with weak fine granular structures. The subsoil is dark brown loam and pale brown dry with medium subangular blocky structure. The substratum is brown flaggy silt loam with fine subangular blocky structure.

The *Charlton* series consists of very deep, well drained loamy soils formed in till. They are nearly level to very steep soils on till plains and hills. Slope ranges from 0 to 50 percent. Thickness of solum ranges from 20 to 38 inches. Depth to bedrock is commonly more than 6 feet.

Typically the surface layer is very dark brown fine sandy loam. The subsoil is strongly brown and yellowish brown fine sandy loam. The substratum is light olive brown gravelly sandy loam.

84C—Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony

The *Paxton* series consists of well drained soils formed in coarse-loamy lodgment till deriving from granite and/or schist and/or gneiss. They are occurring on drumlins, hills and till plains. The slope ranges from 3 to 8 percent.

Typical profile

- *0 to 8 inches:* Fine sandy loam
- *8 to 15 inches:* Fine sandy loam
- *15 to 26 inches:* Fine sandy loam
- *26 to 65 inches:* Gravelly fine sandy loam

The *Montauk* series consists of well drained soils formed in coarse-loamy lodgment till derived from granite and/or coarse-loamy lodgment till derived from gneiss and/or coarse-loamy lodgment till derived from gneiss and/or coarse-loamy lodgment till derived from granite. They are occurring on hills and drumlins. The slope ranges from 3 to 8 percent.

Typical profile

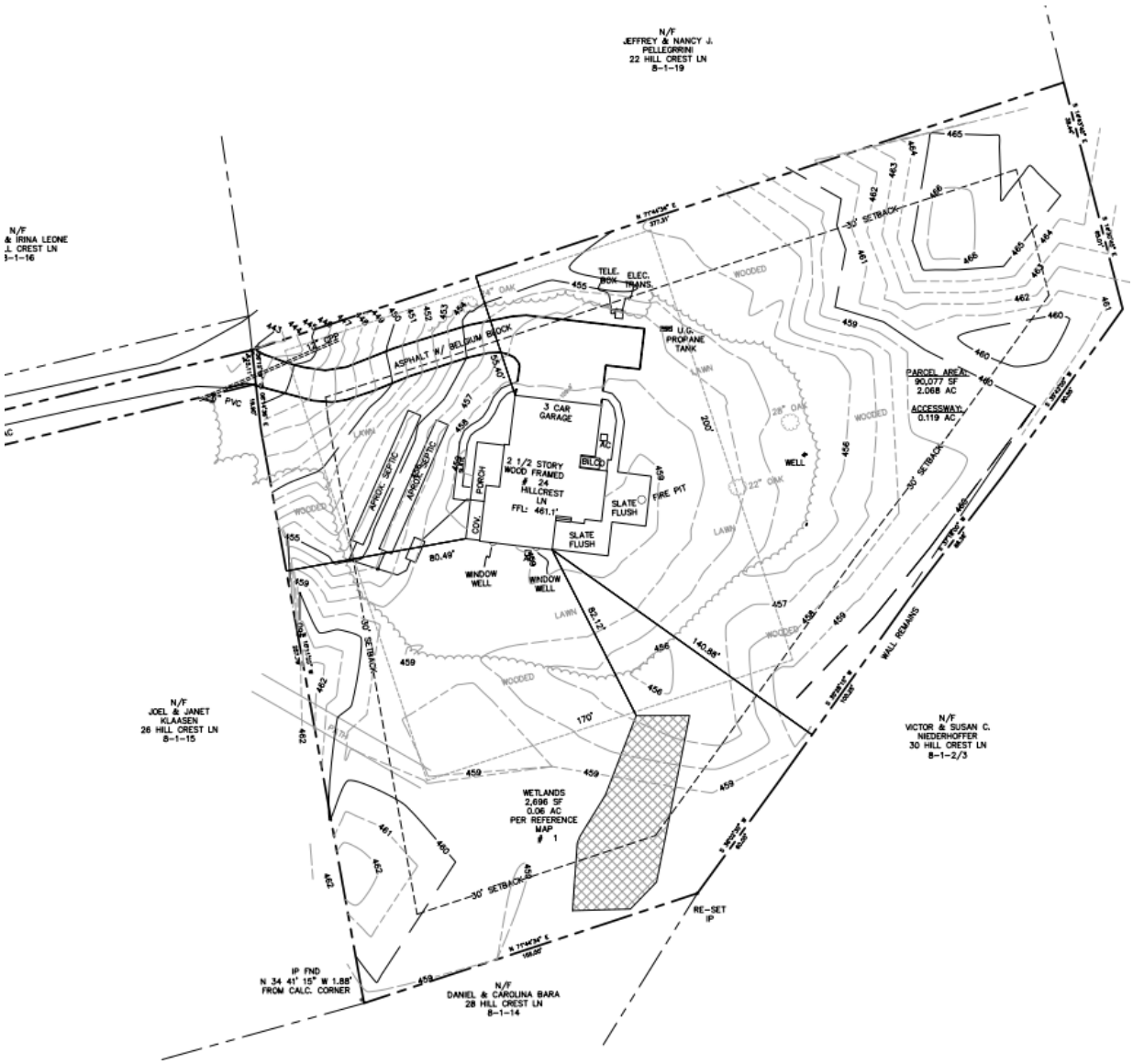
- *0 to 4 inches:* Fine sandy loam
- *4 to 14 inches:* Fine sandy loam
- *14 to 25 inches:* Sandy loam
- *25 to 39 inches:* Gravelly loamy coarse sand
- *39 to 60 inches:* Gravelly sandy loam

Certified by:

A Moch

Aleksandra Moch
Soil and Wetland Scientist


#1
#8
#4


N/F
JEFFREY & NANCY J.
PELLEGRINI
22 HILL CREST LN
8-1-19
N/F
& IRINA LEONE
L CREST LN
3-1-16
ASPHALT W/ BELGIUM BLOCK
3 CAR GARAGE
2 1/2 STORY WOOD FRAMED # 24 HILLCREST LN FFL: 461.1'
PORCH
COV.
BILCO
SLATE FLUSH
FIRE PIT
WELL
WINDOW WELL
WINDOW WELL
U.G. PROPANE TANK
TELE. BOX
ELEC. TRANS.
APPROX. SEPTIC
APPROX. SEPTIC
LAWN
WOODED
PARCEL AREA: 90,077 SF 2.068 AC
ACCESSWAY: 0.119 AC.
30' SETBACK
WALL REMAINS
N/F
JOEL & JANET
KLAASEN
26 HILL CREST LN
8-1-15
N/F
VICTOR & SUSAN C.
NIEDERHOFFER
30 HILL CREST LN
8-1-2/3
WETLANDS
2,696 SF
0.06 AC
PER REFERENCE MAP
1
RE-SET IP
IP FND
N 34° 41' 15" W 1.88'
FROM CALC. CORNER
N/F
DANIEL & CAROLINA BARA
28 HILL CREST LN
8-1-14

Kousidis Engineering, LLC
Land Development Consultants & Site Design

DRAINAGE ANALYSIS

LOCATED AT
24 HILL CREST LANE
WESTON, CONNECTICUT

PREPARED FOR
CHRIS REDLITZ

April 14, 2022

Jim Kousidis, P.E.
CT License No. 26830

KOUSIDIS ENGINEERING, LLC, 10-B First Street, Norwalk, CT 06855. P: (203) 557-8943
www.kousidisengineering.com, jim@kousidisengineering.com

1. EXISTING CONDITIONS

This 90,077-sq. ft. residential property is currently developed with a single-family residence, attached garage and driveway. Test pits at the site indicate highly pervious soils that are adequate to accept a subsurface storm drain system. The topography of the property slopes to the south and west. According to the Web Soil Survey website (map and soil table attached) the soils in the subject area consist of Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky, a well-drained soil with a Hydrologic Soil Group "B".

2. PROPOSED CONDITIONS

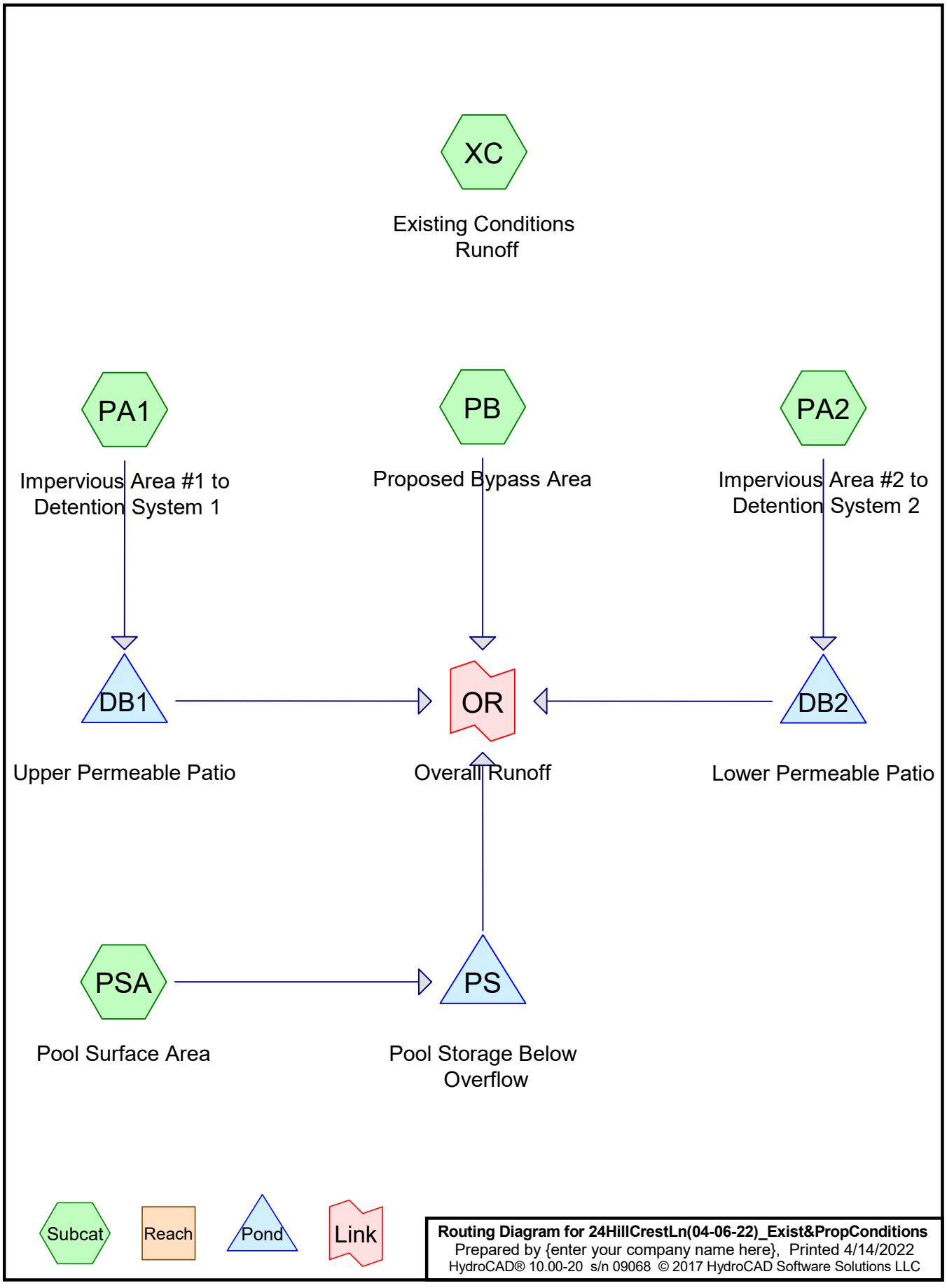
A new development is being proposed for the subject property. The owner is proposing to demolish the existing rear patio and construct a new inground pool with two new permeable patios, a driveway expansion, and a new deck, with associated site improvements. The total proposed impervious surface is 5,035-sq.ft. A stormwater retention system will be installed to satisfy the Town of Weston's requirements of zero increase in runoff for a 24-hour, type III rainfall, 50-year storm event. The new patio area and covered patio must be directed to the stone beds below the proposed permeable patio.

3. DRAINAGE

Under existing conditions, the peak runoff from the site is 6.04 cfs for the 50-year storm. The Town's requirement for zero increase in runoff is satisfied by collecting the new patio area and the covered patio. The runoff from impervious surface area #1 generates a peak 50-year flow of 0.37 cfs. The runoff from impervious surface area #2 generates a peak 50-year flow of 0.26 cfs. The overall post conditions runoff is 5.79 cfs. Subsurface drainage system #1 consists of a 1,600 sq.ft. permeable patio with a of crushed stone bed beneath. Subsurface drainage system #2 consists of a 1,250 sq.ft. permeable patio with a crushed stone bed beneath. In addition to the above, the drainage system was checked for the capacity to hold the first flush from all the new impervious surfaces. The runoff volume from 1" of rainfall is (5,035 sq. ft. x 1"/12"/ft. = 419.58 cu. ft.). The holding capacity of the permeable patios is 495 cu.ft. which well exceeds the 1" minimum requirement of pure storage volume.

4. CONCLUSION

The proposed development will increase the amount of impervious area to this site, resulting in higher peak runoff rates. However, with the installation of the proposed stormwater retention systems, the original flow patterns will be maintained and there will be no increase in peak runoff for the 50-year storm event. In addition to controlling stormwater peak runoff, the proposed design incorporates stormwater treatment to control pollution and provide groundwater recharge capacity. The implementation of these techniques and the overall site design layout will result in a finished project that will minimize sediment and erosion impacts during construction and will have no adverse impacts to adjoining properties upon completion.



Routing Diagram for 24HillCrestLn(04-06-22)_Exist&PropConditions
Prepared by {enter your company name here}, Printed 4/14/2022
HydroCAD® 10.00-20 s/n 09068 © 2017 HydroCAD Software Solutions LLC

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 PA1: Impervious Area #1 to Runoff Area=2,275 sf 100.00% Impervious Runoff Depth>7.06"
Tc=6.0 min CN=98 Runoff=0.37 cfs 1,338 cf

Subcatchment PA2: Impervious Area #2 to Runoff Area=1,600 sf 100.00% Impervious Runoff Depth>7.06"
Tc=6.0 min CN=98 Runoff=0.26 cfs 941 cf

Subcatchment PB: Proposed Bypass Area Runoff Area=85,642 sf 8.51% Impervious Runoff Depth>3.33"
Tc=15.0 min CN=65 Runoff=5.74 cfs 23,737 cf

Subcatchment PSA: Pool Surface Area Runoff Area=560 sf 100.00% Impervious Runoff Depth>7.06"
Tc=3.0 min CN=98 Runoff=0.10 cfs 329 cf

Subcatchment XC: Existing Conditions Runoff Area=90,077 sf 8.45% Impervious Runoff Depth>3.33"
Tc=15.0 min CN=65 Runoff=6.04 cfs 24,967 cf

Pond DB1: Upper Permeable Patio Peak Elev=459.72' Storage=298 cf Inflow=0.37 cfs 1,338 cf
Discarded=0.08 cfs 1,338 cf Primary=0.00 cfs 0 cf Outflow=0.08 cfs 1,338 cf

Pond DB2: Lower Permeable Patio Peak Elev=457.89' Storage=193 cf Inflow=0.26 cfs 941 cf
Discarded=0.06 cfs 941 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 941 cf

Pond PS: Pool Storage Below Overflow Peak Elev=458.00' Storage=186 cf Inflow=0.10 cfs 329 cf
Outflow=0.06 cfs 145 cf

Link OR: Overall Runoff Inflow=5.79 cfs 23,882 cf
Primary=5.79 cfs 23,882 cf

Summary for Subcatchment PA1: Impervious Area #1 to Detention System 1

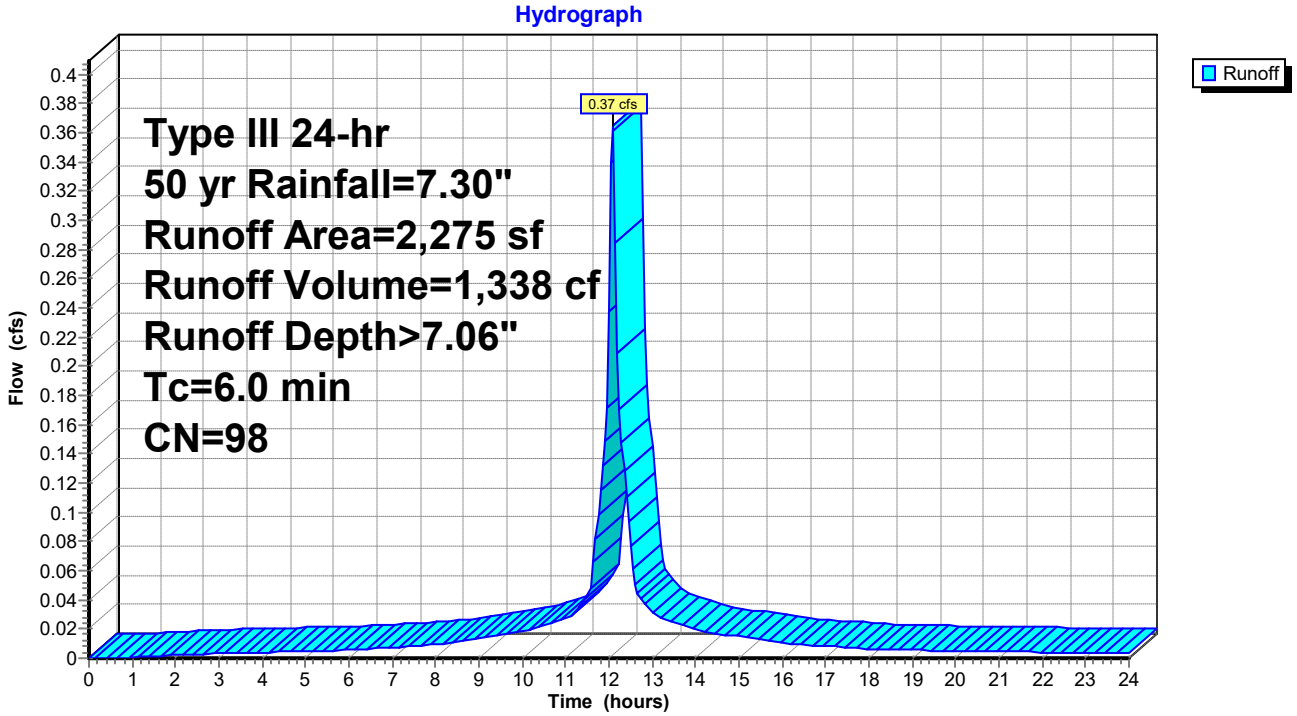
Runoff = 0.37 cfs @ 12.09 hrs, Volume= 1,338 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	125	98	Covered Patio
*	2,150	98	Pool Patio & Walls
	2,275	98	Weighted Average
	2,275		100.00% Impervious Area

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

Subcatchment PA1: Impervious Area #1 to Detention System 1



Summary for Subcatchment PA2: Impervious Area #2 to Detention System 2

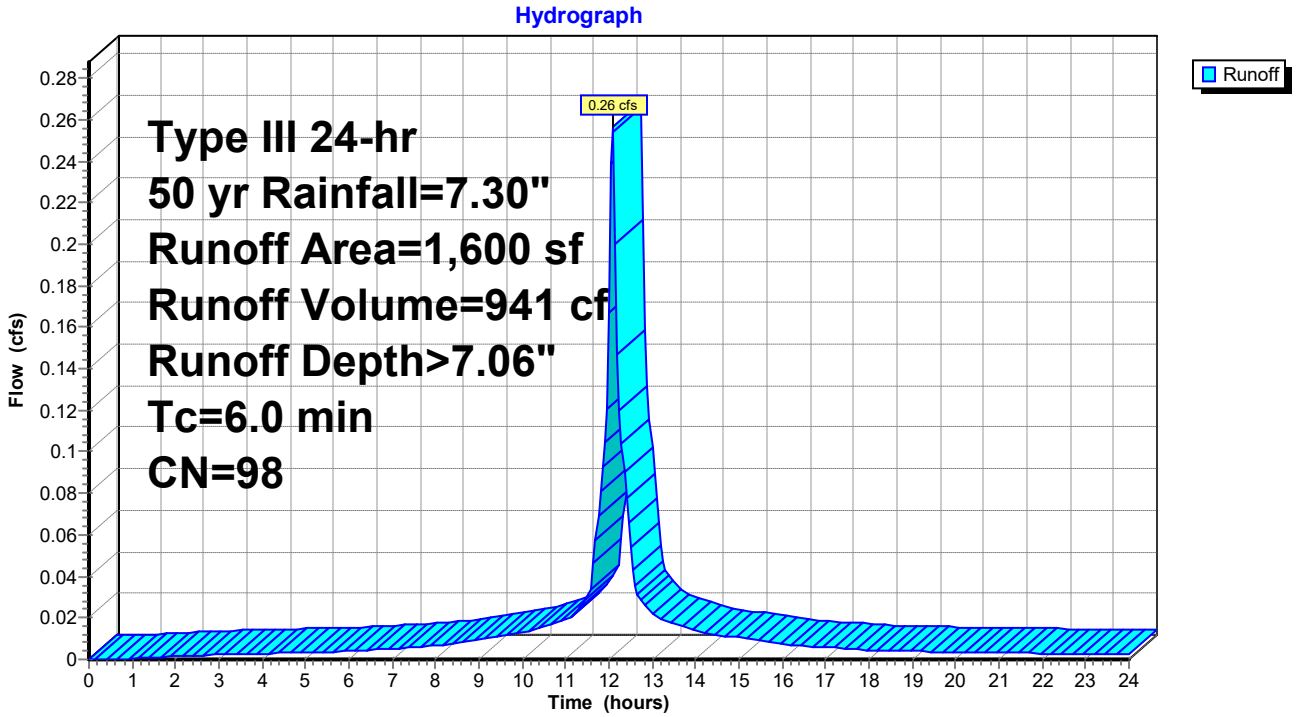
Runoff = 0.26 cfs @ 12.09 hrs, Volume= 941 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	1,600	98	Pool Patio & Walls
	1,600		100.00% Impervious Area

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

Subcatchment PA2: Impervious Area #2 to Detention System 2



Summary for Subcatchment PB: Proposed Bypass Area

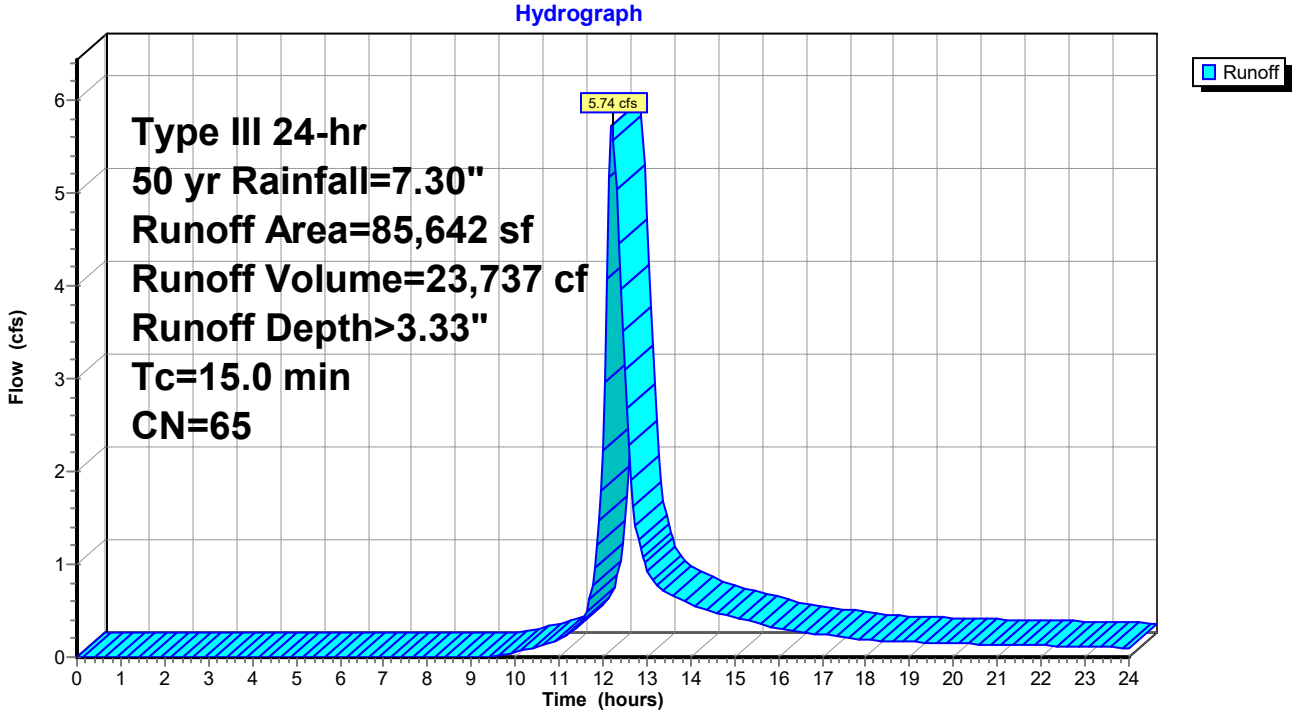
Runoff = 5.74 cfs @ 12.21 hrs, Volume= 23,737 cf, Depth> 3.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	3,080	98	Building
*	3,372	98	Driveway
*	234	98	Patio/Walks
*	350	98	Driveway Expansion
*	250	98	Shed
*	2,996	89	<50% Grass cover, Poor, HSG D (Wetlands)
	75,360	61	>75% Grass cover, Good, HSG B
	85,642	65	Weighted Average
	78,356		91.49% Pervious Area
	7,286		8.51% Impervious Area

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

Subcatchment PB: Proposed Bypass Area



Summary for Subcatchment PSA: Pool Surface Area

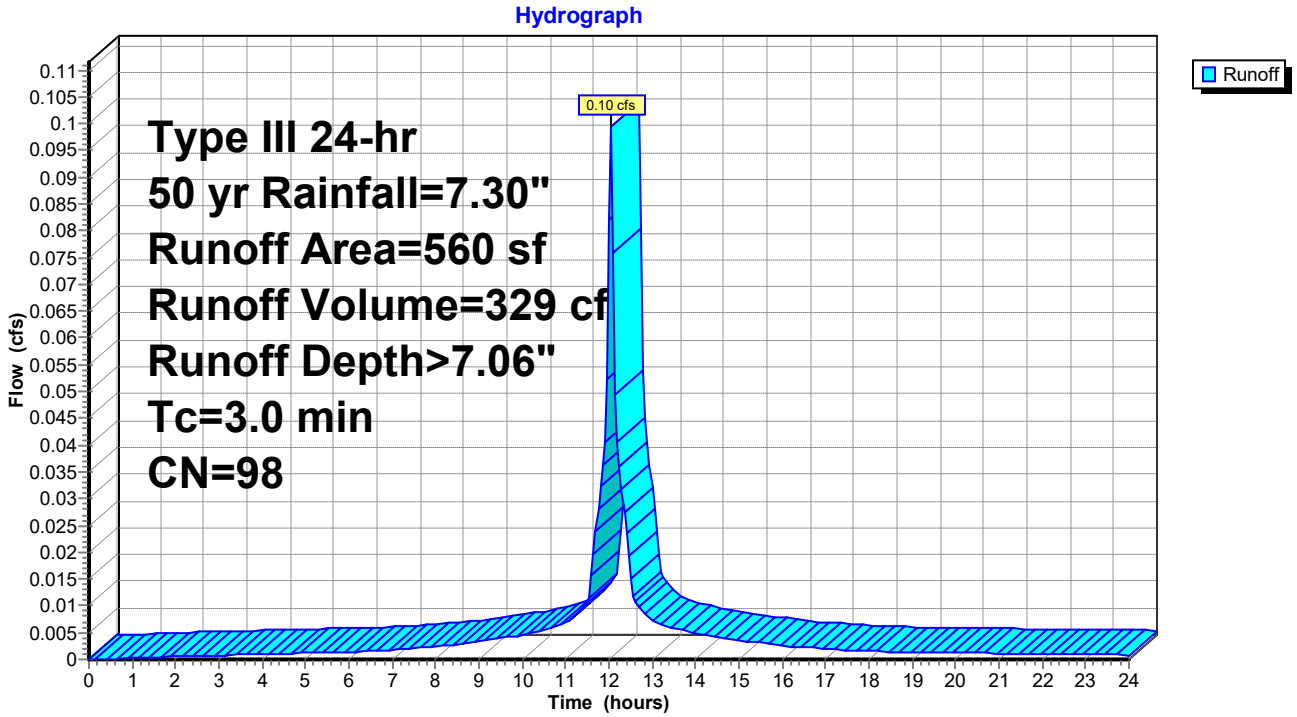
Runoff = 0.10 cfs @ 12.05 hrs, Volume= 329 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	560	98	Pool
	560		100.00% Impervious Area

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

Subcatchment PSA: Pool Surface Area



Summary for Subcatchment XC: Existing Conditions Runoff

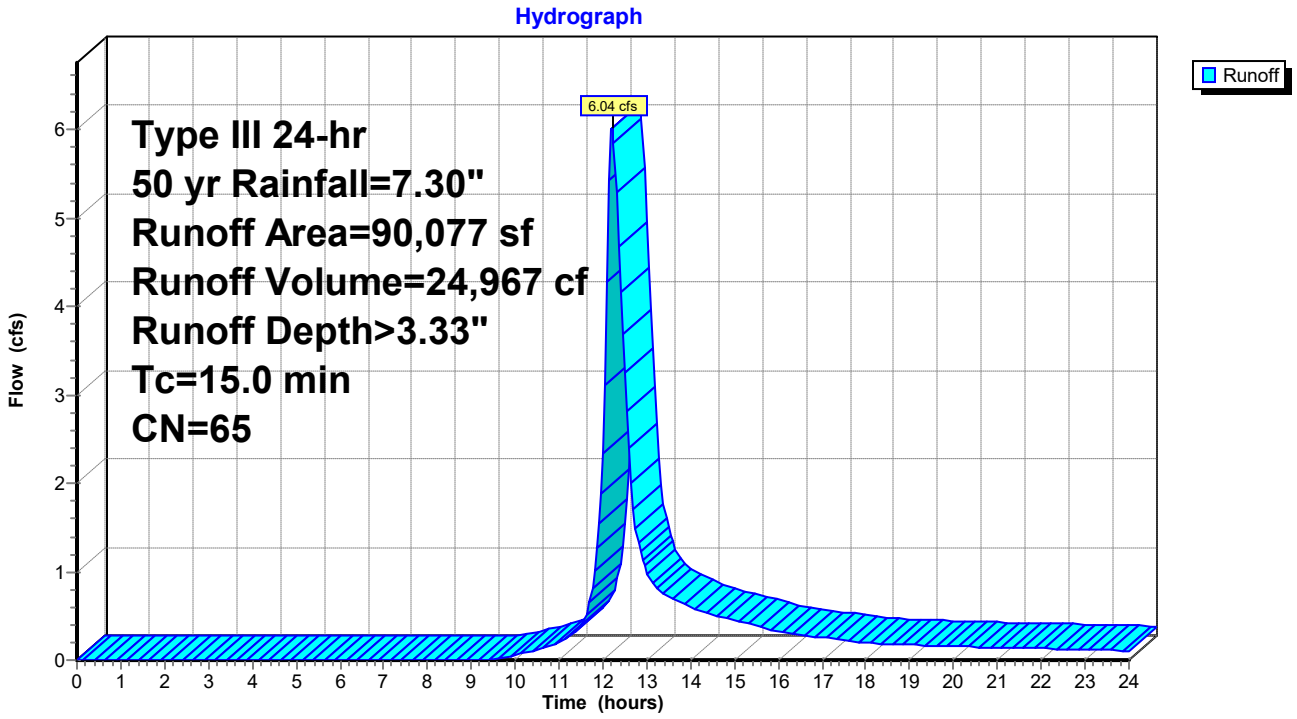
Runoff = 6.04 cfs @ 12.21 hrs, Volume= 24,967 cf, Depth> 3.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	3,080	98	Building
*	3,372	98	Driveway
*	1,162	98	Patio/Walks
*	2,996	89	<50% Grass cover, Poor, HSG D (Wetlands)
	79,467	61	>75% Grass cover, Good, HSG B
	90,077	65	Weighted Average
	82,463		91.55% Pervious Area
	7,614		8.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry, Good Condition Lawn**

Subcatchment XC: Existing Conditions Runoff



Summary for Pond DB1: Upper Permeable Patio

Inflow Area = 2,275 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.37 cfs @ 12.09 hrs, Volume= 1,338 cf
Outflow = 0.08 cfs @ 12.50 hrs, Volume= 1,338 cf, Atten= 79%, Lag= 24.8 min
Discarded = 0.08 cfs @ 12.50 hrs, Volume= 1,338 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 459.72' @ 12.50 hrs Surf.Area= 1,600 sf Storage= 298 cf

Plug-Flow detention time= 19.3 min calculated for 1,338 cf (100% of inflow)
Center-of-Mass det. time= 19.2 min (761.2 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1	459.25'	320 cf	**Permeable Patio Crushed Stone (Conic)** Listed below (Recalc) 800 cf Overall x 40.0% Voids
#2	459.75'	800 cf	**Permeable Patio Open Storage (Conic)** Listed below (Recalc)
		1,120 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
459.25	1,600	0	0	1,600
459.75	1,600	800	800	1,671

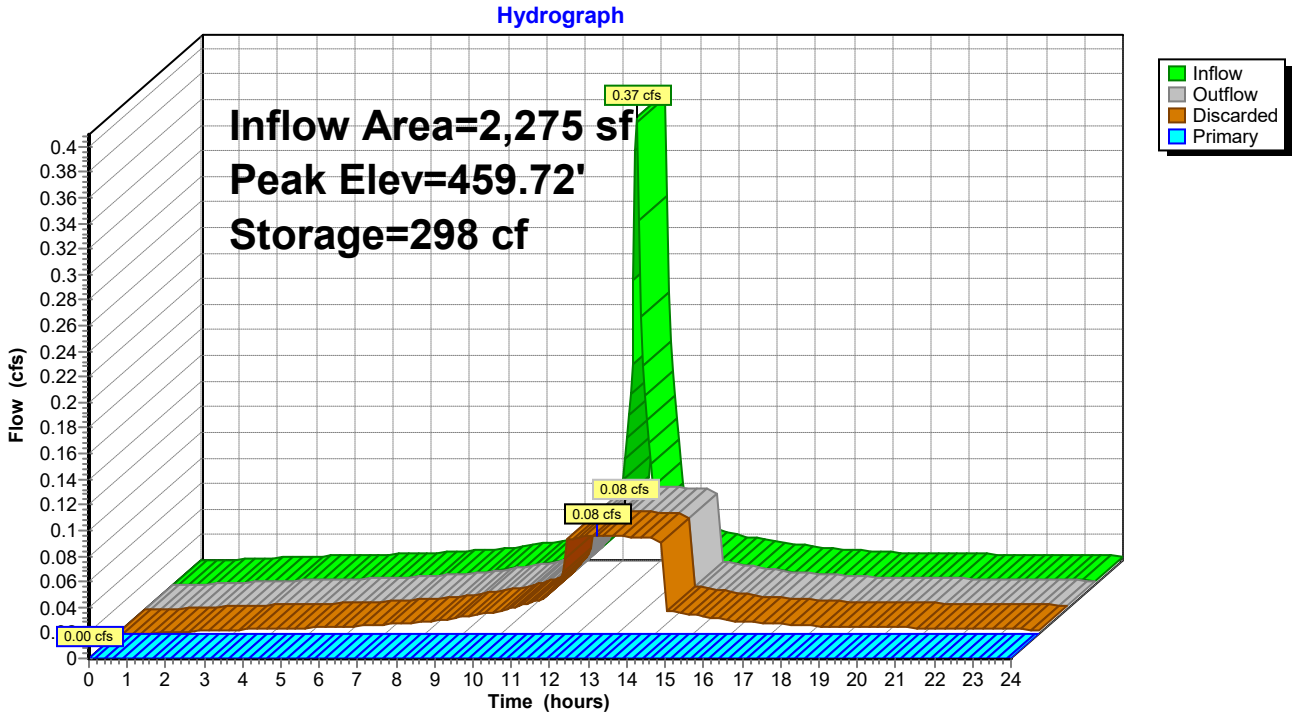
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
459.75	1,600	0	0	1,600
460.25	1,600	800	800	1,671

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	**25.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Discarded	459.25'	**2.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.08 cfs @ 12.50 hrs HW=459.72' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=459.25' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DB1: Upper Permeable Patio



Stage-Area-Storage for Pond DB1: Upper Permeable Patio

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
459.25	1,600	0
459.26	1,601	6
459.27	1,603	13
459.28	1,604	19
459.29	1,606	26
459.30	1,607	32
459.31	1,609	38
459.32	1,610	45
459.33	1,611	51
459.34	1,613	58
459.35	1,614	64
459.36	1,616	70
459.37	1,617	77
459.38	1,618	83
459.39	1,620	90
459.40	1,621	96
459.41	1,623	102
459.42	1,624	109
459.43	1,626	115
459.44	1,627	122
459.45	1,628	128
459.46	1,630	134
459.47	1,631	141
459.48	1,633	147
459.49	1,634	154
459.50	1,635	160
459.51	1,637	166
459.52	1,638	173
459.53	1,640	179
459.54	1,641	186
459.55	1,643	192
459.56	1,644	198
459.57	1,645	205
459.58	1,647	211
459.59	1,648	218
459.60	1,650	224
459.61	1,651	230
459.62	1,652	237
459.63	1,654	243
459.64	1,655	250
459.65	1,657	256
459.66	1,658	262
459.67	1,660	269
459.68	1,661	275
459.69	1,662	282
459.70	1,664	288
459.71	1,665	294
459.72	1,667	301
459.73	1,668	307
459.74	1,669	314
459.75	3,271	320
459.76	3,272	336
459.77	3,274	352
459.78	3,275	368
459.79	3,277	384
459.80	3,278	400
459.81	3,279	416
459.82	3,281	432
459.83	3,282	448
459.84	3,284	464
459.85	3,285	480
459.86	3,286	496
459.87	3,288	512
459.88	3,289	528
459.89	3,291	544
459.90	3,292	560
459.91	3,294	576
459.92	3,295	592
459.93	3,296	608
459.94	3,298	624
459.95	3,299	640
459.96	3,301	656
459.97	3,302	672
459.98	3,304	688
459.99	3,305	704
460.00	3,306	720
460.01	3,308	736
460.02	3,309	752
460.03	3,311	768
460.04	3,312	784
460.05	3,313	800
460.06	3,315	816
460.07	3,316	832
460.08	3,318	848
460.09	3,319	864
460.10	3,321	880
460.11	3,322	896
460.12	3,323	912
460.13	3,325	928
460.14	3,326	944
460.15	3,328	960
460.16	3,329	976
460.17	3,330	992
460.18	3,332	1,008
460.19	3,333	1,024
460.20	3,335	1,040
460.21	3,336	1,056
460.22	3,338	1,072
460.23	3,339	1,088
460.24	3,340	1,104
460.25	**3,342**	**1,120**

Summary for Pond DB2: Lower Permeable Patio

Inflow Area = 1,600 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.26 cfs @ 12.09 hrs, Volume= 941 cf
Outflow = 0.06 cfs @ 12.47 hrs, Volume= 941 cf, Atten= 77%, Lag= 23.3 min
Discarded = 0.06 cfs @ 12.47 hrs, Volume= 941 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 457.89' @ 12.47 hrs Surf.Area= 1,250 sf Storage= 193 cf

Plug-Flow detention time= 15.6 min calculated for 941 cf (100% of inflow)
Center-of-Mass det. time= 15.5 min (757.5 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1	457.50'	250 cf	**Permeable Patio Crushed Stone (Conic)** Listed below (Recalc) 625 cf Overall x 40.0% Voids
#2	458.00'	625 cf	**Permeable Patio Open Storage (Conic)** Listed below (Recalc)
		875 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
457.50	1,250	0	0	1,250
458.00	1,250	625	625	1,313

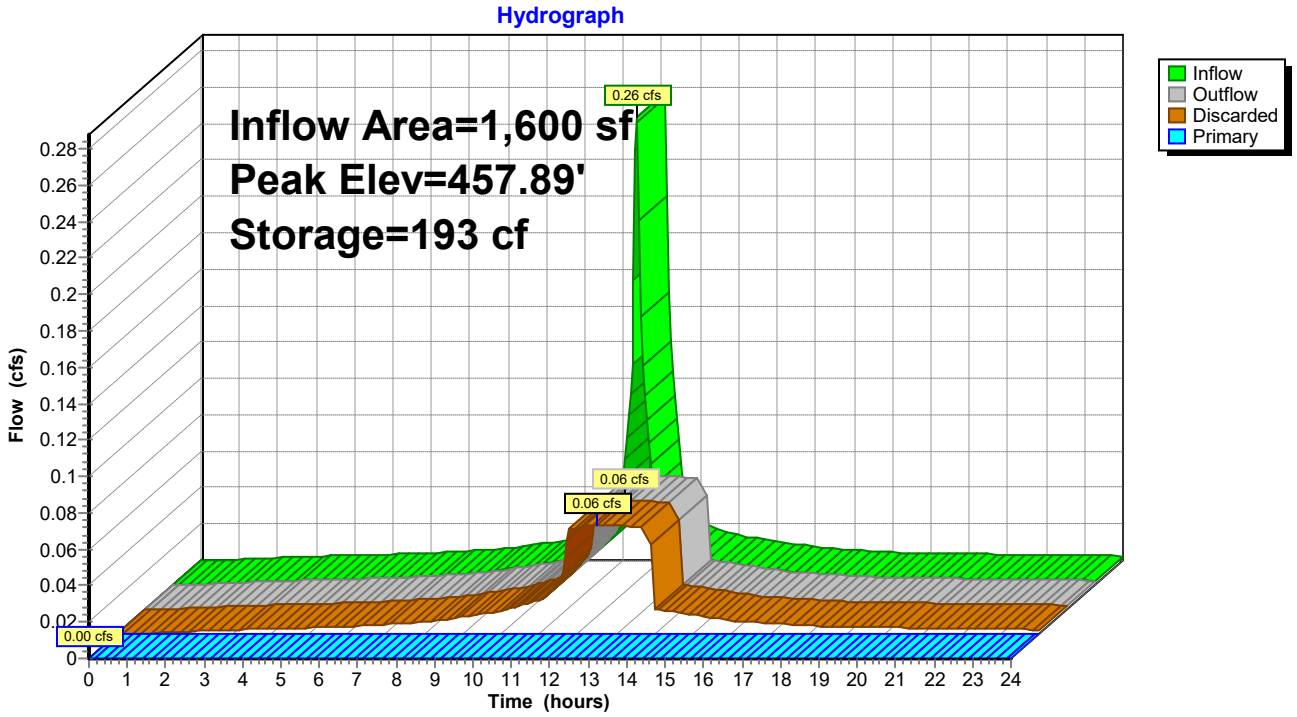
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	1,250	0	0	1,250
458.50	1,250	625	625	1,313

Device	Routing	Invert	Outlet Devices
#1	Primary	458.25'	**57.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Discarded	457.50'	**2.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.06 cfs @ 12.47 hrs HW=457.89' (Free Discharge)
2=Exfiltration (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=457.50' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond DB2: Lower Permeable Patio



Stage-Area-Storage for Pond DB2: Lower Permeable Patio

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
457.50	1,250	0
457.51	1,251	5
457.52	1,253	10
457.53	1,254	15
457.54	1,255	20
457.55	1,256	25
457.56	1,258	30
457.57	1,259	35
457.58	1,260	40
457.59	1,261	45
457.60	1,263	50
457.61	1,264	55
457.62	1,265	60
457.63	1,266	65
457.64	1,268	70
457.65	1,269	75
457.66	1,270	80
457.67	1,271	85
457.68	1,273	90
457.69	1,274	95
457.70	1,275	100
457.71	1,276	105
457.72	1,278	110
457.73	1,279	115
457.74	1,280	120
457.75	1,281	125
457.76	1,283	130
457.77	1,284	135
457.78	1,285	140
457.79	1,286	145
457.80	1,288	150
457.81	1,289	155
457.82	1,290	160
457.83	1,291	165
457.84	1,293	170
457.85	1,294	175
457.86	1,295	180
457.87	1,296	185
457.88	1,298	190
457.89	1,299	195
457.90	1,300	200
457.91	1,301	205
457.92	1,303	210
457.93	1,304	215
457.94	1,305	220
457.95	1,306	225
457.96	1,308	230
457.97	1,309	235
457.98	1,310	240
457.99	1,311	245
458.00	2,563	250
458.01	2,564	262
458.02	2,565	275
458.03	2,566	287
458.04	2,568	300
458.05	2,569	313
458.06	2,570	325
458.07	2,571	337
458.08	2,573	350
458.09	2,574	362
458.10	2,575	375
458.11	2,576	388
458.12	2,578	400
458.13	2,579	412
458.14	2,580	425
458.15	2,581	437
458.16	2,583	450
458.17	2,584	463
458.18	2,585	475
458.19	2,586	487
458.20	2,588	500
458.21	2,589	512
458.22	2,590	525
458.23	2,591	538
458.24	2,593	550
458.25	2,594	563
458.26	2,595	575
458.27	2,597	587
458.28	2,598	600
458.29	2,599	613
458.30	2,600	625
458.31	2,602	638
458.32	2,603	650
458.33	2,604	662
458.34	2,605	675
458.35	2,607	688
458.36	2,608	700
458.37	2,609	713
458.38	2,610	725
458.39	2,612	737
458.40	2,613	750
458.41	2,614	763
458.42	2,615	775
458.43	2,617	788
458.44	2,618	800
458.45	2,619	812
458.46	2,620	825
458.47	2,622	838
458.48	2,623	850
458.49	2,624	863
458.50	**2,625**	**875**

Summary for Pond PS: Pool Storage Below Overflow

Inflow Area = 560 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.10 cfs @ 12.05 hrs, Volume= 329 cf
Outflow = 0.06 cfs @ 12.20 hrs, Volume= 145 cf, Atten= 43%, Lag= 9.2 min
Primary = 0.06 cfs @ 12.20 hrs, Volume= 145 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 458.00' @ 12.20 hrs Surf.Area= 560 sf Storage= 186 cf

Plug-Flow detention time= 301.0 min calculated for 144 cf (44% of inflow)
Center-of-Mass det. time= 153.6 min (893.0 - 739.5)

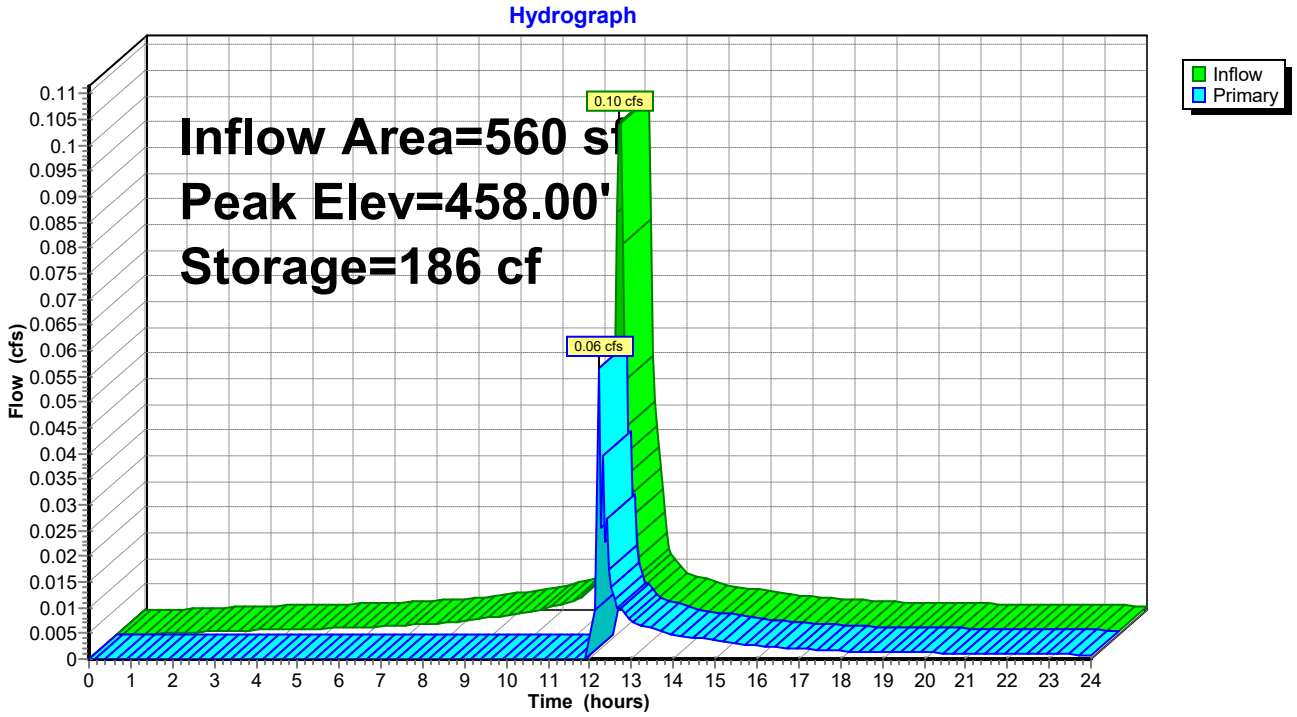
Volume	Invert	Avail.Storage	Storage Description
#1	457.67'	560 cf	**Pool Storage (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
457.67	560	0	0
458.67	560	560	560

Device	Routing	Invert	Outlet Devices
#1	Primary	458.00'	**102.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.02 cfs @ 12.20 hrs HW=458.00' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Weir Controls 0.02 cfs @ 0.13 fps)

Pond PS: Pool Storage Below Overflow



Stage-Area-Storage for Pond PS: Pool Storage Below Overflow

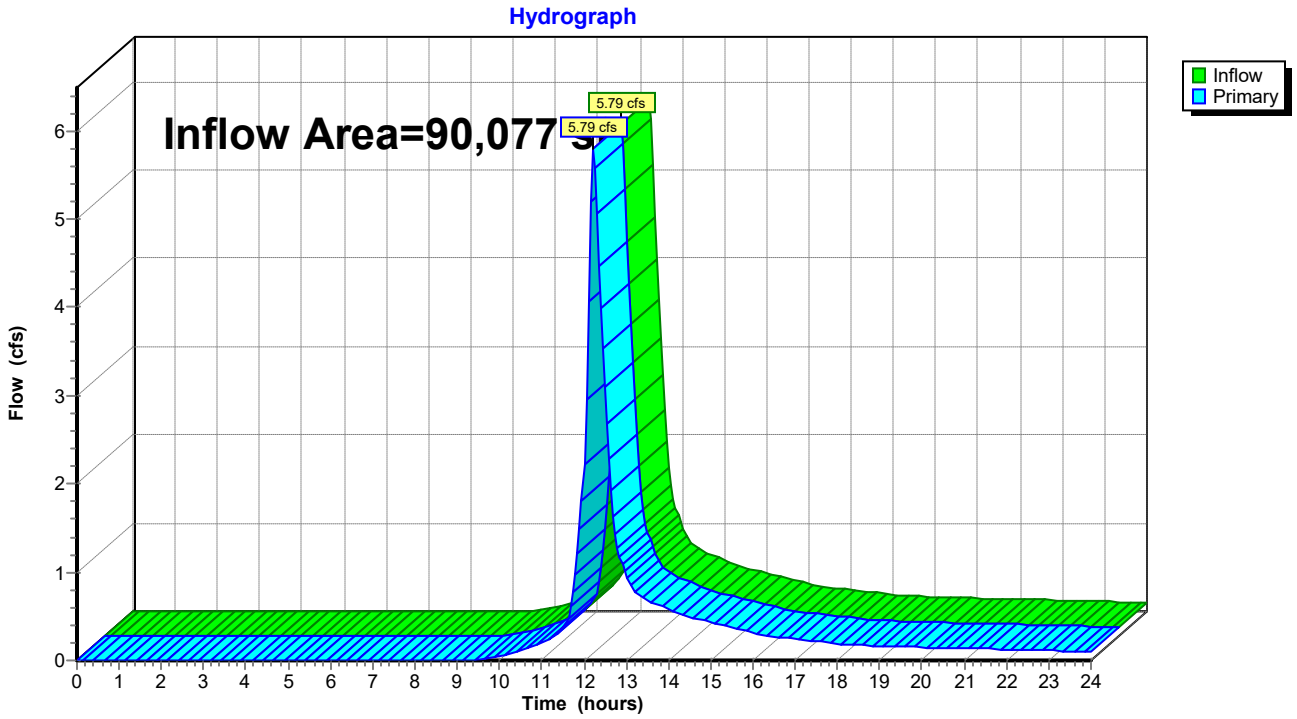
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.67	**560**	0
457.68	560	6
457.69	560	11
457.70	560	17
457.71	560	22
457.72	560	28
457.73	560	34
457.74	560	39
457.75	560	45
457.76	560	50
457.77	560	56
457.78	560	62
457.79	560	67
457.80	560	73
457.81	560	78
457.82	560	84
457.83	560	90
457.84	560	95
457.85	560	101
457.86	560	106
457.87	560	112
457.88	560	118
457.89	560	123
457.90	560	129
457.91	560	134
457.92	560	140
457.93	560	146
457.94	560	151
457.95	560	157
457.96	560	162
457.97	560	168
457.98	560	174
457.99	560	179
458.00	560	185
458.01	560	190
458.02	560	196
458.03	560	202
458.04	560	207
458.05	560	213
458.06	560	218
458.07	560	224
458.08	560	230
458.09	560	235
458.10	560	241
458.11	560	246
458.12	560	252
458.13	560	258
458.14	560	263
458.15	560	269
458.16	560	274
458.17	560	280
458.18	560	286
458.19	560	291
458.20	560	297
458.21	560	302
458.22	560	308
458.23	560	314
458.24	560	319
458.25	560	325
458.26	560	330
458.27	560	336
458.28	560	342
458.29	560	347
458.30	560	353
458.31	560	358
458.32	560	364
458.33	560	370
458.34	560	375
458.35	560	381
458.36	560	386
458.37	560	392
458.38	560	398
458.39	560	403
458.40	560	409
458.41	560	414
458.42	560	420
458.43	560	426
458.44	560	431
458.45	560	437
458.46	560	442
458.47	560	448
458.48	560	454
458.49	560	459
458.50	560	465
458.51	560	470
458.52	560	476
458.53	560	482
458.54	560	487
458.55	560	493
458.56	560	498
458.57	560	504
458.58	560	510
458.59	560	515
458.60	560	521
458.61	560	526
458.62	560	532
458.63	560	538
458.64	560	543
458.65	560	549
458.66	560	554
458.67	560	**560**

Summary for Link OR: Overall Runoff

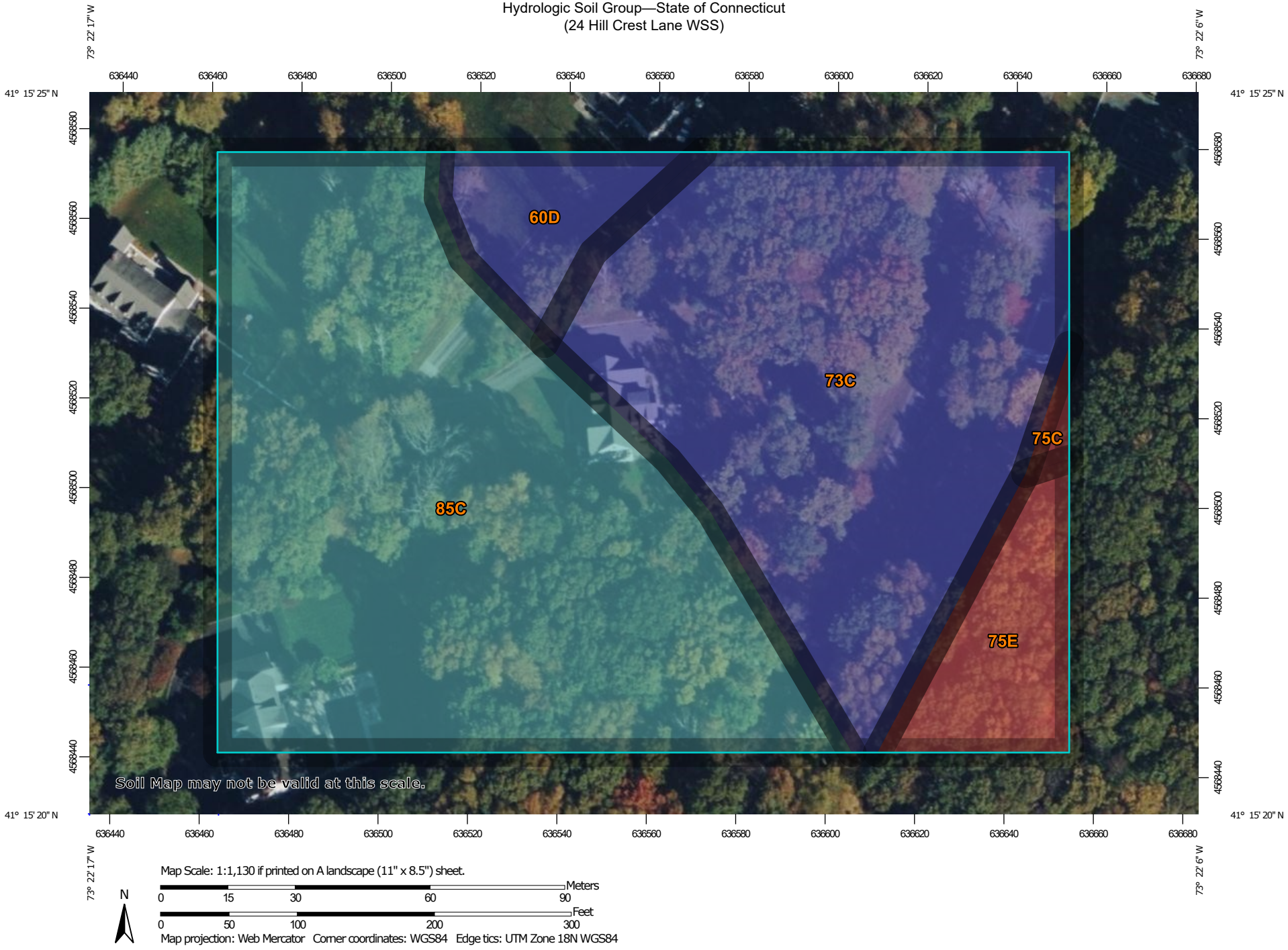
Inflow Area = 90,077 sf, 13.01% Impervious, Inflow Depth > 3.18" for 50 yr event
Inflow = 5.79 cfs @ 12.21 hrs, Volume= 23,882 cf
Primary = 5.79 cfs @ 12.21 hrs, Volume= 23,882 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link OR: Overall Runoff



Hydrologic Soil Group—State of Connecticut
(24 Hill Crest Lane WSS)



Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

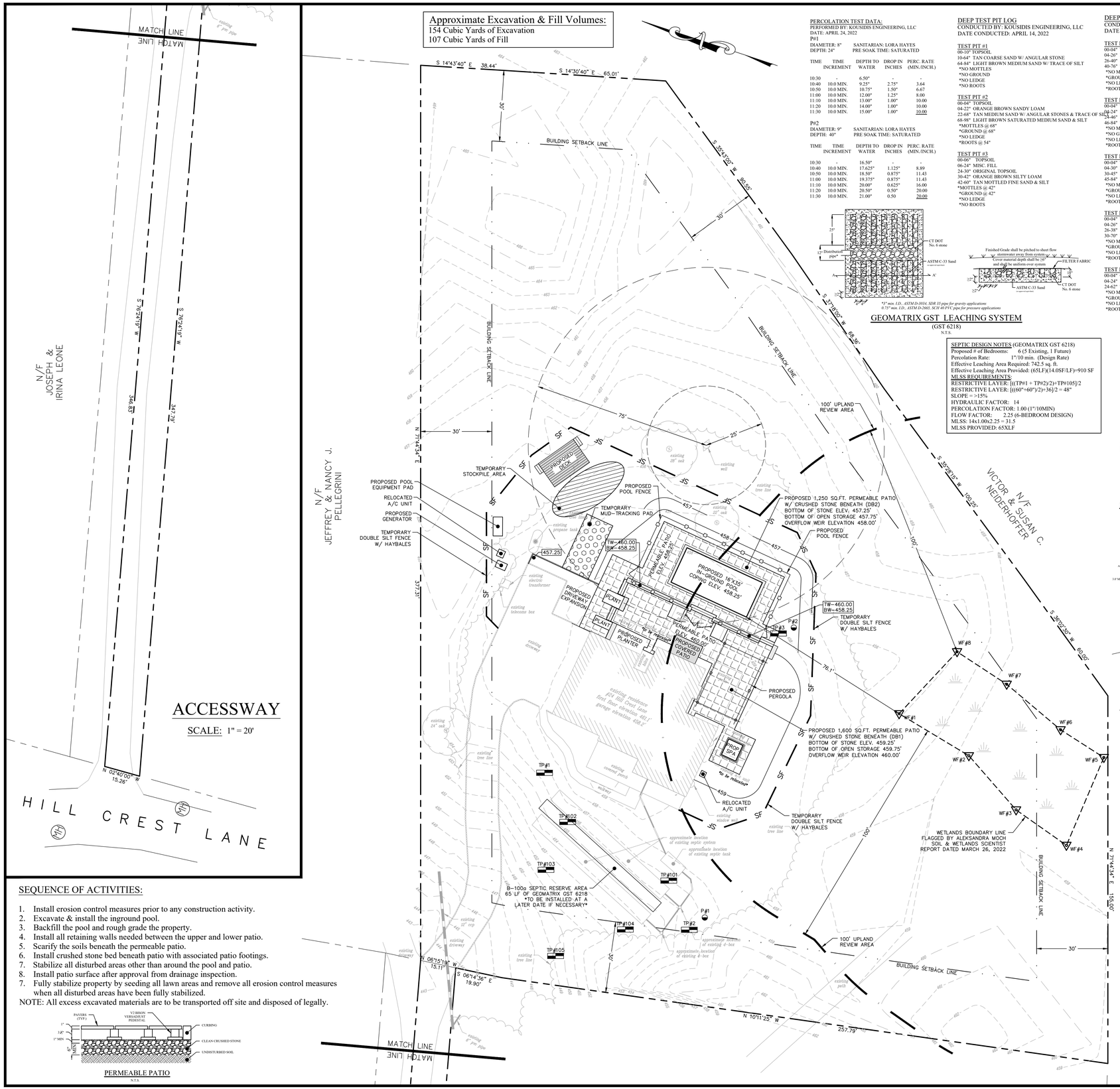
Meters
0 15 30 60 90

Feet
0 50 100 200 300

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
60D	Canton and Charlton soils, 15 to 25 percent slopes	B	0.3	5.2%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	2.4	38.2%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	D	0.0	0.5%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	D	0.4	6.5%
85C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony	C	3.1	49.7%
Totals for Area of Interest			**6.3**	**100.0%**



ACCESSWAY

SCALE: 1" = 20'

HILL CREST LANE

SEQUENCE OF ACTIVITIES:

1. Install erosion control measures prior to any construction activity.
2. Excavate & install the inground pool.
3. Backfill the pool and rough grade the property.
4. Install all retaining walls needed between the upper and lower patio.
5. Scarify the soils beneath the permeable patio.
6. Install crushed stone bed beneath patio with associated patio footings.
7. Stabilize all disturbed areas other than around the pool and patio.
8. Install patio surface after approval from drainage inspection.
7. Fully stabilize property by seeding all lawn areas and remove all erosion control measures when all disturbed areas have been fully stabilized.

NOTE: All excess excavated materials are to be transported off site and disposed of legally.

PERMEABLE PATIO

N.T.S.

PERCOLATION TEST DATA:

PERFORMED BY: KOUSIDIS ENGINEERING, LLC
DATE: APRIL 24, 2022

P#1
DIAMETER: 8" SANITARIAN: LORA HAYES
DEPTH: 24" PRE SOAK TIME: SATURATED

TIME	TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
10:30		6.50"		
10:40	10.0 MIN.	9.25"	2.75"	3.64
10:50	10.0 MIN.	10.75"	1.50"	6.67
11:00	10.0 MIN.	12.00"	1.25"	8.00
11:10	10.0 MIN.	13.00"	1.00"	10.00
11:20	10.0 MIN.	14.00"	1.00"	10.00
11:30	10.0 MIN.	15.00"	1.00"	10.00

P#2
DIAMETER: 9" SANITARIAN: LORA HAYES
DEPTH: 40" PRE SOAK TIME: SATURATED

TIME	TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
10:30		16.50"		
10:40	10.0 MIN.	17.625"	1.125"	8.89
10:50	10.0 MIN.	18.50"	0.875"	11.43
11:00	10.0 MIN.	19.375"	0.875"	11.43
11:10	10.0 MIN.	20.00"	0.625"	16.00
11:20	10.0 MIN.	20.50"	0.50"	20.00
11:30	10.0 MIN.	21.00"	0.50	20.00

DEEP TEST PIT LOG

CONDUCTED BY: KOUSIDIS ENGINEERING, LLC
DATE CONDUCTED: APRIL 14, 2022

TEST PIT #1
00-10" TOPSOIL
10-64" TAN COARSE SAND W/ ANGULAR STONE
64-84" LIGHT BROWN MEDIUM SAND W/ TRACE OF SILT
*No MOTTLES
*NO GROUND
*NO LEDGE
*NO ROOTS

TEST PIT #2
00-04" TOPSOIL
04-22" ORANGE BROWN SANDY LOAM
22-68" TAN MEDIUM SAND W/ ANGULAR STONES & TRACE OF SILT
68-98" LIGHT BROWN SATURATED MEDIUM SAND & SILT
*MOTTLES @ 68"
*GROUND @ 68"
*NO LEDGE
*ROOTS @ 54"

TEST PIT #3
00-06" TOPSOIL
06-24" MISC. FILL
24-30" ORIGINAL TOPSOIL
30-42" ORANGE BROWN SILTY LOAM
42-60" TAN MOTTLED FINE SAND & SILT
*MOTTLES @ 42"
*GROUND @ 42"
*NO LEDGE
*NO ROOTS

*3" min. I.D., ASTM D-3034, SDR 35 pipe for gravity applications
0.75" min. I.D., ASTM D-3665, SCH 40 PVC pipe for pressure applications

GEOMATRIX GST LEACHING SYSTEM

(GST 6218)

N.T.S.

SEPTIC DESIGN NOTES (GEOMATRIX GST 6218)
Proposed # of Bedrooms: 6 (5 Existing, 1 Future)
Percolation Rate: 1"/10 min. (Design Rate)
Effective Leaching Area Required: 742.5 sq. ft.
Effective Leaching Area Provided: (65LF)(14.0SF/LF)=910 SF
MLSS REQUIREMENTS:
RESTRICTIVE LAYER: [((TP#1 + TP#2)/2)+TP#105]/2
RESTRICTIVE LAYER: [((60"+60")/2)+36]/2 = 48"
SLOPE = >15%
HYDRAULIC FACTOR: 14
PERCOLATION FACTOR: 1.00 (1"/10MIN)
FLOW FACTOR: 2.25 (6-BEDROOM DESIGN)
MLSS: 14x1.00x2.25 = 31.5
MLSS PROVIDED: 65XLF

DEEP TEST PIT LOG

CONDUCTED BY: LAND-TECH CONSULTANTS, INC.
DATE CONDUCTED: APRIL 03, 2008

TEST PIT #101
00-04" TOPSOIL
04-26" RED BROWN SANDY LOAM
26-40" LOOSE SANDY TILL
40-76" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 76"
*NO LEDGE
*ROOTS TO 56"

TEST PIT #102
00-04" TOPSOIL
04-24" RED BROWN SANDY LOAM
24-46" LOOSE SANDY TILL
46-84" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*NO GROUNDWATER
*NO LEDGE
*ROOTS TO 36"

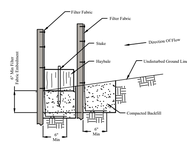
TEST PIT #103
00-04" TOPSOIL
04-30" RED BROWN SANDY LOAM
30-45" LOOSE BROWN SANDY TILL
45-84" TIGHTLY COMPACTED BROWN SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 84"
*NO LEDGE
*ROOTS TO 62"

TEST PIT #104
00-04" TOPSOIL
04-26" RED BROWN SANDY LOAM
26-38" LOOSE BROWN SANDY TILL
30-70" MODERATELY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 76"
*NO LEDGE
*ROOTS TO 54"

TEST PIT #105
00-04" ORGANIC
04-24" RED BROWN SANDY LOAM
24-62" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 36"
*NO LEDGE
*ROOTS TO 28"

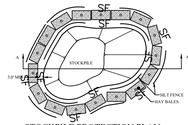
MUD-TRACKING PAD

N.T.S.

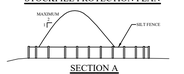


DOUBLE SILT FENCE W/ HAYBALE

N.T.S.



STOCKPILE PROTECTION PLAN



SECTION A

N.T.S.

GENERAL NOTES:

1. ALL SURVEY DATA, BOUNDARY LINES AND TOPOGRAPHY, ARE FROM A "LIMITED BOUNDARY SURVEY ZONING LOCATION SURVEY" PREPARED FOR CHARLES REDLITZ AT 24 HILL CREST LANE, WESTON, CT, PREPARED BY SILVA LAND SURVEYING, LLC, DATED JULY 20, 2021.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE TOWN OF WESTON REQUIREMENTS, THE STATE OF CONNECTICUT BASIC BUILDING CODE AND THE CONNECTICUT GUIDELINES FOR SOIL AND EROSION AND SEDIMENT CONTROL.
3. INFORMATION OF EXISTING UTILITIES HAS BEEN COMPILED FROM VARIOUS SOURCES INCLUDING UTILITY COMPANY RECORDS, MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES.
4. THE PROPERTY WILL BE SERVICED BY WELL WATER AND PRIVATE SEPTIC SYSTEM. NO KNOWN SEPTIC SYSTEMS AND STORM DRAIN SYSTEMS WITHIN 50' OF THE PROPOSED SEPTIC SYSTEM. NO KNOWN WELLS ARE LOCATED WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY EXCAVATION SAFEGUARDS, NECESSARY BARRICADES, FLAGMEN, ETC., FOR TRAFFIC CONTROL AND SITE SAFETY. ALL WORK SHALL BE DONE IN ACCORDANCE WITH OSHA REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH OSHA REQUIREMENTS.
6. REMOVE STUMPS AND BRUSH FROM SITE, OR CHIP AND USE DURING LANDSCAPING. DO NOT BURY STUMPS ON SITE.
7. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE PLANS UNLESS CHANGES HAVE BEEN APPROVED IN WRITING BY THE DESIGN ENGINEER PRIOR TO THE WORK BEING DONE.
8. ALL DISTURBED AREAS SHALL BE MULCHED AND SEEDED AS SOON AS POSSIBLE.
9. AREAS OF ASPHALT PAVEMENT THAT ARE DISTURBED BY THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED IN ACCORDANCE WITH THE ASPHALT TRENCH REPAIR DETAIL. THE FINISHED GRADE OF ASPHALT PAVING SHALL BLEND TO EXISTING GRADE AND THE EDGE OF THE CONCRETE PAVEMENT SMOOTHLY WITH NO SLOPES EXCEEDING 4%.
10. A MINIMUM OF 6" OF CRUSHED STONE MUST BE INSTALLED UNDER ALL EXTERIOR PORCHES AND STAIRS.

EARTHWORK & GRADING:

11. GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
12. PROPOSED EARTH SLOPES SHALL BE NO STEEPER THAN 5:1 (HORZ.:VERT.), UNLESS OTHERWISE DEPICTED ON SITE PLAN.
13. GENERAL FILL BEYOND PAVED AREAS SHALL BE FREE OF BRUSH RUBBISH, STUMPS. FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95 % OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D698. AFTER COMPACTING, THE FILL SHALL BE 4" BELOW THE REQUIRED GRADE AS SHOWN ON THE PLAN.
14. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2" TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
15. FILL OR TOPSOIL SHALL NOT BE PLACED NOR COMPACTED WHILE IN A FROZEN OR MUDDY CONDITION OR WHILE SUBGRADE IS FROZEN.
16. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

STORM SEWER SYSTEMS:

17. ALL PIPE SHALL BE INSTALLED STRAIGHT AND AT THE VERTICAL AND HORIZONTAL ALIGNMENT SHOWN. NO 90° BENDS IN ALL PIPES.
18. MINIMUM COVER ON ALL PIPES SHALL BE TWO FEET (2') UNLESS OTHERWISE NOTED.
19. ALL POLY VINYL CHLORIDE PIPE (PVCP) SHALL BE SDR 35 WITH RUBBER JOINTS AND MEET THE REQUIREMENTS ASTM D3 AND D3212.
20. ALL AREA DRAINS SHALL HAVE A 2' SUMP.
21. CONTACT THE DESIGN ENGINEER THREE DAYS PRIOR TO EXCAVATING FOR THE INFILTRATION SYSTEM. DURING THE EXCAVATION, THE DESIGN ENGINEER MAY REVISE THE ELEVATIONS OF THE SYSTEM IF FIELD CONDITIONS DICTATE.
22. THE ENGINEER OF RECORD IS REQUIRED TO WITNESS THE INSTALLATION OF THE DRAINAGE SYSTEM PRIOR TO BACKFILLING.
23. DIRECT THE PERMEABLE PATIO TO THE PROPOSED PATIO STORAGE AS DEPICTED.

SEDIMENT & EROSION CONTROLS:

24. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE SITE ENGINEER PRIOR TO ANY LAND DISTURBANCE. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENT MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE SITE ENGINEER.
25. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURES WITHOUT PRIOR PERMISSION FROM THE SITE ENGINEER.
26. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC OR PRIVATE ROADS. ALL MATERIALS DEPOSITED ONTO SUCH ROADS SHALL BE REMOVED AS SOON AS POSSIBLE.
27. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY REMOVED WITH PRIOR PERMISSION FROM THE SITE ENGINEER.
28. ALL DISTURBED AREAS WITH A SLOPE STEEPER THAN 3:1 SHALL BE STABILIZED WITH SOD OR SEED AND ANCHORED STRAW MULCH OR OTHER APPROVED STABILIZATION MEASURE, AS SOON AS POSSIBLE BUT NO LATER THAN 5 CALENDAR DAYS.
29. SEDIMENT TRAPS AND BASINS SHALL NOT BE CONSTRUCTED WITHIN 25' OF AN EXISTING FOUNDATION OR ONE THAT IS UNDER CONSTRUCTION.
30. SEDIMENT REMOVED FROM TRAPS, SILTATION FENCES OR BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS BUT NOT WITHIN A FLOODPLAIN, WETLANDS OR TREE-SAVE AREAS.
31. ALL WATER REMOVED FROM EXCAVATED AREAS SHALL BE PASSED THROUGH APPROVED DEWATERING PRACTICES OR PUMPED TO A SEDIMENT BASIN PRIOR TO DISCHARGE TO A FUNCTIONAL STORM DRAIN SYSTEM OR TO STABLE GROUND SURFACE.
32. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES THE CONTRACTOR SHALL STABILIZE AND HAVE ESTABLISHED PERMANENT STABILIZATION FOR ALL DISTURBED AREAS USING SOD OR AN APPROVED SIX MIXTURE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON MUST BE STABILIZED WITH PERMANENT GROWTH AS SOON AS POSSIBLE. WHEN PROPERTY IS BROUGHT TO FINISHED GRADES DURING THE WINTER MONTHS WHEN PERMANENT STABILIZATION IS IMPRACTICAL THEN AN APPROVED TEMPORARY STABILIZATION SHALL BE DONE UNTIL THE SPRING MONTHS WHERE PERMANENT STABILIZATION IS POSSIBLE.

SEWAGE DISPOSAL SYSTEM NOTES:

1. THE PROPOSED SEWAGE DISPOSAL SYSTEMS SHALL CONFORM TO SECTIONS 19-13-B103A TO 19-13-B103F OF THE CONNECTICUT STATE HEALTH CODE.
2. THE PROPOSED SOIL LINES SHALL BE AS DEPICTED ON THE PLAN.
3. THE PROPOSED SEPTIC TANK SHALL BE A TWO-COMPARTMENT TANK. THE TANK SHALL BE WATERTIGHT AND BE SO CERTIFIED BY THE MANUFACTURER. THE SEPTIC TANK SHALL BE AS MANUFACTURED BY EASTERN PRECAST, OR EQUIVALENT AS APPROVED BY THE ENGINEER.
4. TO PREVENT LEAKAGE, THE CONTRACTOR SHALL MORTAR ALL INLET AND OUTLET PIPES FROM THE SEPTIC TANK AND DISTRIBUTION BOXES ONCE PIPES HAVE BEEN INSTALLED.
5. ALL SOLID EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PVC PLASTIC PIPE (ASTM D3034) SDR-35 WITH RUBBER GASKET, BELL AND SPIGOT.
6. ALL PERFORATED EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PERFORATED PVC PLASTIC PIPE (ASTM D2729) WITH BELL AND SPIGOT, NO GASKET.
7. ALL DISTRIBUTION BOXES SHALL BE AS MANUFACTURED BY EASTERN PRECAST OR AN APPROVED EQUAL.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL STAKE THE AREA OF THE PROPOSED SEWAGE DISPOSAL SYSTEM AND THE ADJACENT PROPERTY LINES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ASPETUCK HEALTH DISTRICT WHEN STAKING HAS BEEN COMPLETED SO THAT AN INSPECTION OF THE STAKING CAN BE MADE.
9. AFTER THE SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION OR GRADE AS SHOWN ON THE PLAN, TOPSOILED, FINE RAKED AND SEEDED.
10. THIS DESIGN CONFORMS TO APPLICABLE CODES AND ACCEPTED PRACTICE. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED.
11. THE SEPTIC DESIGN DOES NOT ACCOUNT FOR LARGE TUBS WITH CAPACITY OVER 99 GALLONS.
12. THE RECORD ENGINEER MUST PREPARE THE "SEPTIC AS-BUILT PLAN", THUS THE ENGINEER MUST BE NOTIFIED TO INSPECT ALL ASPECTS OF THE NEW SEPTIC SYSTEM PREPARATION AND INSTALLATION.

SELECT FILL NOTES:

1. SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER.
2. SELECT FILL EXCEEDING 6% PASSING THE #200 SIEVE BASED ON A WET SIEVE TEST CANNOT BE APPROVED BY THE DESIGN ENGINEER. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
3. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE. NOTE: THIS IS THE GRAVEL PORTION OF THE SAMPLE.
4. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
5. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

PERCENT PASSING SIEVE SIZE

	WET SIEVE	DRY SIEVE
#4	100	100
#10	70 - 100	70 - 100
#40	10 - 50 *	10 - 75
#100	0 - 20	0 - 5
#200	0 - 5	0 - 2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
SELECT FILL THAT DOES NOT MEET THE DRY SIEVE GRADATION CRITERIA BUT MEETS THE WET SIEVE GRADATION CRITERIA IS ACCEPTABLE. SIEVE TESTING OF SELECT FILL IS REQUIRED FOR LARGE (2,000 GPD OR GREATER) SYSTEMS WHENEVER THE LEACHING SYSTEM IS LOCATED TOTALLY IN SELECT FILL. THE LOCAL DIRECTOR OF HEALTH MAY REQUIRE SIEVE TESTING OF SELECT FILL ON LESS THAN 2,000 GPD SEWAGE SYSTEMS IN ACCORDANCE WITH PHC SECTION 19-13-B103E (D) (6).

SITE DEVELOPMENT PLAN

24 HILL CREST LANE

WESTON, CT

Prepared for

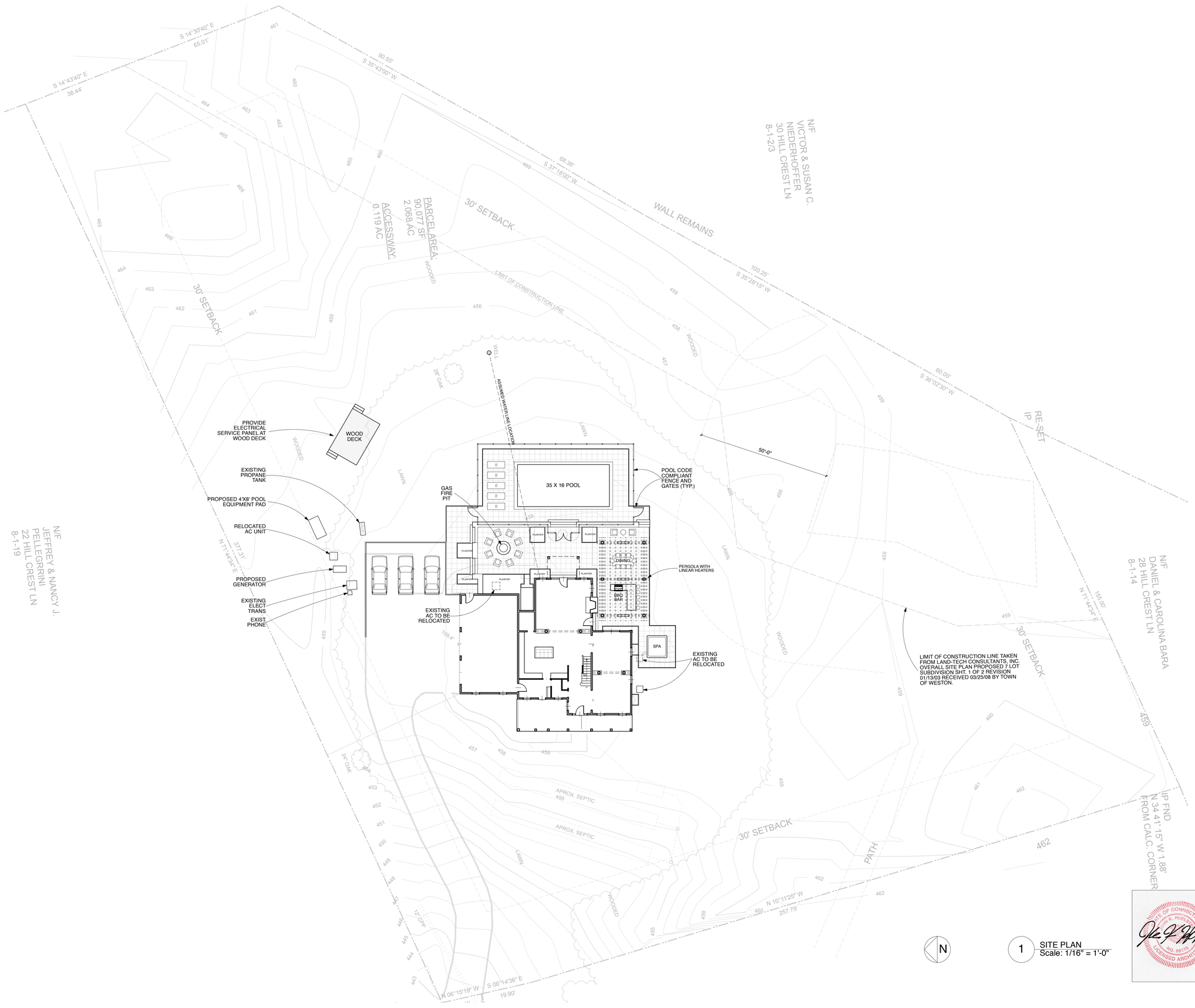
CHRIS REDLITZ

STATE OF CONNECTICUT JIMMY KOUSIDIS LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 20' (0, 20, 40)

DATED: 04/14/2022
JOB NO: CR22-1
SHEET NO: 1 of 1

KOUSIDIS ENGINEERING, LLC
Land Development Consultants and Site Design
10-B First Street, Norwalk, CT 06855
P: 203-557-8943 F: 203-557-8944
E: jim@kousidisengineering.com
Web: www.kousidisengineering.com



N

1 SITE PLAN
Scale: 1/16" = 1'-0"

HUELSTER DESIGN STUDIO

Architecture
Landscape Architecture
Furniture Design

Huelster Design Studio, LLC
38 Compo Road North
Westport, CT 06880

203.227.5334 t
huelsterdesign.com

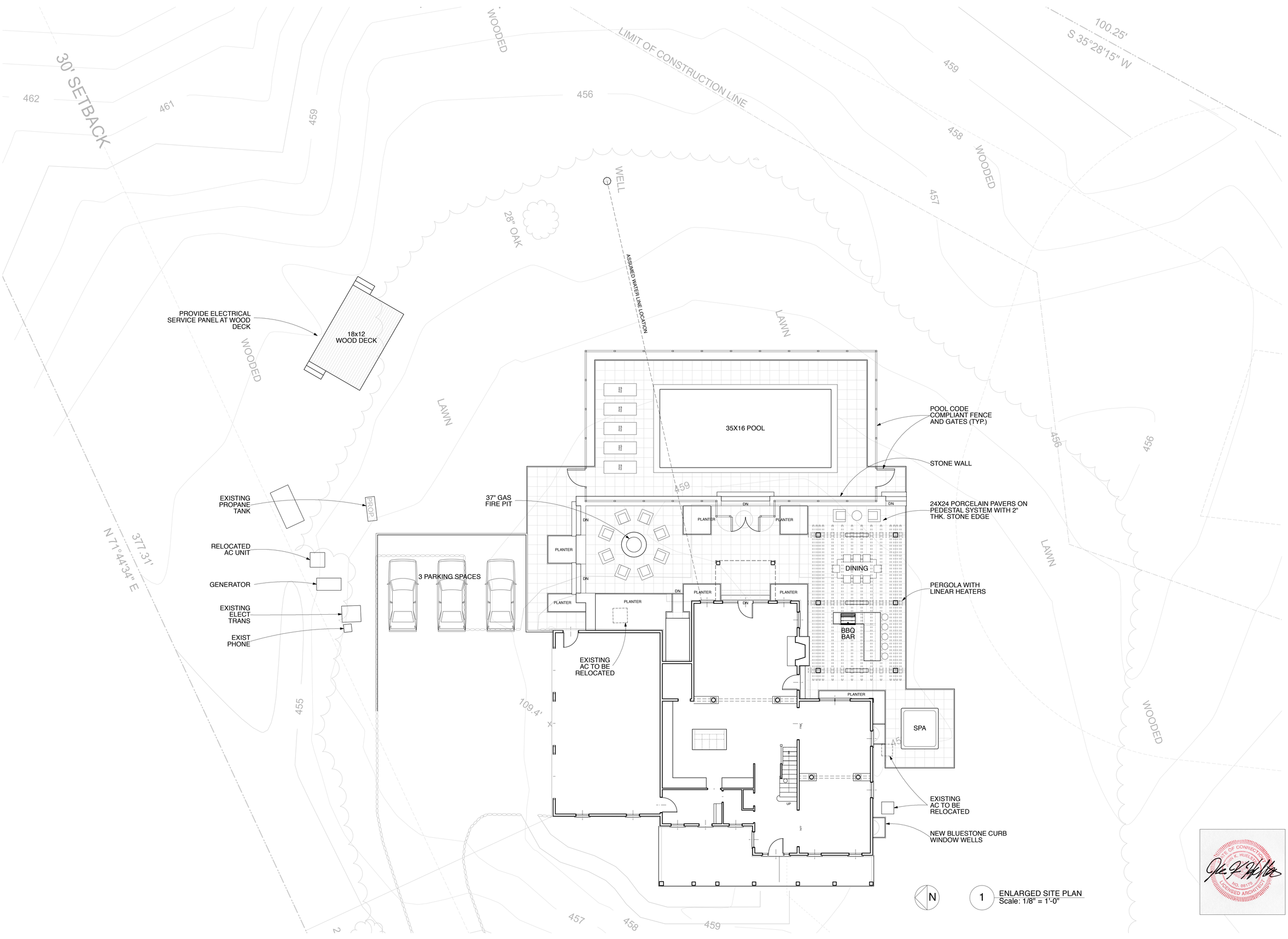
Site Design and Renovations to:
THE REDLITZ / PARENTI RESIDENCE
24 Hillcrest Lane
Weston, Connecticut

Project No.	520
Issue Date:	04/12/22
Revision Dates:	
04/12/22 CONSRV PERMIT	
04/11/22 SITE TO KE & SLS	
04/08/22 SITE REVIEW	
04/07/22 SITE REVIEW	
04/01/22 DWG TO WAGNER	
03/10/22 MTG W/ TOWN	
Drawn by:	JKH

Drawing Title:
SITE PLAN

Sheet No.

A1.0



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03/10/22 MTG W/ TOWN	
Drawn by:	JKH

Drawing Title:
ENLARGED SITE PLAN

Sheet No.

A1.1

SCALE: 1" = 30'

LOCATION MAP
SCALE: 1"=800'

NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADMENDED.
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8. THIS PARCEL IS DEPICTED AS LOT 18 BLOCK 1 ON ASSESSOR'S MAP # 8.
9. ELEVATIONS SHOWN HEREON ARE BASED ON NAVD88 DATUM.

MAP REFERENCES:

1. "SUBDIVISION MAP PREPARED FOR HILL CREST SUBDIVISION" SCALE:1"=50', 11-18-02 REV. 5-15-2003, WLR #3604 I.

WESTON ZONE TABLE (DISTRICT R-2A)

STANDARDS	REQUIRED	PROPOSED
MIN. LOT AREA	2 AC.	2.068 AC
MIN. RECTANGLE	170' X 200'	> 170' X 200'
MIN. LOT FRONTAGE	170'	REAR LOT
MAX. BLDG. COVERAGE	15 %	4.09 %
* SETBACKS:		
FRONT	50' (*30')	> 30'
SIDE	30'	> 30'
REAR	30'	> 30'
WATERCOURSE	50'	76.48' WETLANDS
** MAX. BLDG. HEIGHT	35'	29.17'

* SETBACKS 30' PER REFERENCE MAP # 1, ABOVE.

** oVERAGE GRADE AT BUILDING = 458.74'

LEGEND

PROPERTY LINE	
BUILDING LINE	
EXISTING CONTOUR	
PROPOSED CONTOUR	
EXISTING SPOT ELEV.	100.00
PROPOSED SPOT ELEV	100.00
DEEP HOLE	
SEDIMENT FENCING	SF
STONEWALL	
TREE LINE	

LIMITED/BOUNDARY SURVEY
ZONING LOCATION SURVEY
PROPOSED POOL & SPA SURVEY

OF PROPERTY LOCATED AT
24 HILL CREST LANE
WESTON, CT.
PREPARED FOR
CHRIS REDLITZ

SILVA LAND SURVEYING, LLC
Land Surveying-Land Planning
43 WOODBURY HILL
WOODBURY, CT., 06798
Phone: (203) 263-6776
davethesurveyor@yahoo.com

FB 263-6
SCALE: 1" = 30'
APRIL 9, 2022

SHEET 1 OF 2

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS CORRECT AS NOTED HEREON.

THIS MAP IS NOT VALID UNLESS IT BEARS THE LIVE SIGNATURE AND SEAL OF THE UNDERSIGNED LAND SURVEYOR.

David Laferriere

DAVID L. LAFERRIERE, LS #70072

STATE OF CONNECTICUT · DAVID L. LAFERRIERE · 70072 · LICENSED LAND SURVEYOR

LOCATION MAP
SCALE: 1" = 800'

REF. MAP # 1

MON FND
HELD

N/F
JOSEPH & IRINA LEONE
20 HILL CREST LN
8-1-16

MATCH "A"

S 78°24'19" W
346.83'

15' ACCESSWAY 0.119 AC

S 78°24'19" W
347.79'

ASPHALT DRIVE

MON FND
HELD

HILL CREST LANE

N 00°09'55" W
134.51'

℄
BROKEN
MON FND
HELD

30 0 30 60

LEGEND

PROPERTY LINE	
BUILDING LINE	
EXISTING CONTOUR	
PROPOSED CONTOUR	
EXISTING SPOT ELEV.	100.00
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DAVID L. LAFERRIERE
70072
LICENSED
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(DISTRICT R-2A)

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FRONT	50' (*30')	> 30'
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** MAX. BLDG. HEIGHT	35'	29.17'

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** oVERAGE GRADE AT BUILDING = 458.74'

LEGEND

PROPERTY LINE	
BUILDING LINE	
EXISTING CONTOUR	
PROPOSED CONTOUR	
EXISTING SPOT ELEV.	100.00
PROPOSED SPOT ELEV	100.00
DEEP HOLE	
SEDIMENT FENCING	SF
STONEWALL	
TREE LINE	

LIMITED/BOUNDARY SURVEY
ZONING LOCATION SURVEY
PROPERTY SURVEY

OF PROPERTY LOCATED AT
24 HILL CREST LANE
WESTON, CT.
PREPARED FOR
CHRIS REDLITZ

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davethesurveyor@yahoo.com

FB 263-6
SCALE: 1" = 30'
JULY 20, 2021

SHEET 1 OF 2

30 0 30 60
SCALE: 1" = 30'

REVISIONS: 04-09-2022 REVISED WETLANDS LOCATIONS PER DELINEATION BY ALEKSANDRA MOCH.

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STATE OF CONNECTICUT
DAVID L. LAFERRIERE
#0072
LICENSED
LAND SURVEYOR

LOCATION MAP
SCALE: 1" = 800'

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N/F
JOSEPH & IRINA LEONE
20 HILL CREST LN
8-1-16

MATCH "A"

S 78°24'19" W
346.83'

15' ACCESSWAY 0.119 AC

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ASPHALT DRIVE

MON FND
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HILL CREST LANE

N 00°09'50" W
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℄
BROKEN
MON FND
HELD

LEGEND

PROPERTY LINE	
BUILDING LINE	
EXISTING CONTOUR	
PROPOSED CONTOUR	
EXISTING SPOT ELEV.	100.00
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OF PROPERTY LOCATED AT
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STATE OF CONNECTICUT · DAVID L. LAFERRIERE · 70072 · LICENSED LAND SURVEYOR

David Laferriere

DAVID L. LAFERRIERE, LS #70072

REVISIONS: 04-09-2022 REVISED WETLANDS LOCATIONS PER DELINEATION BY ALEKSANDRA MOCH.

SCALE: 1" = 30' JULY 20, 2021

Kousidis Engineering, LLC
Land Development Consultants & Site Design

DRAINAGE ANALYSIS

LOCATED AT
24 HILL CREST LANE
WESTON, CONNECTICUT

PREPARED FOR
CHRIS REDLITZ

April 14, 2022
Revised: May 13, 2022

Jim Kousidis, P.E.
CT License No. 26830

KOUSIDIS ENGINEERING, LLC, 10-B First Street, Norwalk, CT 06855. P: (203) 557-8943
www.kousidisengineering.com, jim@kousidisengineering.com

1. EXISTING CONDITIONS

This 90,077-sq. ft. residential property is currently developed with a single-family residence, attached garage and driveway. Test pits at the site indicate highly pervious soils that are adequate to accept a subsurface storm drain system. The topography of the property slopes to the south and west. According to the Web Soil Survey website (map and soil table attached) the soils in the subject area consist of Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky, a well-drained soil with a Hydrologic Soil Group "B".

2. PROPOSED CONDITIONS

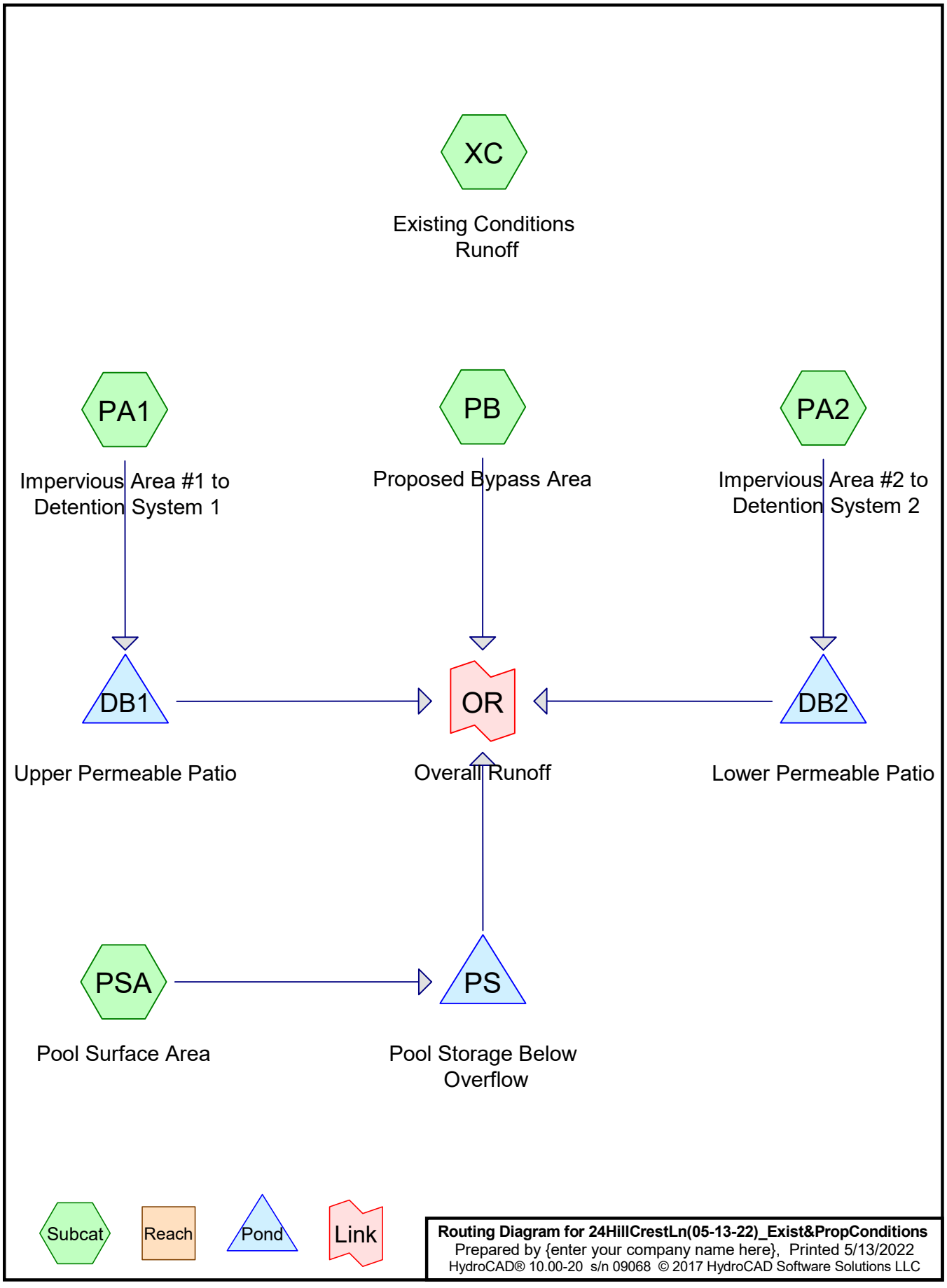
A new development is being proposed for the subject property. The owner is proposing to demolish the existing rear patio and construct a new inground pool with two new permeable patios, a driveway expansion, and a new deck, with associated site improvements. The total proposed impervious surface is 5,035-sq.ft. A stormwater retention system will be installed to satisfy the Town of Weston's requirements of zero increase in runoff for a 24-hour, type III rainfall, 50-year storm event. The new patio area and a portion of the existing roof area must be directed to the stone beds below the proposed permeable patio.

3. DRAINAGE

Under existing conditions, the peak runoff from the site is 6.04 cfs for the 50-year storm. The Town's requirement for zero increase in runoff is satisfied by collecting the new patio area and the . The runoff from impervious surface area #1 generates a peak 50-year flow of 0.65 cfs. The runoff from impervious surface area #2 generates a peak 50-year flow of 0.29 cfs. The overall post conditions runoff is 5.79 cfs. Subsurface drainage system #1 consists of a 1,600 sq.ft. permeable patio with a of crushed stone bed beneath. Subsurface drainage system #2 consists of a 1,250 sq.ft. permeable patio with a crushed stone bed beneath. In addition to the above, the drainage system was checked for the capacity to hold the first flush from all the new impervious surfaces. The runoff volume from 1" of rainfall is (5,035 sq. ft. x 1"/12"/ft. = 419.58 cu. ft.). The holding capacity of the permeable patios is 495 cu.ft. which well exceeds the 1" minimum requirement of pure storage volume.

4. CONCLUSION

The proposed development will increase the amount of impervious area to this site, resulting in higher peak runoff rates. However, with the installation of the proposed stormwater retention systems, the original flow patterns will be maintained and there will be no increase in peak runoff for the 50-year storm event. In addition to controlling stormwater peak runoff, the proposed design incorporates stormwater treatment to control pollution and provide groundwater recharge capacity. The implementation of these techniques and the overall site design layout will result in a finished project that will minimize sediment and erosion impacts during construction and will have no adverse impacts to adjoining properties upon completion.



Routing Diagram for 24HillCrestLn(05-13-22)_Exist&PropConditions
Prepared by {enter your company name here}, Printed 5/13/2022
HydroCAD® 10.00-20 s/n 09068 © 2017 HydroCAD Software Solutions LLC

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 PA1: Impervious Area #1 to Runoff Area=4,045 sf 100.00% Impervious Runoff Depth>7.06"
Tc=6.0 min CN=98 Runoff=0.65 cfs 2,379 cf

Subcatchment PA2: Impervious Area #2 to Runoff Area=1,820 sf 100.00% Impervious Runoff Depth>7.06"
Tc=6.0 min CN=98 Runoff=0.29 cfs 1,070 cf

Subcatchment PB: Proposed Bypass Area Runoff Area=83,652 sf 6.33% Impervious Runoff Depth>3.22"
Tc=15.0 min CN=64 Runoff=5.41 cfs 22,456 cf

Subcatchment PSA: Pool Surface Area Runoff Area=560 sf 100.00% Impervious Runoff Depth>7.06"
Tc=3.0 min CN=98 Runoff=0.10 cfs 329 cf

Subcatchment XC: Existing Conditions Runoff Area=90,077 sf 8.45% Impervious Runoff Depth>3.33"
Tc=15.0 min CN=65 Runoff=6.04 cfs 24,967 cf

Pond DB1: Upper Permeable Patio Peak Elev=459.92' Storage=596 cf Inflow=0.65 cfs 2,379 cf
Discarded=0.15 cfs 2,378 cf Primary=0.00 cfs 0 cf Outflow=0.15 cfs 2,378 cf

Pond DB2: Lower Permeable Patio Peak Elev=457.98' Storage=242 cf Inflow=0.29 cfs 1,070 cf
Discarded=0.06 cfs 1,070 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 1,070 cf

Pond PS: Pool Storage Below Overflow Peak Elev=458.00' Storage=186 cf Inflow=0.10 cfs 329 cf
Outflow=0.06 cfs 145 cf

Link OR: Overall Runoff Inflow=5.47 cfs 22,600 cf
Primary=5.47 cfs 22,600 cf

Summary for Subcatchment PA1: Impervious Area #1 to Detention System 1

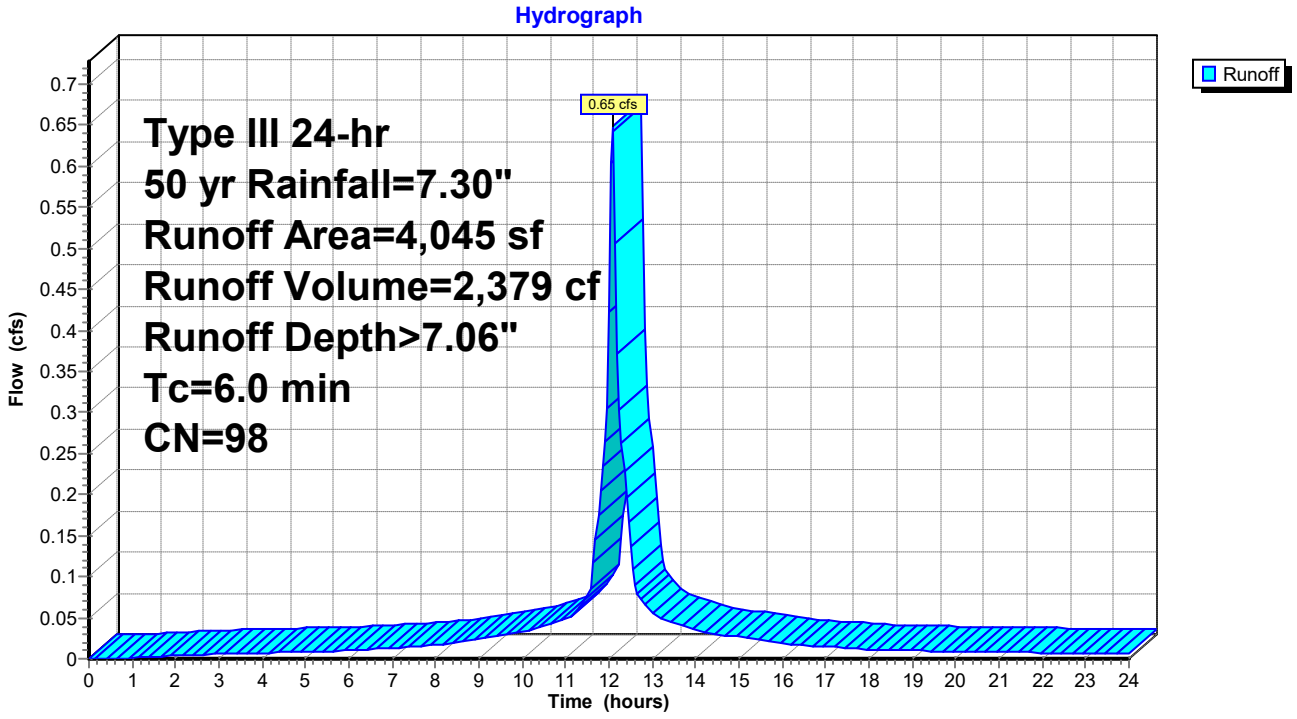
Runoff = 0.65 cfs @ 12.09 hrs, Volume= 2,379 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	125	98	Covered Patio
*	2,150	98	Pool Patio & Walls
*	1,770	98	Building
	4,045	98	Weighted Average
	4,045		100.00% Impervious Area

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

Subcatchment PA1: Impervious Area #1 to Detention System 1



Summary for Subcatchment PA2: Impervious Area #2 to Detention System 2

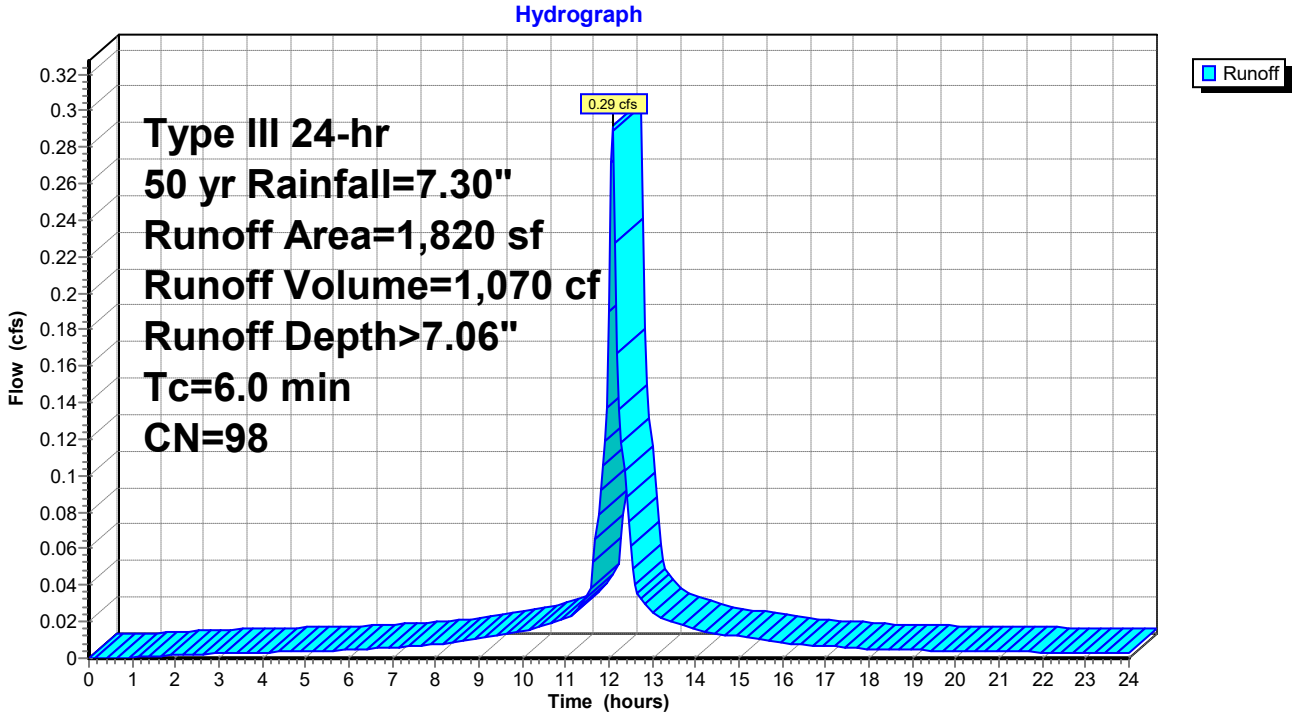
Runoff = 0.29 cfs @ 12.09 hrs, Volume= 1,070 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	1,600	98	Pool Patio & Walls
*	220	98	Building
	1,820	98	Weighted Average
	1,820		100.00% Impervious Area

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

Subcatchment PA2: Impervious Area #2 to Detention System 2



Summary for Subcatchment PB: Proposed Bypass Area

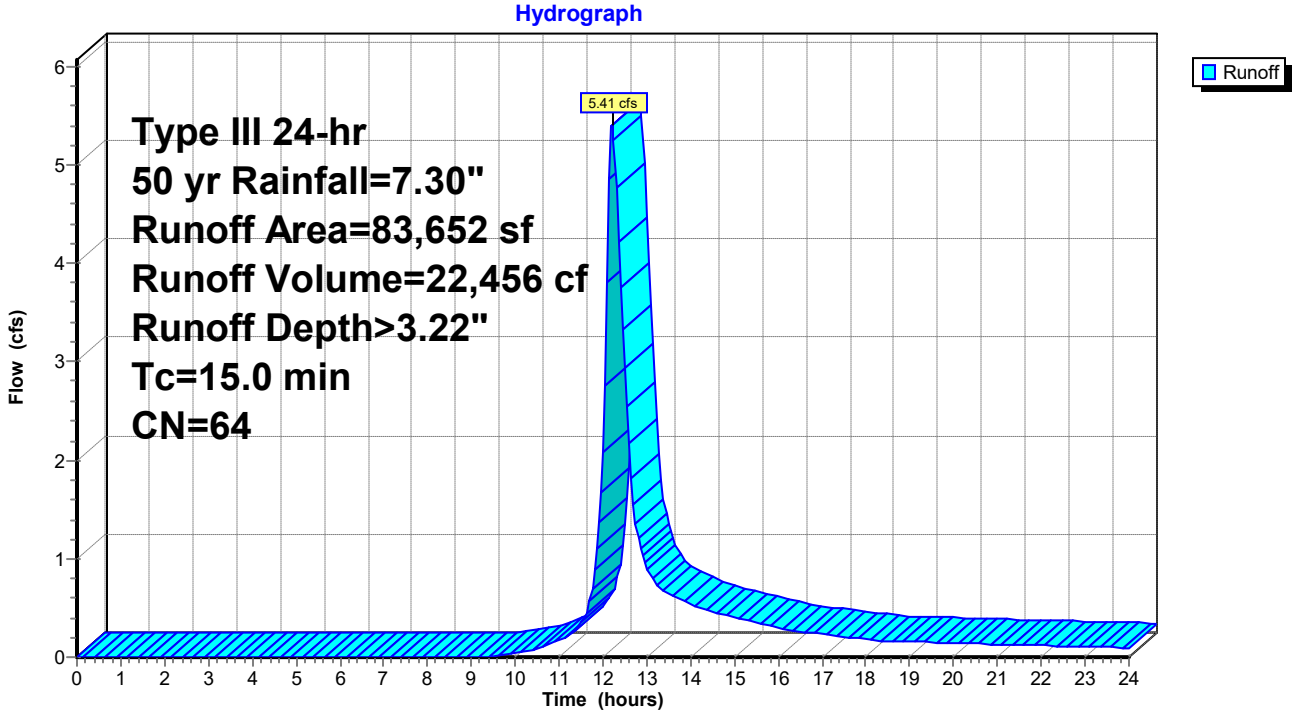
Runoff = 5.41 cfs @ 12.21 hrs, Volume= 22,456 cf, Depth> 3.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	1,090	98	Building
*	3,372	98	Driveway
*	234	98	Patio/Walks
*	350	98	Driveway Expansion
*	250	98	Shed
*	2,996	89	<50% Grass cover, Poor, HSG D (Wetlands)
	75,360	61	>75% Grass cover, Good, HSG B
	83,652	64	Weighted Average
	78,356		93.67% Pervious Area
	5,296		6.33% Impervious Area

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

Subcatchment PB: Proposed Bypass Area



Summary for Subcatchment PSA: Pool Surface Area

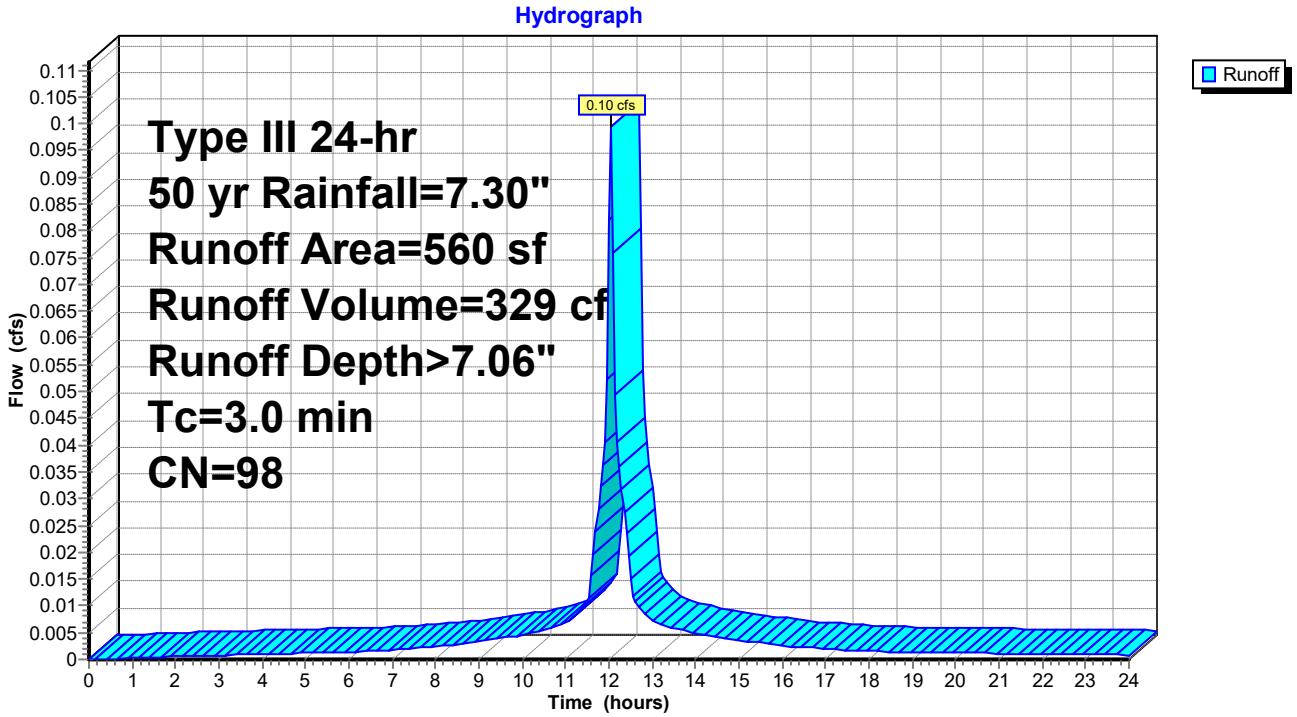
Runoff = 0.10 cfs @ 12.05 hrs, Volume= 329 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	560	98	Pool
	560		100.00% Impervious Area

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

Subcatchment PSA: Pool Surface Area



Summary for Subcatchment XC: Existing Conditions Runoff

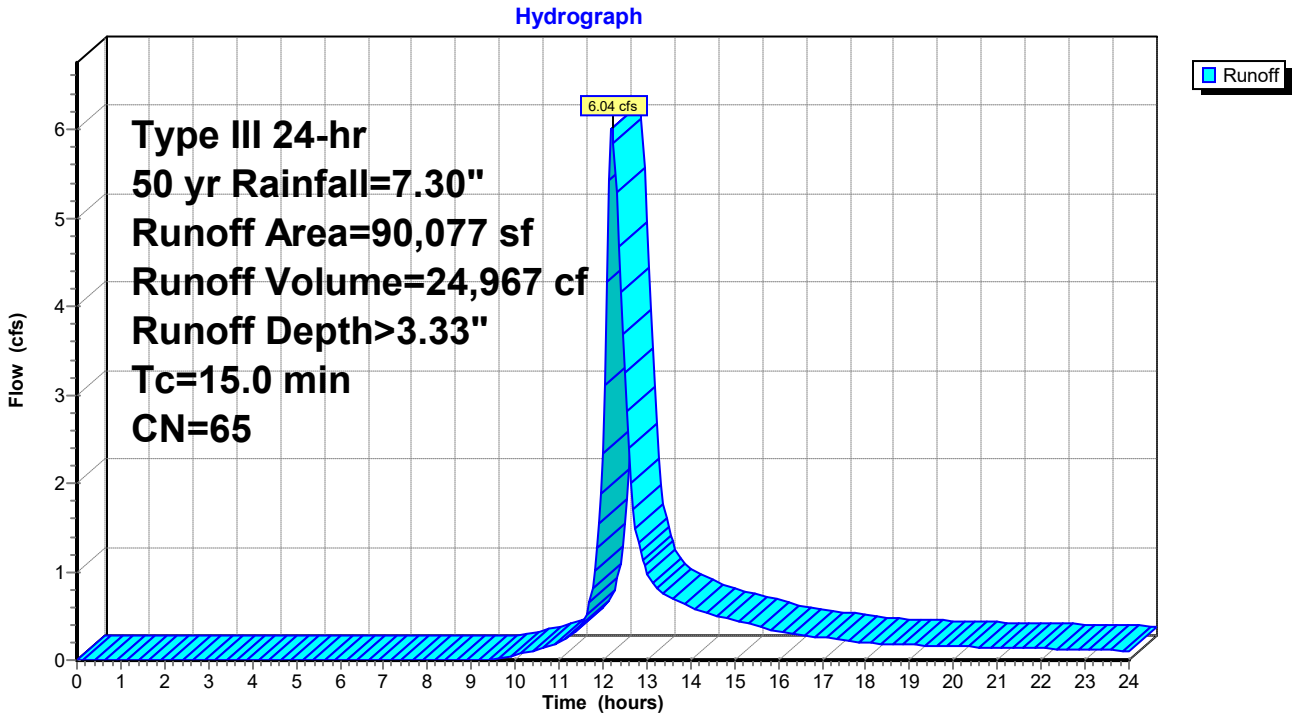
Runoff = 6.04 cfs @ 12.21 hrs, Volume= 24,967 cf, Depth> 3.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	3,080	98	Building
*	3,372	98	Driveway
*	1,162	98	Patio/Walks
*	2,996	89	<50% Grass cover, Poor, HSG D (Wetlands)
	79,467	61	>75% Grass cover, Good, HSG B
	90,077	65	Weighted Average
	82,463		91.55% Pervious Area
	7,614		8.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry, Good Condition Lawn**

Subcatchment XC: Existing Conditions Runoff



Summary for Pond DB1: Upper Permeable Patio

Inflow Area = 4,045 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.65 cfs @ 12.09 hrs, Volume= 2,379 cf
Outflow = 0.15 cfs @ 12.47 hrs, Volume= 2,378 cf, Atten= 77%, Lag= 23.3 min
Discarded = 0.15 cfs @ 12.47 hrs, Volume= 2,378 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 459.92' @ 12.47 hrs Surf.Area= 3,200 sf Storage= 596 cf

Plug-Flow detention time= 26.7 min calculated for 2,373 cf (100% of inflow)
Center-of-Mass det. time= 26.5 min (768.5 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1	459.25'	320 cf	**Permeable Patio Crushed Stone (Conic)** Listed below (Recalc) 800 cf Overall x 40.0% Voids
#2	459.75'	800 cf	**Permeable Patio Open Storage (Conic)** Listed below (Recalc)
		1,120 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
459.25	1,600	0	0	1,600
459.75	1,600	800	800	1,671

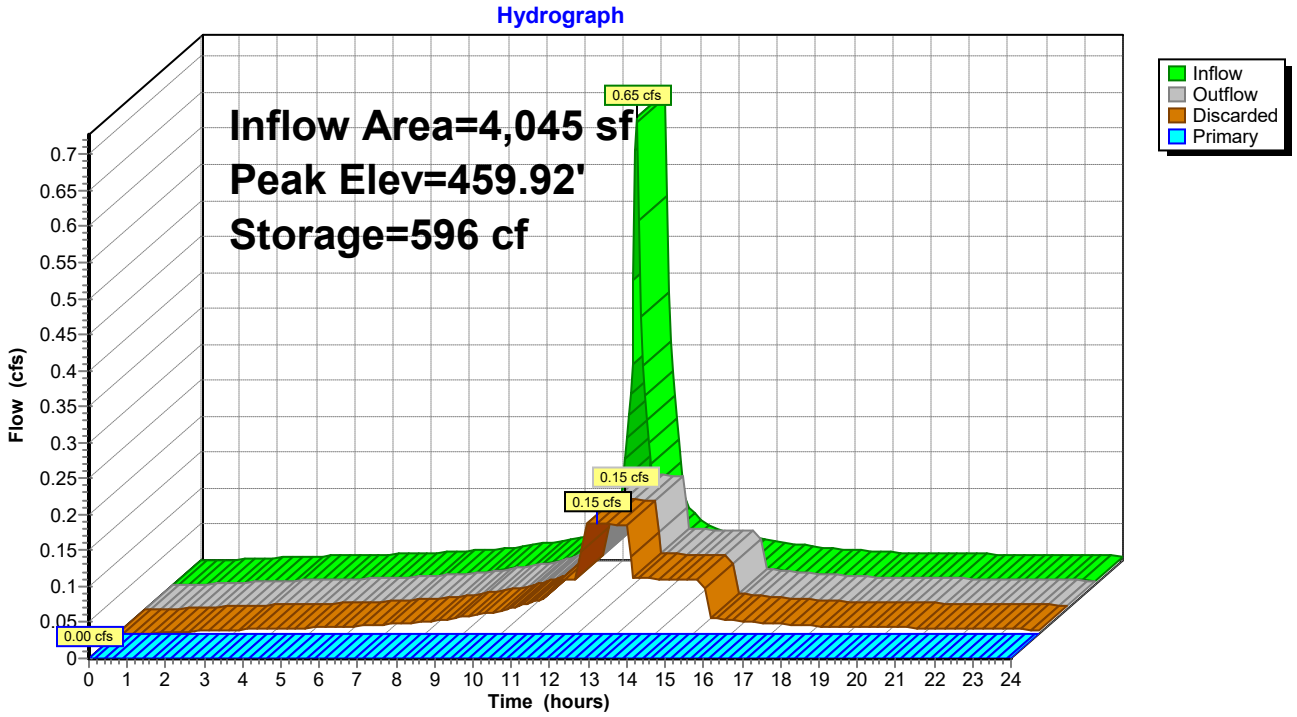
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
459.75	1,600	0	0	1,600
460.25	1,600	800	800	1,671

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	**25.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Discarded	459.25'	**2.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.15 cfs @ 12.47 hrs HW=459.92' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=459.25' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DB1: Upper Permeable Patio



Stage-Area-Storage for Pond DB1: Upper Permeable Patio

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
459.25	1,600	0
459.26	1,601	6
459.27	1,603	13
459.28	1,604	19
459.29	1,606	26
459.30	1,607	32
459.31	1,609	38
459.32	1,610	45
459.33	1,611	51
459.34	1,613	58
459.35	1,614	64
459.36	1,616	70
459.37	1,617	77
459.38	1,618	83
459.39	1,620	90
459.40	1,621	96
459.41	1,623	102
459.42	1,624	109
459.43	1,626	115
459.44	1,627	122
459.45	1,628	128
459.46	1,630	134
459.47	1,631	141
459.48	1,633	147
459.49	1,634	154
459.50	1,635	160
459.51	1,637	166
459.52	1,638	173
459.53	1,640	179
459.54	1,641	186
459.55	1,643	192
459.56	1,644	198
459.57	1,645	205
459.58	1,647	211
459.59	1,648	218
459.60	1,650	224
459.61	1,651	230
459.62	1,652	237
459.63	1,654	243
459.64	1,655	250
459.65	1,657	256
459.66	1,658	262
459.67	1,660	269
459.68	1,661	275
459.69	1,662	282
459.70	1,664	288
459.71	1,665	294
459.72	1,667	301
459.73	1,668	307
459.74	1,669	314
459.75	3,271	320
459.76	3,272	336
459.77	3,274	352
459.78	3,275	368
459.79	3,277	384
459.80	3,278	400
459.81	3,279	416
459.82	3,281	432
459.83	3,282	448
459.84	3,284	464
459.85	3,285	480
459.86	3,286	496
459.87	3,288	512
459.88	3,289	528
459.89	3,291	544
459.90	3,292	560
459.91	3,294	576
459.92	3,295	592
459.93	3,296	608
459.94	3,298	624
459.95	3,299	640
459.96	3,301	656
459.97	3,302	672
459.98	3,304	688
459.99	3,305	704
460.00	3,306	720
460.01	3,308	736
460.02	3,309	752
460.03	3,311	768
460.04	3,312	784
460.05	3,313	800
460.06	3,315	816
460.07	3,316	832
460.08	3,318	848
460.09	3,319	864
460.10	3,321	880
460.11	3,322	896
460.12	3,323	912
460.13	3,325	928
460.14	3,326	944
460.15	3,328	960
460.16	3,329	976
460.17	3,330	992
460.18	3,332	1,008
460.19	3,333	1,024
460.20	3,335	1,040
460.21	3,336	1,056
460.22	3,338	1,072
460.23	3,339	1,088
460.24	3,340	1,104
460.25	**3,342**	**1,120**

Summary for Pond DB2: Lower Permeable Patio

Inflow Area = 1,820 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.29 cfs @ 12.09 hrs, Volume= 1,070 cf
Outflow = 0.06 cfs @ 12.50 hrs, Volume= 1,070 cf, Atten= 79%, Lag= 25.1 min
Discarded = 0.06 cfs @ 12.50 hrs, Volume= 1,070 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 457.98' @ 12.50 hrs Surf.Area= 1,250 sf Storage= 242 cf

Plug-Flow detention time= 20.1 min calculated for 1,070 cf (100% of inflow)
Center-of-Mass det. time= 20.0 min (762.0 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1	457.50'	250 cf	**Permeable Patio Crushed Stone (Conic)** Listed below (Recalc) 625 cf Overall x 40.0% Voids
#2	458.00'	625 cf	**Permeable Patio Open Storage (Conic)** Listed below (Recalc)
		875 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
457.50	1,250	0	0	1,250
458.00	1,250	625	625	1,313

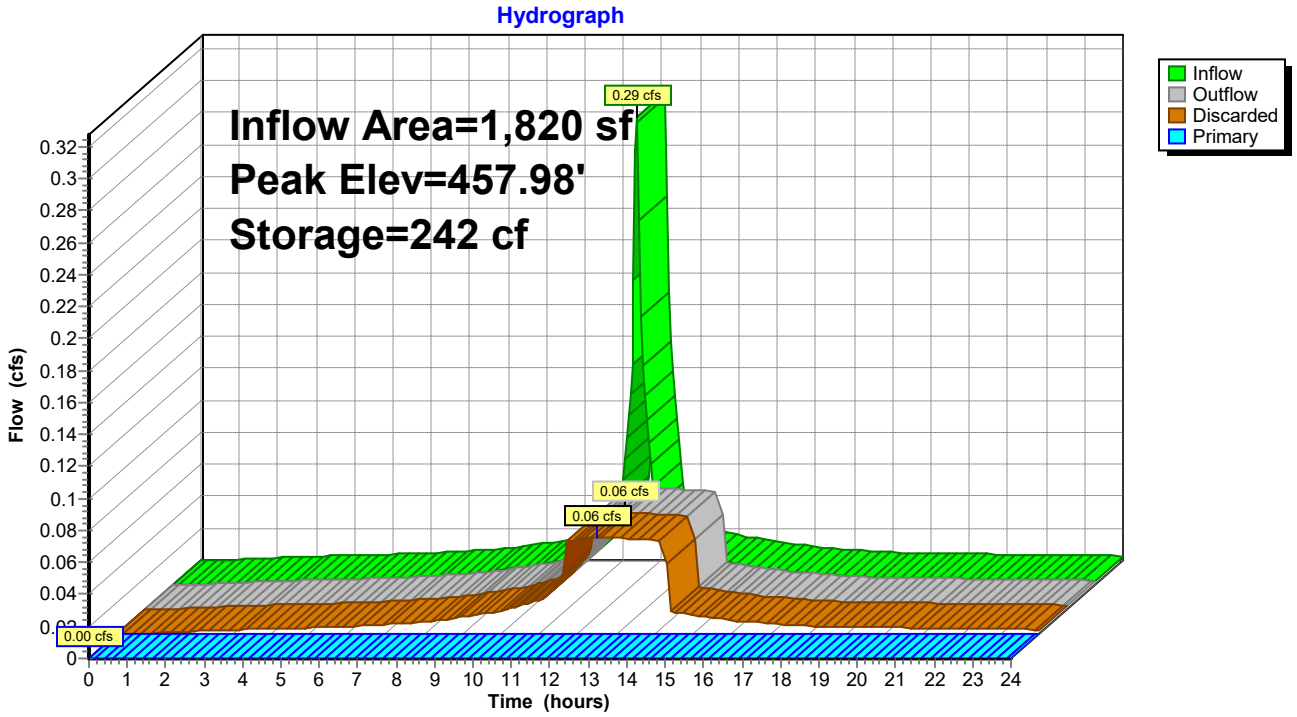
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	1,250	0	0	1,250
458.50	1,250	625	625	1,313

Device	Routing	Invert	Outlet Devices
#1	Primary	458.25'	**57.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Discarded	457.50'	**2.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.06 cfs @ 12.50 hrs HW=457.98' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=457.50' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DB2: Lower Permeable Patio



Stage-Area-Storage for Pond DB2: Lower Permeable Patio

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
457.50	1,250	0
457.51	1,251	5
457.52	1,253	10
457.53	1,254	15
457.54	1,255	20
457.55	1,256	25
457.56	1,258	30
457.57	1,259	35
457.58	1,260	40
457.59	1,261	45
457.60	1,263	50
457.61	1,264	55
457.62	1,265	60
457.63	1,266	65
457.64	1,268	70
457.65	1,269	75
457.66	1,270	80
457.67	1,271	85
457.68	1,273	90
457.69	1,274	95
457.70	1,275	100
457.71	1,276	105
457.72	1,278	110
457.73	1,279	115
457.74	1,280	120
457.75	1,281	125
457.76	1,283	130
457.77	1,284	135
457.78	1,285	140
457.79	1,286	145
457.80	1,288	150
457.81	1,289	155
457.82	1,290	160
457.83	1,291	165
457.84	1,293	170
457.85	1,294	175
457.86	1,295	180
457.87	1,296	185
457.88	1,298	190
457.89	1,299	195
457.90	1,300	200
457.91	1,301	205
457.92	1,303	210
457.93	1,304	215
457.94	1,305	220
457.95	1,306	225
457.96	1,308	230
457.97	1,309	235
457.98	1,310	240
457.99	1,311	245
458.00	2,563	250
458.01	2,564	262
458.02	2,565	275
458.03	2,566	287
458.04	2,568	300
458.05	2,569	313
458.06	2,570	325
458.07	2,571	337
458.08	2,573	350
458.09	2,574	362
458.10	2,575	375
458.11	2,576	388
458.12	2,578	400
458.13	2,579	412
458.14	2,580	425
458.15	2,581	437
458.16	2,583	450
458.17	2,584	463
458.18	2,585	475
458.19	2,586	487
458.20	2,588	500
458.21	2,589	512
458.22	2,590	525
458.23	2,591	538
458.24	2,593	550
458.25	2,594	563
458.26	2,595	575
458.27	2,597	587
458.28	2,598	600
458.29	2,599	613
458.30	2,600	625
458.31	2,602	638
458.32	2,603	650
458.33	2,604	662
458.34	2,605	675
458.35	2,607	688
458.36	2,608	700
458.37	2,609	713
458.38	2,610	725
458.39	2,612	737
458.40	2,613	750
458.41	2,614	763
458.42	2,615	775
458.43	2,617	788
458.44	2,618	800
458.45	2,619	812
458.46	2,620	825
458.47	2,622	838
458.48	2,623	850
458.49	2,624	863
458.50	**2,625**	**875**

Summary for Pond PS: Pool Storage Below Overflow

Inflow Area = 560 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.10 cfs @ 12.05 hrs, Volume= 329 cf
Outflow = 0.06 cfs @ 12.20 hrs, Volume= 145 cf, Atten= 43%, Lag= 9.2 min
Primary = 0.06 cfs @ 12.20 hrs, Volume= 145 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 458.00' @ 12.20 hrs Surf.Area= 560 sf Storage= 186 cf

Plug-Flow detention time= 301.0 min calculated for 144 cf (44% of inflow)
Center-of-Mass det. time= 153.6 min (893.0 - 739.5)

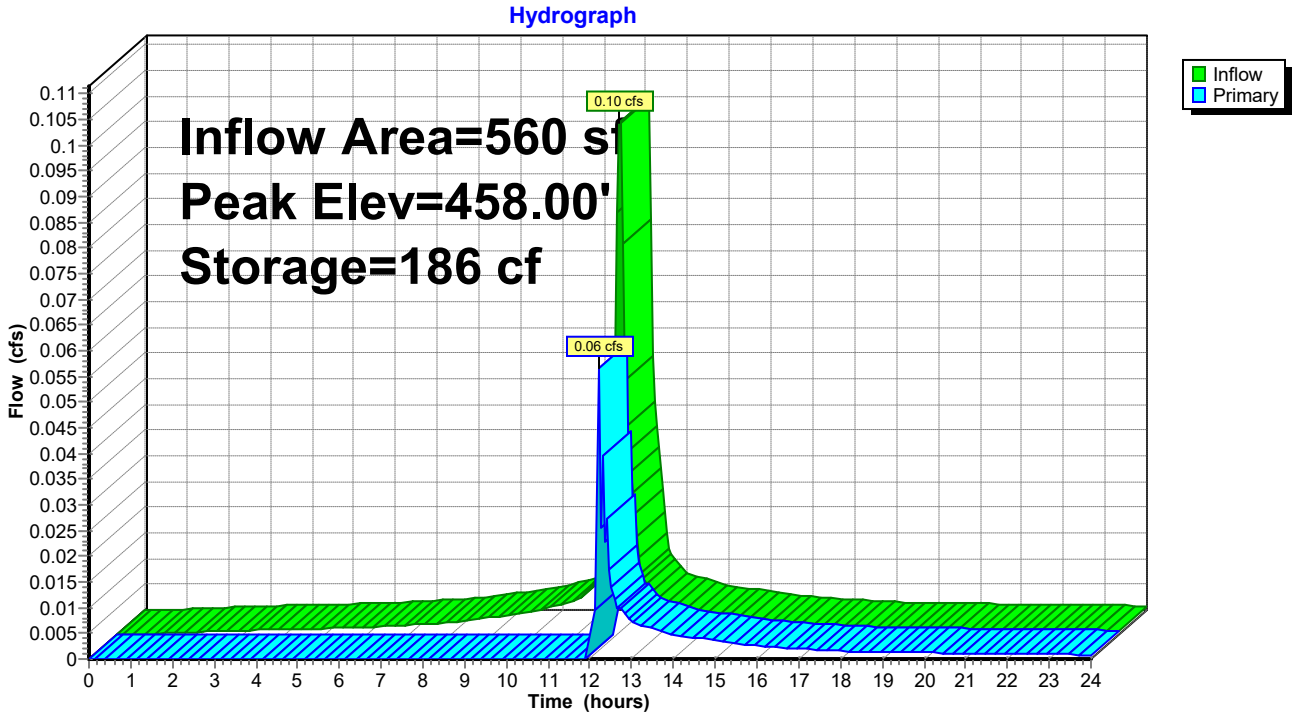
Volume	Invert	Avail.Storage	Storage Description
#1	457.67'	560 cf	**Pool Storage (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
457.67	560	0	0
458.67	560	560	560

Device	Routing	Invert	Outlet Devices
#1	Primary	458.00'	**102.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.02 cfs @ 12.20 hrs HW=458.00' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Weir Controls 0.02 cfs @ 0.13 fps)

Pond PS: Pool Storage Below Overflow



Stage-Area-Storage for Pond PS: Pool Storage Below Overflow

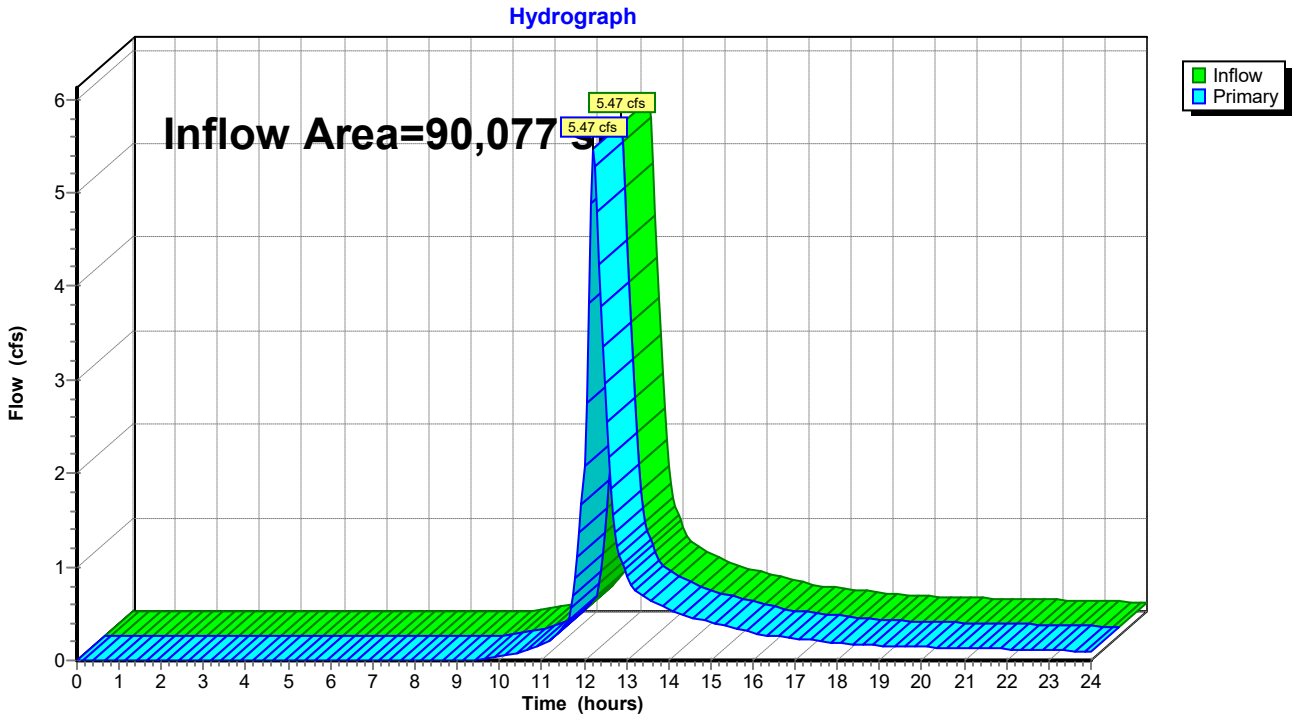
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.67	**560**	0
457.68	560	6
457.69	560	11
457.70	560	17
457.71	560	22
457.72	560	28
457.73	560	34
457.74	560	39
457.75	560	45
457.76	560	50
457.77	560	56
457.78	560	62
457.79	560	67
457.80	560	73
457.81	560	78
457.82	560	84
457.83	560	90
457.84	560	95
457.85	560	101
457.86	560	106
457.87	560	112
457.88	560	118
457.89	560	123
457.90	560	129
457.91	560	134
457.92	560	140
457.93	560	146
457.94	560	151
457.95	560	157
457.96	560	162
457.97	560	168
457.98	560	174
457.99	560	179
458.00	560	185
458.01	560	190
458.02	560	196
458.03	560	202
458.04	560	207
458.05	560	213
458.06	560	218
458.07	560	224
458.08	560	230
458.09	560	235
458.10	560	241
458.11	560	246
458.12	560	252
458.13	560	258
458.14	560	263
458.15	560	269
458.16	560	274
458.17	560	280
458.18	560	286
458.19	560	291
458.20	560	297
458.21	560	302
458.22	560	308
458.23	560	314
458.24	560	319
458.25	560	325
458.26	560	330
458.27	560	336
458.28	560	342
458.29	560	347
458.30	560	353
458.31	560	358
458.32	560	364
458.33	560	370
458.34	560	375
458.35	560	381
458.36	560	386
458.37	560	392
458.38	560	398
458.39	560	403
458.40	560	409
458.41	560	414
458.42	560	420
458.43	560	426
458.44	560	431
458.45	560	437
458.46	560	442
458.47	560	448
458.48	560	454
458.49	560	459
458.50	560	465
458.51	560	470
458.52	560	476
458.53	560	482
458.54	560	487
458.55	560	493
458.56	560	498
458.57	560	504
458.58	560	510
458.59	560	515
458.60	560	521
458.61	560	526
458.62	560	532
458.63	560	538
458.64	560	543
458.65	560	549
458.66	560	554
458.67	560	**560**

Summary for Link OR: Overall Runoff

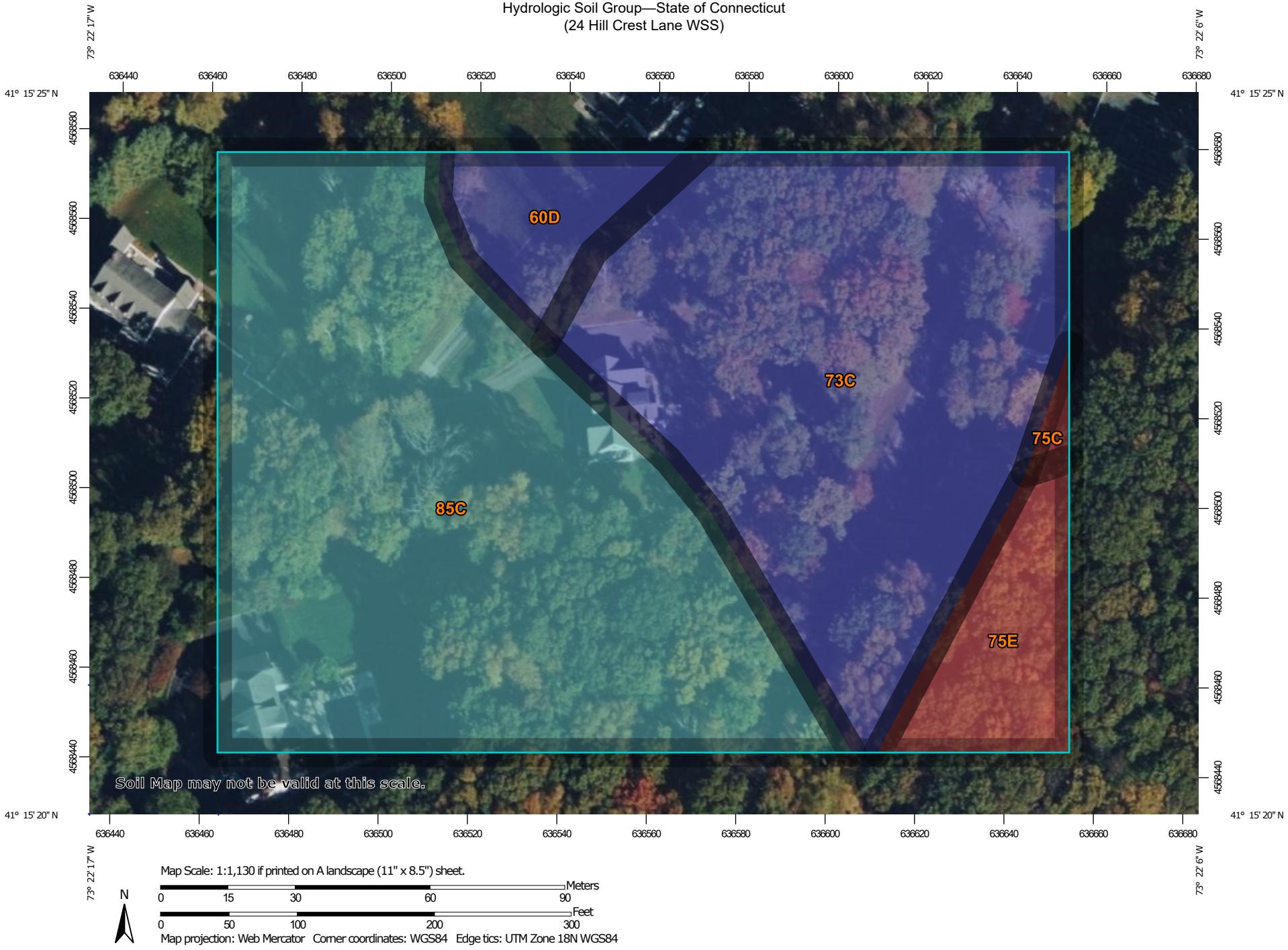
Inflow Area = 90,077 sf, 13.01% Impervious, Inflow Depth > 3.01" for 50 yr event
Inflow = 5.47 cfs @ 12.21 hrs, Volume= 22,600 cf
Primary = 5.47 cfs @ 12.21 hrs, Volume= 22,600 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link OR: Overall Runoff



Hydrologic Soil Group—State of Connecticut
(24 Hill Crest Lane WSS)



Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

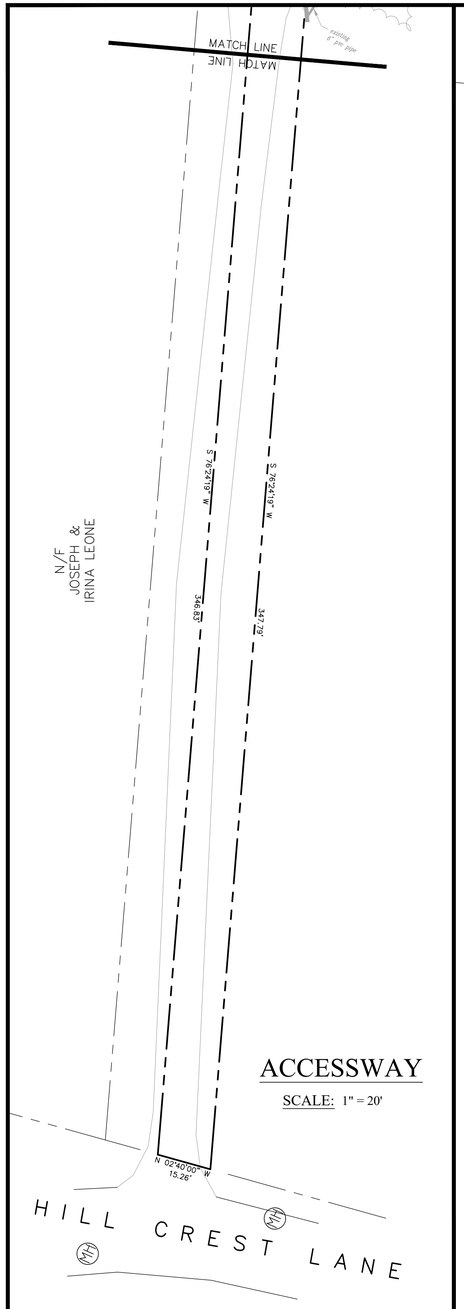
Meters
0 15 30 60 90

Feet
0 50 100 200 300

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
60D	Canton and Charlton soils, 15 to 25 percent slopes	B	0.3	5.2%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	2.4	38.2%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	D	0.0	0.5%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	D	0.4	6.5%
85C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony	C	3.1	49.7%
Totals for Area of Interest			**6.3**	**100.0%**



Approximate Excavation & Fill Volumes:

154 Cubic Yards of Excavation
107 Cubic Yards of Fill

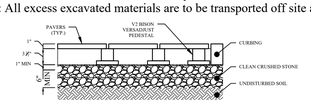
ACCESSWAY

SCALE: 1" = 20'

SEQUENCE OF ACTIVITIES:

1. Install erosion control measures prior to any construction activity.
2. Excavate & install the inground pool.
3. Backfill the pool and rough grade the property.
4. Install all retaining walls needed between the upper and lower patio.
5. Scarify the soils beneath the permeable patio.
6. Install crushed stone bed beneath patio with associated patio footings.
7. Stabilize all disturbed areas other than around the pool and patio.
8. Install patio surface after approval from drainage inspection.
7. Fully stabilize property by seeding all lawn areas and remove all erosion control measures when all disturbed areas have been fully stabilized.

NOTE: All excess excavated materials are to be transported off site and disposed of legally.



PERMEABLE PATIO
N.T.S.

PERCOLATION TEST DATA:
PERFORMED BY: KOUSIDIS ENGINEERING, LLC
DATE: APRIL 24, 2022

P#1
DIAMETER: 8" SANITARIAN: LORA HAYES
DEPTH: 24" PRE SOAK TIME: SATURATED

TIME	TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
10:30		6.50"		
10:40	10.0 MIN.	9.25"	2.75"	3.64
10:50	10.0 MIN.	10.75"	1.50"	6.67
11:00	10.0 MIN.	12.00"	1.25"	8.00
11:10	10.0 MIN.	13.00"	1.00"	10.00
11:20	10.0 MIN.	14.00"	1.00"	10.00
11:30	10.0 MIN.	15.00"	1.00"	10.00

P#2
DIAMETER: 9" SANITARIAN: LORA HAYES
DEPTH: 40" PRE SOAK TIME: SATURATED

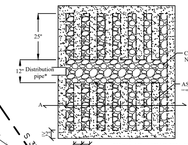
TIME	TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
10:30		16.50"		
10:40	10.0 MIN.	17.625"	1.125"	8.89
10:50	10.0 MIN.	18.50"	0.875"	11.43
11:00	10.0 MIN.	19.375"	0.875"	11.43
11:10	10.0 MIN.	20.00"	0.625"	16.00
11:20	10.0 MIN.	20.50"	0.50"	20.00
11:30	10.0 MIN.	21.00"	0.50	20.00

DEEP TEST PIT LOG
CONDUCTED BY: KOUSIDIS ENGINEERING, LLC
DATE CONDUCTED: APRIL 14, 2022

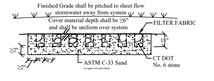
TEST PIT #1
00-10" TOPSOIL
10-64" TAN COARSE SAND W/ ANGULAR STONE
64-84" LIGHT BROWN MEDIUM SAND W/ TRACE OF SILT
*NO MOTTLES
*NO GROUND
*NO LEDGE
*NO ROOTS

TEST PIT #2
00-04" TOPSOIL
04-22" ORANGE BROWN SANDY LOAM
22-68" TAN MEDIUM SAND W/ ANGULAR STONES & TRACE OF SILT
68-98" LIGHT BROWN SATURATED MEDIUM SAND & SILT
*MOTTLES @ 68"
*GROUND @ 68"
*NO LEDGE
*ROOTS @ 54"

TEST PIT #3
00-06" TOPSOIL
06-24" MISC. FILL
24-30" ORIGINAL TOPSOIL
30-42" ORANGE BROWN SILTY LOAM
42-60" TAN MOTTLED FINE SAND & SILT
*MOTTLES @ 42"
*GROUND @ 42"
*NO LEDGE
*NO ROOTS



*3" min. I.D., ASTM D-3034, SDR 35 pipe for gravity applications
0.75" min. I.D., ASTM D-3665, SCH 40 PVC pipe for pressure applications



GEOMATRIX GST LEACHING SYSTEM
(GST 6218)
N.T.S.

SEPTIC DESIGN NOTES (GEOMATRIX GST 6218)
Proposed # of Bedrooms: 6 (5 Existing, 1 Future)
Percolation Rate: 1"/10 min. (Design Rate)
Effective Leaching Area Required: 742.5 sq. ft.
Effective Leaching Area Provided: (65LF)(14.0SF/LF)=910 SF
MLSS REQUIREMENTS:
RESTRICTIVE LAYER: [((TP#1 + TP#2)/2)+TP#105]/2
RESTRICTIVE LAYER: [((60"+60")/2)+36]/2 = 48"
SLOPE = >15%
HYDRAULIC FACTOR: 14
PERCOLATION FACTOR: 1.00 (1"/10MIN)
FLOW FACTOR: 2.25 (6-BEDROOM DESIGN)
MLSS: 14x1.00x2.25 = 31.5
MLSS PROVIDED: 65LF

DEEP TEST PIT LOG
CONDUCTED BY: LAND-TECH CONSULTANTS, INC.
DATE CONDUCTED: APRIL 03, 2008

TEST PIT #101
00-04" TOPSOIL
04-26" RED BROWN SANDY LOAM
26-40" LOOSE SANDY TILL
40-76" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 76"
*NO LEDGE
*ROOTS TO 56"

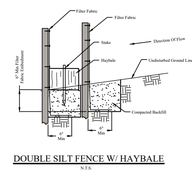
TEST PIT #102
00-04" TOPSOIL
04-24" RED BROWN SANDY LOAM
24-46" LOOSE SANDY TILL
46-84" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*NO GROUNDWATER
*NO LEDGE
*ROOTS TO 36"

TEST PIT #103
00-04" TOPSOIL
04-30" RED BROWN SANDY LOAM
30-45" LOOSE BROWN SANDY TILL
45-84" TIGHTLY COMPACTED BROWN SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 84"
*NO LEDGE
*ROOTS TO 62"

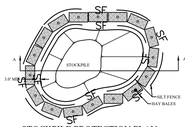
TEST PIT #104
00-04" TOPSOIL
04-26" RED BROWN SANDY LOAM
26-38" LOOSE BROWN SANDY TILL
30-70" MODERATELY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 76"
*NO LEDGE
*ROOTS TO 54"

TEST PIT #105
00-04" ORGANIC
04-24" RED BROWN SANDY LOAM
24-62" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 36"
*NO LEDGE
*ROOTS TO 28"

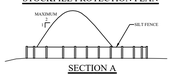
MUD-TRACKING PAD
N.T.S.



DOUBLE SILT FENCE W/ HAYBALE
N.T.S.



STOCKPILE PROTECTION PLAN



SECTION A
N.T.S.

GENERAL NOTES:

1. ALL SURVEY DATA, BOUNDARY LINES AND TOPOGRAPHY, ARE FROM A "LIMITED BOUNDARY SURVEY ZONING LOCATION SURVEY" PREPARED FOR CHARLES REDLITZ AT 24 HILL CREST LANE, WESTON, CT, PREPARED BY SILVA LAND SURVEYING, LLC, DATED JULY 20, 2021.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE TOWN OF WESTON REQUIREMENTS, THE STATE OF CONNECTICUT BASIC BUILDING CODE AND THE CONNECTICUT GUIDELINES FOR SOIL AND EROSION AND SEDIMENT CONTROL.
3. INFORMATION OF EXISTING UTILITIES HAS BEEN COMPILED FROM VARIOUS SOURCES INCLUDING UTILITY COMPANY RECORDS, MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES.
4. THE PROPERTY WILL BE SERVICED BY WELL WATER AND PRIVATE SEPTIC SYSTEM. NO KNOWN SEPTIC SYSTEMS AND STORM DRAIN SYSTEMS WITHIN 50' OF THE PROPOSED SEPTIC SYSTEM. NO KNOWN WELLS ARE LOCATED WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY EXCAVATION SAFEGUARDS, NECESSARY BARRICADES, FLAGMEN, ETC., FOR TRAFFIC CONTROL AND SITE SAFETY. ALL WORK SHALL BE DONE IN ACCORDANCE WITH OSHA REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH OSHA REQUIREMENTS.
6. REMOVE STUMPS AND BRUSH FROM SITE, OR CHIP AND USE DURING LANDSCAPING. DO NOT BURY STUMPS ON SITE.
7. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE PLANS UNLESS CHANGES HAVE BEEN APPROVED IN WRITING BY THE DESIGN ENGINEER PRIOR TO THE WORK BEING DONE.
8. ALL DISTURBED AREAS SHALL BE MULCHED AND SEEDED AS SOON AS POSSIBLE.
9. AREAS OF ASPHALT PAVEMENT THAT ARE DISTURBED BY THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED IN ACCORDANCE WITH THE ASPHALT TRENCH REPAIR DETAIL. THE FINISHED GRADE OF ASPHALT PAVING SHALL BLEND TO EXISTING GRADE AND THE EDGE OF THE CONCRETE PAVEMENT SMOOTHLY WITH NO SLOPES EXCEEDING 4%.
10. A MINIMUM OF 6" OF CRUSHED STONE MUST BE INSTALLED UNDER ALL EXTERIOR PORCHES AND STAIRS.

EARTHWORK & GRADING:

11. GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
12. PROPOSED EARTH SLOPES SHALL BE NO STEEPER THAN 5:1 (HORZ.:VERT.), UNLESS OTHERWISE DEPICTED ON SITE PLAN.
13. GENERAL FILL BEYOND PAVED AREAS SHALL BE FREE OF BRUSH RUBBISH, STUMPS. FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95 % OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D698. AFTER COMPACTING, THE FILL SHALL BE 4" BELOW THE REQUIRED GRADE AS SHOWN ON THE PLAN.
14. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2" TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
15. FILL OR TOPSOIL SHALL NOT BE PLACED NOR COMPACTED WHILE IN A FROZEN OR MUDDY CONDITION OR WHILE SUBGRADE IS FROZEN.
16. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

STORM SEWER SYSTEMS:

17. ALL PIPE SHALL BE INSTALLED STRAIGHT AND AT THE VERTICAL AND HORIZONTAL ALIGNMENT SHOWN. NO 90° BENDS IN ALL PIPES.
18. MINIMUM COVER ON ALL PIPES SHALL BE TWO FEET (2') UNLESS OTHERWISE NOTED.
19. ALL POLY VINYL CHLORIDE PIPE (PVCP) SHALL BE SDR 35 WITH RUBBER JOINTS AND MEET THE REQUIREMENTS ASTM D3 AND D3212.
20. ALL AREA DRAINS SHALL HAVE A 2' SUMP.
21. CONTACT THE DESIGN ENGINEER THREE DAYS PRIOR TO EXCAVATING FOR THE INFILTRATION SYSTEM. DURING THE EXCAVATION, THE DESIGN ENGINEER MAY REVISE THE ELEVATIONS OF THE SYSTEM IF FIELD CONDITIONS DICTATE.
22. THE ENGINEER OF RECORD IS REQUIRED TO WITNESS THE INSTALLATION OF THE DRAINAGE SYSTEM PRIOR TO BACKFILLING.
23. DIRECT THE PERMEABLE PATIO TO THE PROPOSED PATIO STORAGE AS DEPICTED.

SEDIMENT & EROSION CONTROLS:

24. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE SITE ENGINEER PRIOR TO ANY LAND DISTURBANCE. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENT MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE SITE ENGINEER.
25. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURES WITHOUT PRIOR PERMISSION FROM THE SITE ENGINEER.
26. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC OR PRIVATE ROADS. ALL MATERIALS DEPOSITED ONTO SUCH ROADS SHALL BE REMOVED AS SOON AS POSSIBLE.
27. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY REMOVED WITH PRIOR PERMISSION FROM THE SITE ENGINEER.
28. ALL DISTURBED AREAS WITH A SLOPE STEEPER THAN 3:1 SHALL BE STABILIZED WITH SOD OR SEED AND ANCHORED STRAW MULCH OR OTHER APPROVED STABILIZATION MEASURE, AS SOON AS POSSIBLE BUT NO LATER THAN 5 CALENDAR DAYS.
29. SEDIMENT TRAPS AND BASINS SHALL NOT BE CONSTRUCTED WITHIN 25' OF AN EXISTING FOUNDATION OR ONE THAT IS UNDER CONSTRUCTION.
30. SEDIMENT REMOVED FROM TRAPS, SILTATION FENCES OR BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS BUT NOT WITHIN A FLOODPLAIN, WETLANDS OR TREE-SAVE AREAS.
31. ALL WATER REMOVED FROM EXCAVATED AREAS SHALL BE PASSED THROUGH APPROVED DEWATERING PRACTICES OR PUMPED TO A SEDIMENT BASIN PRIOR TO DISCHARGE TO A FUNCTIONAL STORM DRAIN SYSTEM OR TO STABLE GROUND SURFACE.
32. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES THE CONTRACTOR SHALL STABILIZE AND HAVE ESTABLISHED PERMANENT STABILIZATION FOR ALL DISTURBED AREAS USING SOD OR AN APPROVED SIX MIXTURE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON MUST BE STABILIZED WITH PERMANENT GROWTH AS SOON AS POSSIBLE. WHEN PROPERTY IS BROUGHT TO FINISHED GRADES DURING THE WINTER MONTHS WHEN PERMANENT STABILIZATION IS IMPRACTICAL THEN AN APPROVED TEMPORARY STABILIZATION SHALL BE DONE UNTIL THE SPRING MONTHS WHERE PERMANENT STABILIZATION IS POSSIBLE.

SEWAGE DISPOSAL SYSTEM NOTES:

1. THE PROPOSED SEWAGE DISPOSAL SYSTEMS SHALL CONFORM TO SECTIONS 19-13-B103A TO 19-13-B103F OF THE CONNECTICUT STATE HEALTH CODE.
2. THE PROPOSED SOIL LINES SHALL BE AS DEPICTED ON THE PLAN.
3. THE PROPOSED SEPTIC TANK SHALL BE A TWO-COMPARTMENT TANK. THE TANK SHALL BE WATERTIGHT AND BE SO CERTIFIED BY THE MANUFACTURER. THE SEPTIC TANK SHALL BE AS MANUFACTURED BY EASTERN PRECAST, OR EQUIVALENT AS APPROVED BY THE ENGINEER.
4. TO PREVENT LEAKAGE, THE CONTRACTOR SHALL MORTAR ALL INLET AND OUTLET PIPES FROM THE SEPTIC TANK AND DISTRIBUTION BOXES ONCE PIPES HAVE BEEN INSTALLED.
5. ALL SOLID EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PVC PLASTIC PIPE (ASTM D3034) SDR-35 WITH RUBBER GASKET, BELL AND SPIGOT.
6. ALL PERFORATED EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PERFORATED PVC PLASTIC PIPE (ASTM D2729) WITH BELL AND SPIGOT, NO GASKET.
7. ALL DISTRIBUTION BOXES SHALL BE AS MANUFACTURED BY EASTERN PRECAST OR AN APPROVED EQUAL.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL STAKE THE AREA OF THE PROPOSED SEWAGE DISPOSAL SYSTEM AND THE ADJACENT PROPERTY LINES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ASPETUCK HEALTH DISTRICT WHEN STAKING HAS BEEN COMPLETED SO THAT AN INSPECTION OF THE STAKING CAN BE MADE.
9. AFTER THE SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION OR GRADE AS SHOWN ON THE PLAN, TOPSOILED, FINE RAKED AND SEEDED.
10. THIS DESIGN CONFORMS TO APPLICABLE CODES AND ACCEPTED PRACTICE. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED.
11. THE SEPTIC DESIGN DOES NOT ACCOUNT FOR LARGE TUBS WITH CAPACITY OVER 99 GALLONS.
12. THE RECORD ENGINEER MUST PREPARE THE "SEPTIC AS-BUILT PLAN", THUS THE ENGINEER MUST BE NOTIFIED TO INSPECT ALL ASPECTS OF THE NEW SEPTIC SYSTEM PREPARATION AND INSTALLATION.

SELECT FILL NOTES:

1. SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER.
2. SELECT FILL EXCEEDING 6% PASSING THE #200 SIEVE BASED ON A WET SIEVE TEST CANNOT BE APPROVED BY THE DESIGN ENGINEER. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
3. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE. NOTE: THIS IS THE GRAVEL PORTION OF THE SAMPLE.
4. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
5. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

PERCENT PASSING SIEVE SIZE

	WET SIEVE	DRY SIEVE
#4	100	100
#10	70 - 100	70 - 100
#40	10 - 50 *	10 - 75
#100	0 - 20	0 - 5
#200	0 - 5	0 - 2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
SELECT FILL THAT DOES NOT MEET THE DRY SIEVE GRADATION CRITERIA BUT MEETS THE WET SIEVE GRADATION CRITERIA IS ACCEPTABLE. SIEVE TESTING OF SELECT FILL IS REQUIRED FOR LARGE (2,000 GPD OR GREATER) SYSTEMS WHENEVER THE LEACHING SYSTEM IS LOCATED TOTALLY IN SELECT FILL. THE LOCAL DIRECTOR OF HEALTH MAY REQUIRE SIEVE TESTING OF SELECT FILL ON LESS THAN 2,000 GPD SEWAGE SYSTEMS IN ACCORDANCE WITH PHC SECTION 19-13-B103E (D) (6).

REVISED: 05/13/2022 - Rerouted portion of existing roof leader pipes to permeable patio per Conservation Commission request.

SITE DEVELOPMENT PLAN

24 HILL CREST LANE

WESTON, CT

Prepared for

CHRIS REDLITZ

SCALE: 1" = 20' (0 — 20 — 40)

DATED: 04/14/2022
JOB NO: CR22-1
SHEET NO: 1 of 1

KOUSIDIS ENGINEERING, LLC
Land Development Consultants and Site Design
10-B First Street, Norwalk, CT 06855
P: 203-557-8943 F: 203-557-8944
E: jim@kousidisengineering.com
Web: www.kousidisengineering.com

Kousidis Engineering, LLC
Land Development Consultants & Site Design

DRAINAGE ANALYSIS

LOCATED AT
24 HILL CREST LANE
WESTON, CONNECTICUT

PREPARED FOR
CHRIS REDLITZ

April 14, 2022
Revised: May 13, 2022

Jim Kousidis, P.E.
CT License No. 26830

KOUSIDIS ENGINEERING, LLC, 10-B First Street, Norwalk, CT 06855. P: (203) 557-8943
www.kousidisengineering.com, jim@kousidisengineering.com

1. EXISTING CONDITIONS

This 90,077-sq. ft. residential property is currently developed with a single-family residence, attached garage and driveway. Test pits at the site indicate highly pervious soils that are adequate to accept a subsurface storm drain system. The topography of the property slopes to the south and west. According to the Web Soil Survey website (map and soil table attached) the soils in the subject area consist of Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky, a well-drained soil with a Hydrologic Soil Group "B".

2. PROPOSED CONDITIONS

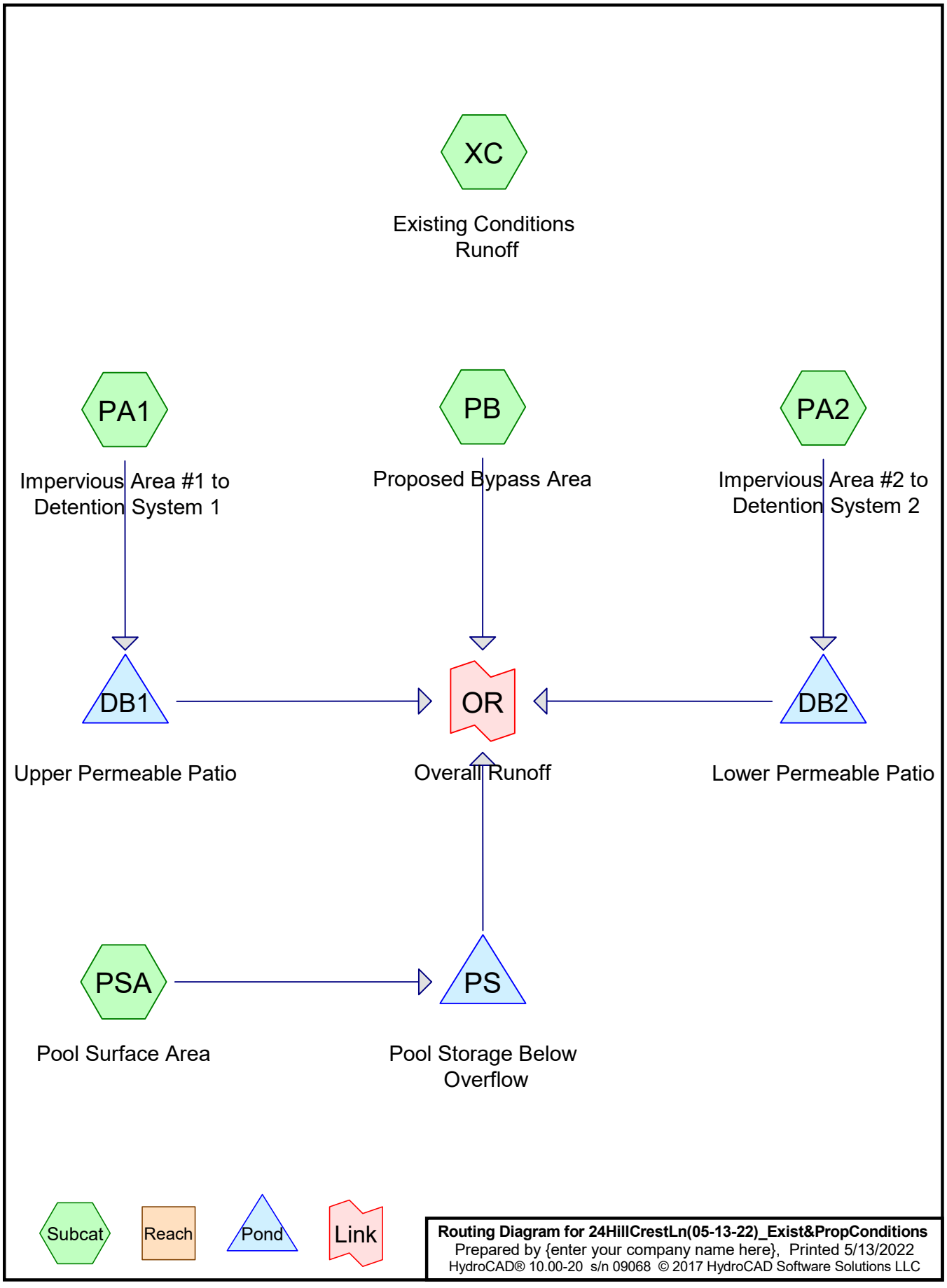
A new development is being proposed for the subject property. The owner is proposing to demolish the existing rear patio and construct a new inground pool with two new permeable patios, a driveway expansion, and a new deck, with associated site improvements. The total proposed impervious surface is 5,035-sq.ft. A stormwater retention system will be installed to satisfy the Town of Weston's requirements of zero increase in runoff for a 24-hour, type III rainfall, 50-year storm event. The new patio area and a portion of the existing roof area must be directed to the stone beds below the proposed permeable patio.

3. DRAINAGE

Under existing conditions, the peak runoff from the site is 6.04 cfs for the 50-year storm. The Town's requirement for zero increase in runoff is satisfied by collecting the new patio area and the . The runoff from impervious surface area #1 generates a peak 50-year flow of 0.65 cfs. The runoff from impervious surface area #2 generates a peak 50-year flow of 0.29 cfs. The overall post conditions runoff is 5.79 cfs. Subsurface drainage system #1 consists of a 1,600 sq.ft. permeable patio with a of crushed stone bed beneath. Subsurface drainage system #2 consists of a 1,250 sq.ft. permeable patio with a crushed stone bed beneath. In addition to the above, the drainage system was checked for the capacity to hold the first flush from all the new impervious surfaces. The runoff volume from 1" of rainfall is (5,035 sq. ft. x 1"/12"/ft. = 419.58 cu. ft.). The holding capacity of the permeable patios is 495 cu.ft. which well exceeds the 1" minimum requirement of pure storage volume.

4. CONCLUSION

The proposed development will increase the amount of impervious area to this site, resulting in higher peak runoff rates. However, with the installation of the proposed stormwater retention systems, the original flow patterns will be maintained and there will be no increase in peak runoff for the 50-year storm event. In addition to controlling stormwater peak runoff, the proposed design incorporates stormwater treatment to control pollution and provide groundwater recharge capacity. The implementation of these techniques and the overall site design layout will result in a finished project that will minimize sediment and erosion impacts during construction and will have no adverse impacts to adjoining properties upon completion.



Routing Diagram for 24HillCrestLn(05-13-22)_Exist&PropConditions
Prepared by {enter your company name here}, Printed 5/13/2022
HydroCAD® 10.00-20 s/n 09068 © 2017 HydroCAD Software Solutions LLC

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 PA1: Impervious Area #1 to Runoff Area=4,045 sf 100.00% Impervious Runoff Depth>7.06"
Tc=6.0 min CN=98 Runoff=0.65 cfs 2,379 cf

Subcatchment PA2: Impervious Area #2 to Runoff Area=1,820 sf 100.00% Impervious Runoff Depth>7.06"
Tc=6.0 min CN=98 Runoff=0.29 cfs 1,070 cf

Subcatchment PB: Proposed Bypass Area Runoff Area=83,652 sf 6.33% Impervious Runoff Depth>3.22"
Tc=15.0 min CN=64 Runoff=5.41 cfs 22,456 cf

Subcatchment PSA: Pool Surface Area Runoff Area=560 sf 100.00% Impervious Runoff Depth>7.06"
Tc=3.0 min CN=98 Runoff=0.10 cfs 329 cf

Subcatchment XC: Existing Conditions Runoff Area=90,077 sf 8.45% Impervious Runoff Depth>3.33"
Tc=15.0 min CN=65 Runoff=6.04 cfs 24,967 cf

Pond DB1: Upper Permeable Patio Peak Elev=459.92' Storage=596 cf Inflow=0.65 cfs 2,379 cf
Discarded=0.15 cfs 2,378 cf Primary=0.00 cfs 0 cf Outflow=0.15 cfs 2,378 cf

Pond DB2: Lower Permeable Patio Peak Elev=457.98' Storage=242 cf Inflow=0.29 cfs 1,070 cf
Discarded=0.06 cfs 1,070 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 1,070 cf

Pond PS: Pool Storage Below Overflow Peak Elev=458.00' Storage=186 cf Inflow=0.10 cfs 329 cf
Outflow=0.06 cfs 145 cf

Link OR: Overall Runoff Inflow=5.47 cfs 22,600 cf
Primary=5.47 cfs 22,600 cf

Summary for Subcatchment PA1: Impervious Area #1 to Detention System 1

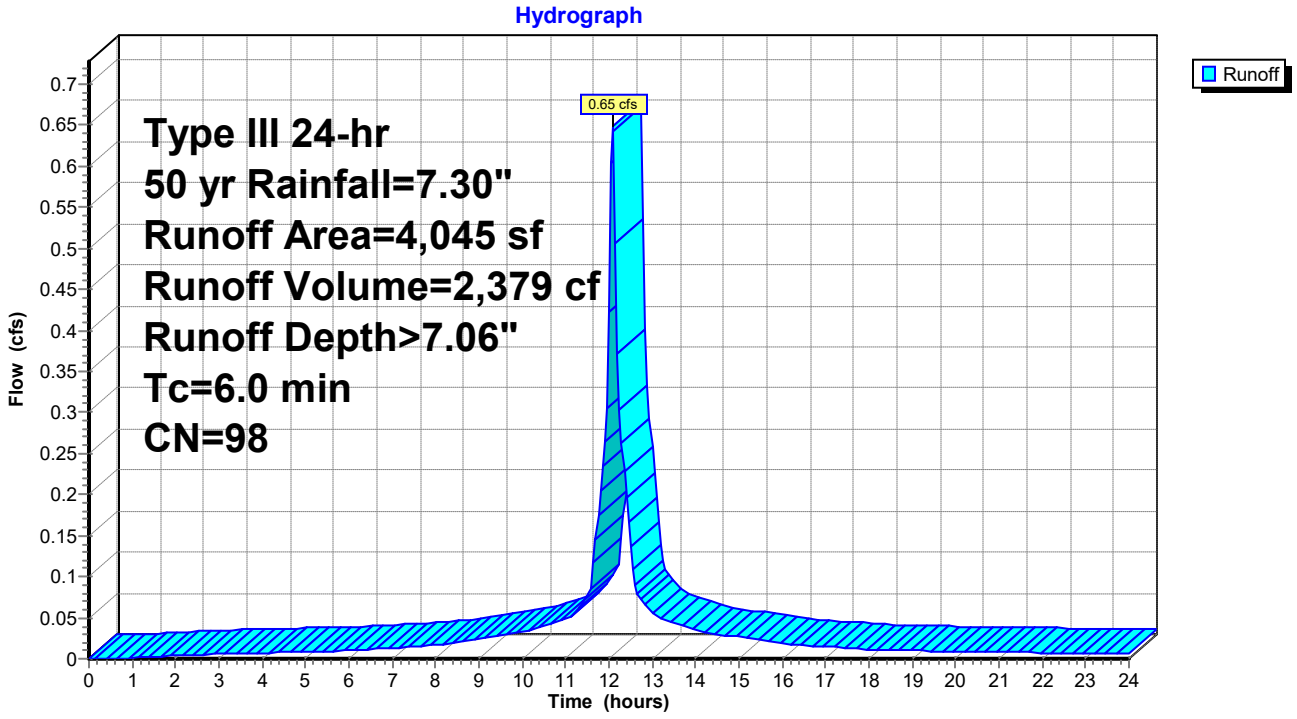
Runoff = 0.65 cfs @ 12.09 hrs, Volume= 2,379 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	125	98	Covered Patio
*	2,150	98	Pool Patio & Walls
*	1,770	98	Building
	4,045	98	Weighted Average
	4,045		100.00% Impervious Area

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

Subcatchment PA1: Impervious Area #1 to Detention System 1



Summary for Subcatchment PA2: Impervious Area #2 to Detention System 2

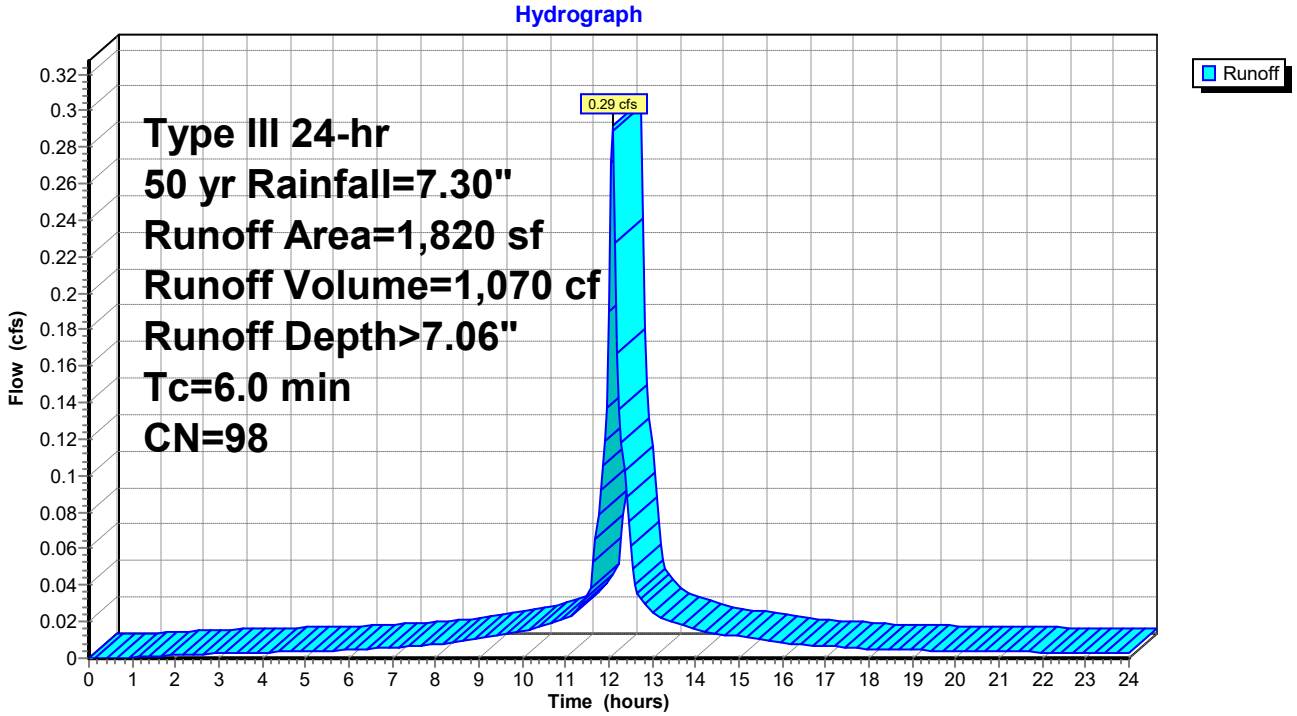
Runoff = 0.29 cfs @ 12.09 hrs, Volume= 1,070 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	1,600	98	Pool Patio & Walls
*	220	98	Building
	1,820	98	Weighted Average
	1,820		100.00% Impervious Area

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

Subcatchment PA2: Impervious Area #2 to Detention System 2



Summary for Subcatchment PB: Proposed Bypass Area

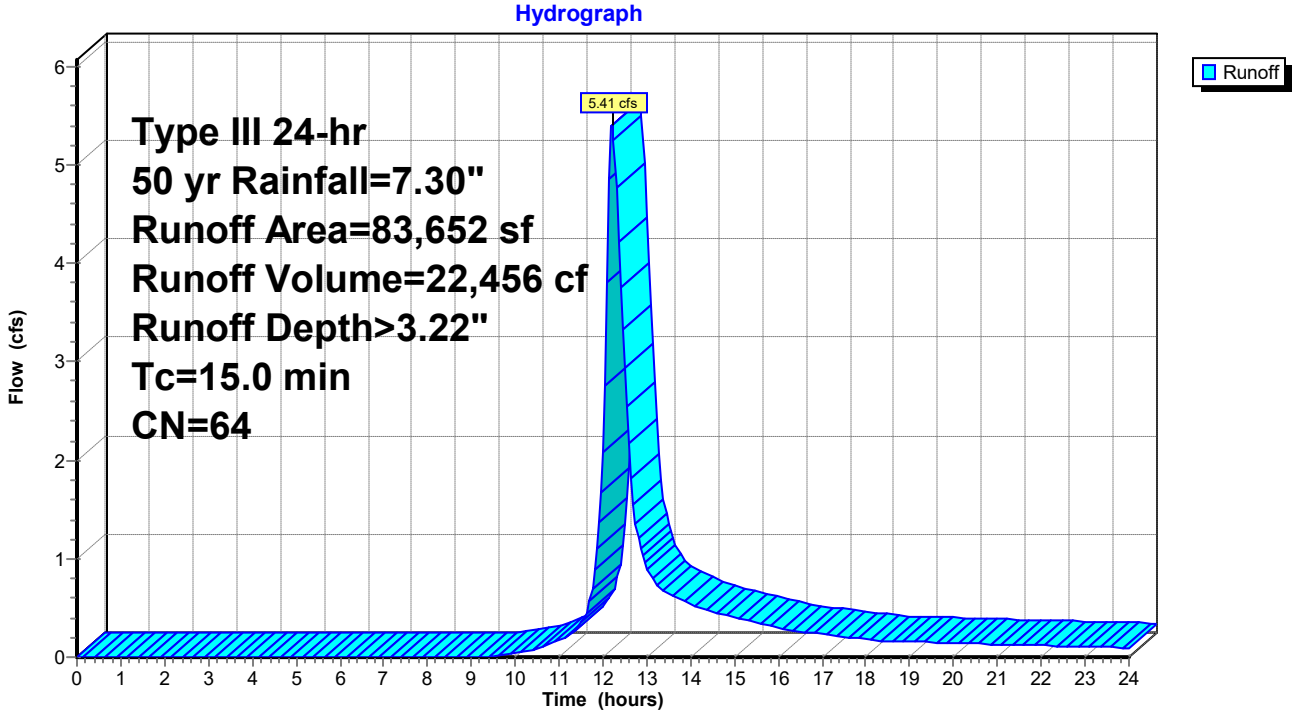
Runoff = 5.41 cfs @ 12.21 hrs, Volume= 22,456 cf, Depth> 3.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	1,090	98	Building
*	3,372	98	Driveway
*	234	98	Patio/Walks
*	350	98	Driveway Expansion
*	250	98	Shed
*	2,996	89	<50% Grass cover, Poor, HSG D (Wetlands)
	75,360	61	>75% Grass cover, Good, HSG B
	83,652	64	Weighted Average
	78,356		93.67% Pervious Area
	5,296		6.33% Impervious Area

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

Subcatchment PB: Proposed Bypass Area



Summary for Subcatchment PSA: Pool Surface Area

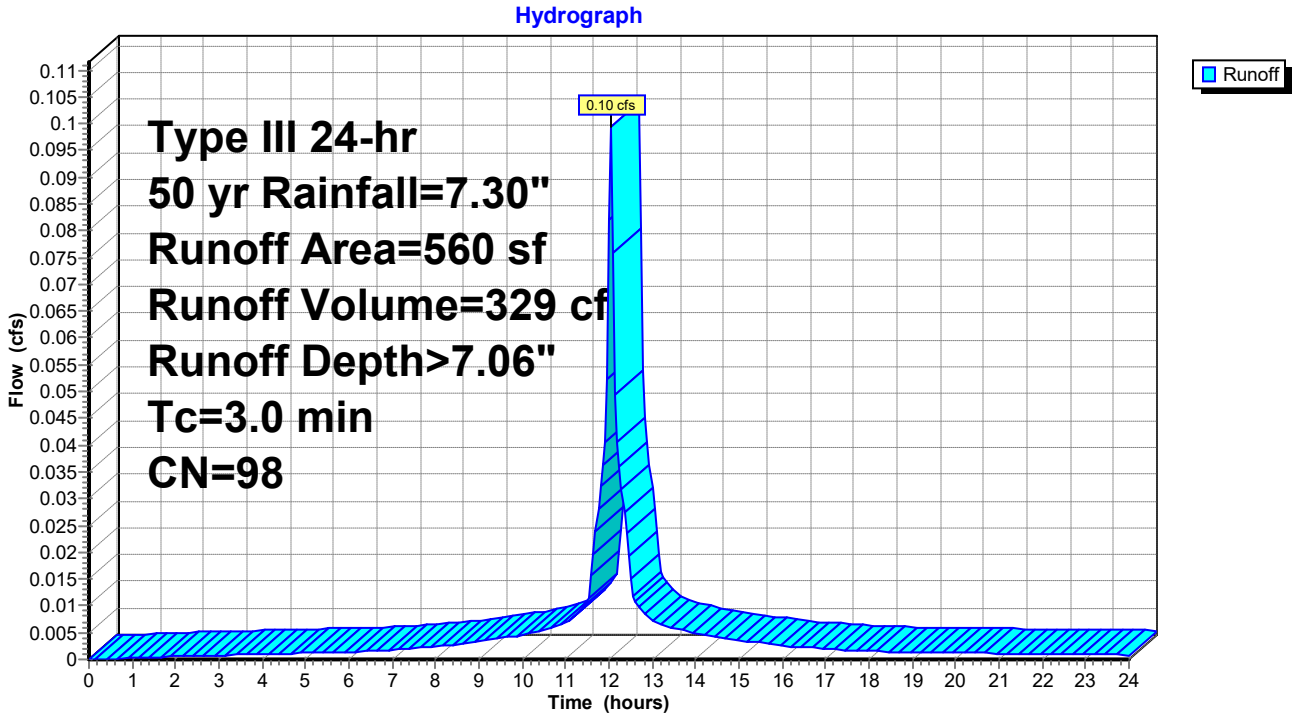
Runoff = 0.10 cfs @ 12.05 hrs, Volume= 329 cf, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	560	98	Pool
	560		100.00% Impervious Area

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

Subcatchment PSA: Pool Surface Area



Summary for Subcatchment XC: Existing Conditions Runoff

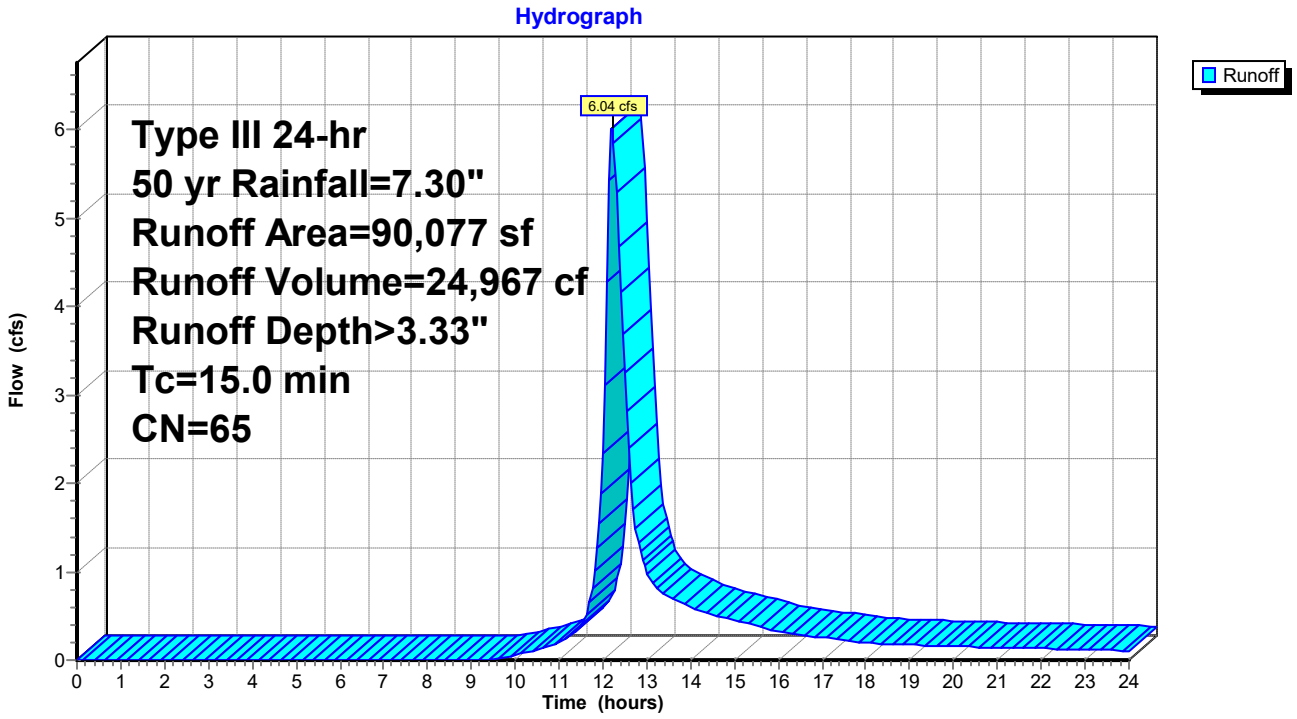
Runoff = 6.04 cfs @ 12.21 hrs, Volume= 24,967 cf, Depth> 3.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 yr Rainfall=7.30"

	Area (sf)	CN	Description
*	3,080	98	Building
*	3,372	98	Driveway
*	1,162	98	Patio/Walks
*	2,996	89	<50% Grass cover, Poor, HSG D (Wetlands)
	79,467	61	>75% Grass cover, Good, HSG B
	90,077	65	Weighted Average
	82,463		91.55% Pervious Area
	7,614		8.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry, Good Condition Lawn**

Subcatchment XC: Existing Conditions Runoff



Summary for Pond DB1: Upper Permeable Patio

Inflow Area = 4,045 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.65 cfs @ 12.09 hrs, Volume= 2,379 cf
Outflow = 0.15 cfs @ 12.47 hrs, Volume= 2,378 cf, Atten= 77%, Lag= 23.3 min
Discarded = 0.15 cfs @ 12.47 hrs, Volume= 2,378 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 459.92' @ 12.47 hrs Surf.Area= 3,200 sf Storage= 596 cf

Plug-Flow detention time= 26.7 min calculated for 2,373 cf (100% of inflow)
Center-of-Mass det. time= 26.5 min (768.5 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1	459.25'	320 cf	**Permeable Patio Crushed Stone (Conic)** Listed below (Recalc) 800 cf Overall x 40.0% Voids
#2	459.75'	800 cf	**Permeable Patio Open Storage (Conic)** Listed below (Recalc)
		1,120 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
459.25	1,600	0	0	1,600
459.75	1,600	800	800	1,671

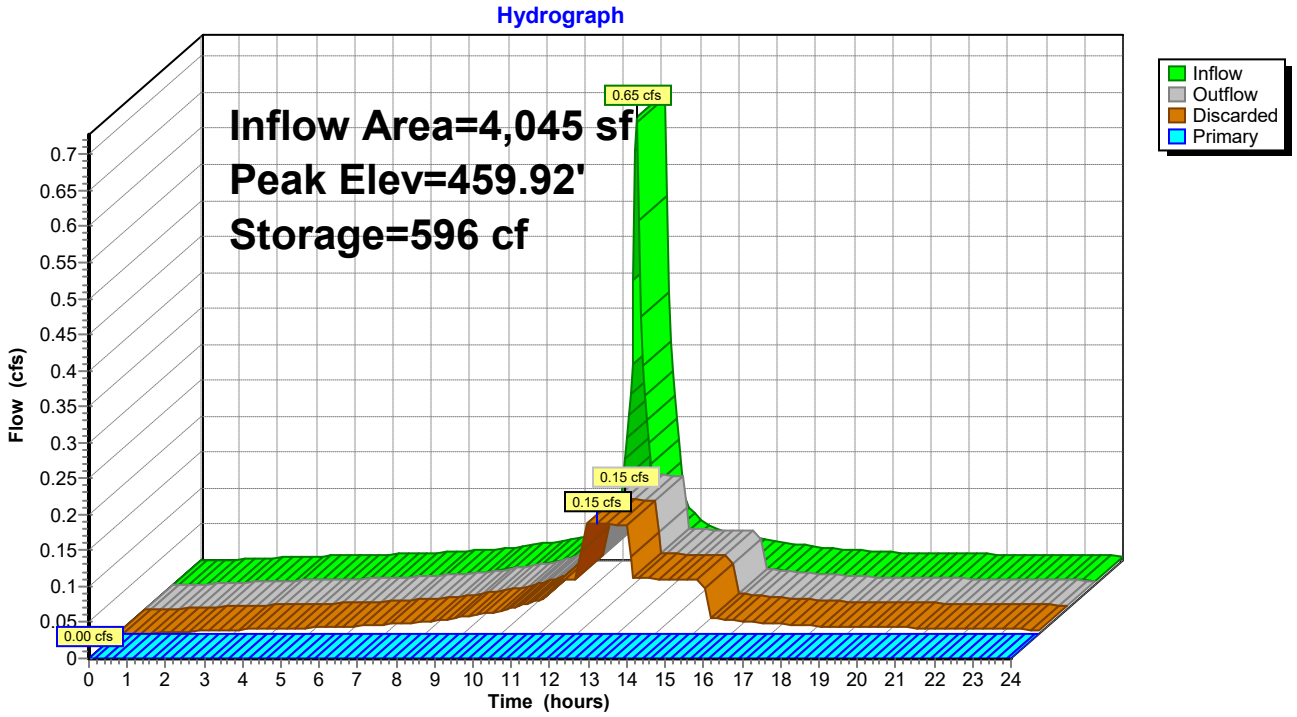
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
459.75	1,600	0	0	1,600
460.25	1,600	800	800	1,671

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	**25.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Discarded	459.25'	**2.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.15 cfs @ 12.47 hrs HW=459.92' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=459.25' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DB1: Upper Permeable Patio



Stage-Area-Storage for Pond DB1: Upper Permeable Patio

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
459.25	1,600	0
459.26	1,601	6
459.27	1,603	13
459.28	1,604	19
459.29	1,606	26
459.30	1,607	32
459.31	1,609	38
459.32	1,610	45
459.33	1,611	51
459.34	1,613	58
459.35	1,614	64
459.36	1,616	70
459.37	1,617	77
459.38	1,618	83
459.39	1,620	90
459.40	1,621	96
459.41	1,623	102
459.42	1,624	109
459.43	1,626	115
459.44	1,627	122
459.45	1,628	128
459.46	1,630	134
459.47	1,631	141
459.48	1,633	147
459.49	1,634	154
459.50	1,635	160
459.51	1,637	166
459.52	1,638	173
459.53	1,640	179
459.54	1,641	186
459.55	1,643	192
459.56	1,644	198
459.57	1,645	205
459.58	1,647	211
459.59	1,648	218
459.60	1,650	224
459.61	1,651	230
459.62	1,652	237
459.63	1,654	243
459.64	1,655	250
459.65	1,657	256
459.66	1,658	262
459.67	1,660	269
459.68	1,661	275
459.69	1,662	282
459.70	1,664	288
459.71	1,665	294
459.72	1,667	301
459.73	1,668	307
459.74	1,669	314
459.75	3,271	320
459.76	3,272	336
459.77	3,274	352
459.78	3,275	368
459.79	3,277	384
459.80	3,278	400
459.81	3,279	416
459.82	3,281	432
459.83	3,282	448
459.84	3,284	464
459.85	3,285	480
459.86	3,286	496
459.87	3,288	512
459.88	3,289	528
459.89	3,291	544
459.90	3,292	560
459.91	3,294	576
459.92	3,295	592
459.93	3,296	608
459.94	3,298	624
459.95	3,299	640
459.96	3,301	656
459.97	3,302	672
459.98	3,304	688
459.99	3,305	704
460.00	3,306	720
460.01	3,308	736
460.02	3,309	752
460.03	3,311	768
460.04	3,312	784
460.05	3,313	800
460.06	3,315	816
460.07	3,316	832
460.08	3,318	848
460.09	3,319	864
460.10	3,321	880
460.11	3,322	896
460.12	3,323	912
460.13	3,325	928
460.14	3,326	944
460.15	3,328	960
460.16	3,329	976
460.17	3,330	992
460.18	3,332	1,008
460.19	3,333	1,024
460.20	3,335	1,040
460.21	3,336	1,056
460.22	3,338	1,072
460.23	3,339	1,088
460.24	3,340	1,104
460.25	**3,342**	**1,120**

Summary for Pond DB2: Lower Permeable Patio

Inflow Area = 1,820 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.29 cfs @ 12.09 hrs, Volume= 1,070 cf
Outflow = 0.06 cfs @ 12.50 hrs, Volume= 1,070 cf, Atten= 79%, Lag= 25.1 min
Discarded = 0.06 cfs @ 12.50 hrs, Volume= 1,070 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 457.98' @ 12.50 hrs Surf.Area= 1,250 sf Storage= 242 cf

Plug-Flow detention time= 20.1 min calculated for 1,070 cf (100% of inflow)
Center-of-Mass det. time= 20.0 min (762.0 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1	457.50'	250 cf	**Permeable Patio Crushed Stone (Conic)** Listed below (Recalc) 625 cf Overall x 40.0% Voids
#2	458.00'	625 cf	**Permeable Patio Open Storage (Conic)** Listed below (Recalc)
		875 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
457.50	1,250	0	0	1,250
458.00	1,250	625	625	1,313

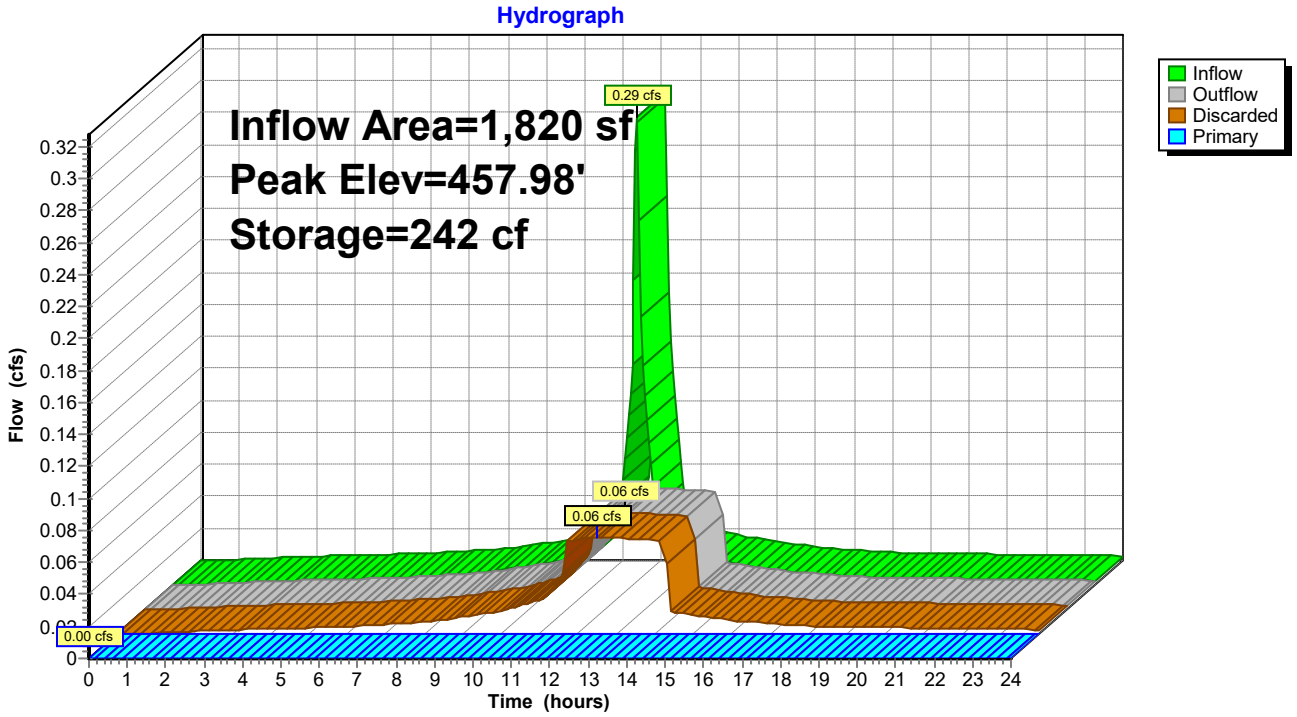
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	1,250	0	0	1,250
458.50	1,250	625	625	1,313

Device	Routing	Invert	Outlet Devices
#1	Primary	458.25'	**57.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Discarded	457.50'	**2.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.06 cfs @ 12.50 hrs HW=457.98' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=457.50' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DB2: Lower Permeable Patio



Stage-Area-Storage for Pond DB2: Lower Permeable Patio

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
457.50	1,250	0
457.51	1,251	5
457.52	1,253	10
457.53	1,254	15
457.54	1,255	20
457.55	1,256	25
457.56	1,258	30
457.57	1,259	35
457.58	1,260	40
457.59	1,261	45
457.60	1,263	50
457.61	1,264	55
457.62	1,265	60
457.63	1,266	65
457.64	1,268	70
457.65	1,269	75
457.66	1,270	80
457.67	1,271	85
457.68	1,273	90
457.69	1,274	95
457.70	1,275	100
457.71	1,276	105
457.72	1,278	110
457.73	1,279	115
457.74	1,280	120
457.75	1,281	125
457.76	1,283	130
457.77	1,284	135
457.78	1,285	140
457.79	1,286	145
457.80	1,288	150
457.81	1,289	155
457.82	1,290	160
457.83	1,291	165
457.84	1,293	170
457.85	1,294	175
457.86	1,295	180
457.87	1,296	185
457.88	1,298	190
457.89	1,299	195
457.90	1,300	200
457.91	1,301	205
457.92	1,303	210
457.93	1,304	215
457.94	1,305	220
457.95	1,306	225
457.96	1,308	230
457.97	1,309	235
457.98	1,310	240
457.99	1,311	245
458.00	2,563	250
458.01	2,564	262
458.02	2,565	275
458.03	2,566	287
458.04	2,568	300
458.05	2,569	313
458.06	2,570	325
458.07	2,571	337
458.08	2,573	350
458.09	2,574	362
458.10	2,575	375
458.11	2,576	388
458.12	2,578	400
458.13	2,579	412
458.14	2,580	425
458.15	2,581	437
458.16	2,583	450
458.17	2,584	463
458.18	2,585	475
458.19	2,586	487
458.20	2,588	500
458.21	2,589	512
458.22	2,590	525
458.23	2,591	538
458.24	2,593	550
458.25	2,594	563
458.26	2,595	575
458.27	2,597	587
458.28	2,598	600
458.29	2,599	613
458.30	2,600	625
458.31	2,602	638
458.32	2,603	650
458.33	2,604	662
458.34	2,605	675
458.35	2,607	688
458.36	2,608	700
458.37	2,609	713
458.38	2,610	725
458.39	2,612	737
458.40	2,613	750
458.41	2,614	763
458.42	2,615	775
458.43	2,617	788
458.44	2,618	800
458.45	2,619	812
458.46	2,620	825
458.47	2,622	838
458.48	2,623	850
458.49	2,624	863
458.50	**2,625**	**875**

Summary for Pond PS: Pool Storage Below Overflow

Inflow Area = 560 sf,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.10 cfs @ 12.05 hrs, Volume= 329 cf
Outflow = 0.06 cfs @ 12.20 hrs, Volume= 145 cf, Atten= 43%, Lag= 9.2 min
Primary = 0.06 cfs @ 12.20 hrs, Volume= 145 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 458.00' @ 12.20 hrs Surf.Area= 560 sf Storage= 186 cf

Plug-Flow detention time= 301.0 min calculated for 144 cf (44% of inflow)
Center-of-Mass det. time= 153.6 min (893.0 - 739.5)

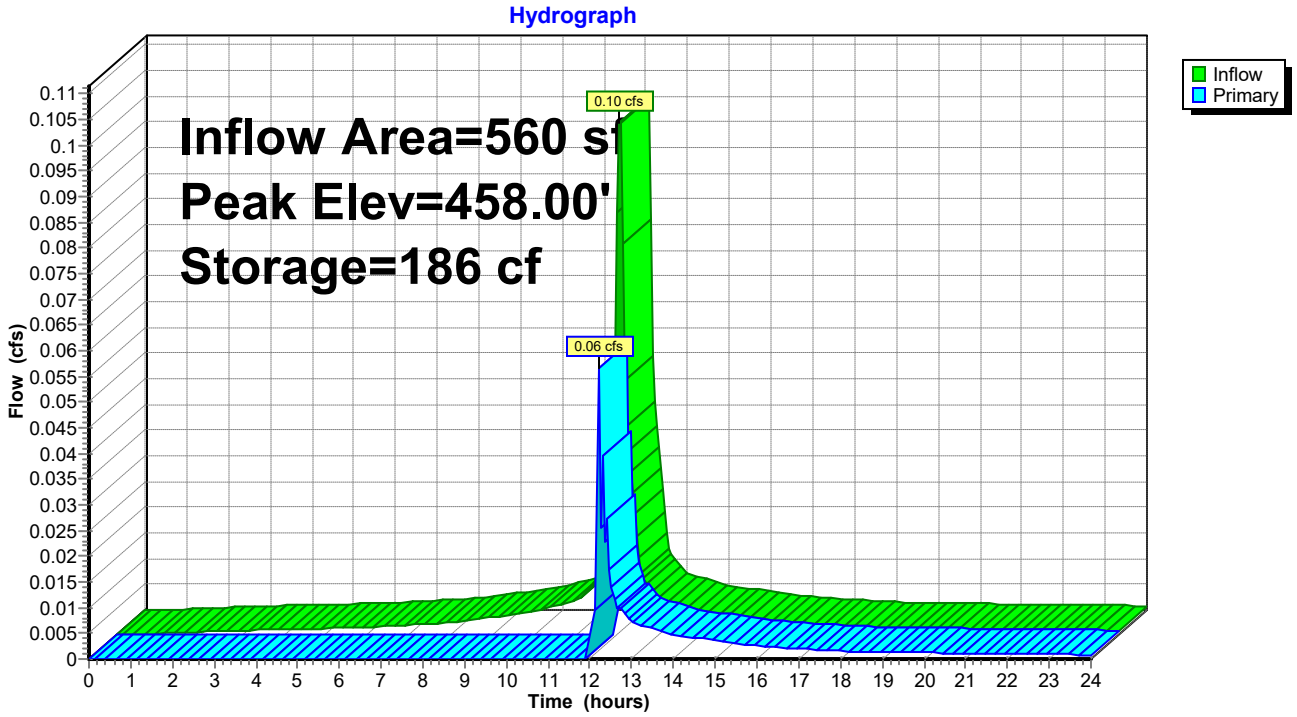
Volume	Invert	Avail.Storage	Storage Description
#1	457.67'	560 cf	**Pool Storage (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
457.67	560	0	0
458.67	560	560	560

Device	Routing	Invert	Outlet Devices
#1	Primary	458.00'	**102.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.02 cfs @ 12.20 hrs HW=458.00' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Weir Controls 0.02 cfs @ 0.13 fps)

Pond PS: Pool Storage Below Overflow



Stage-Area-Storage for Pond PS: Pool Storage Below Overflow

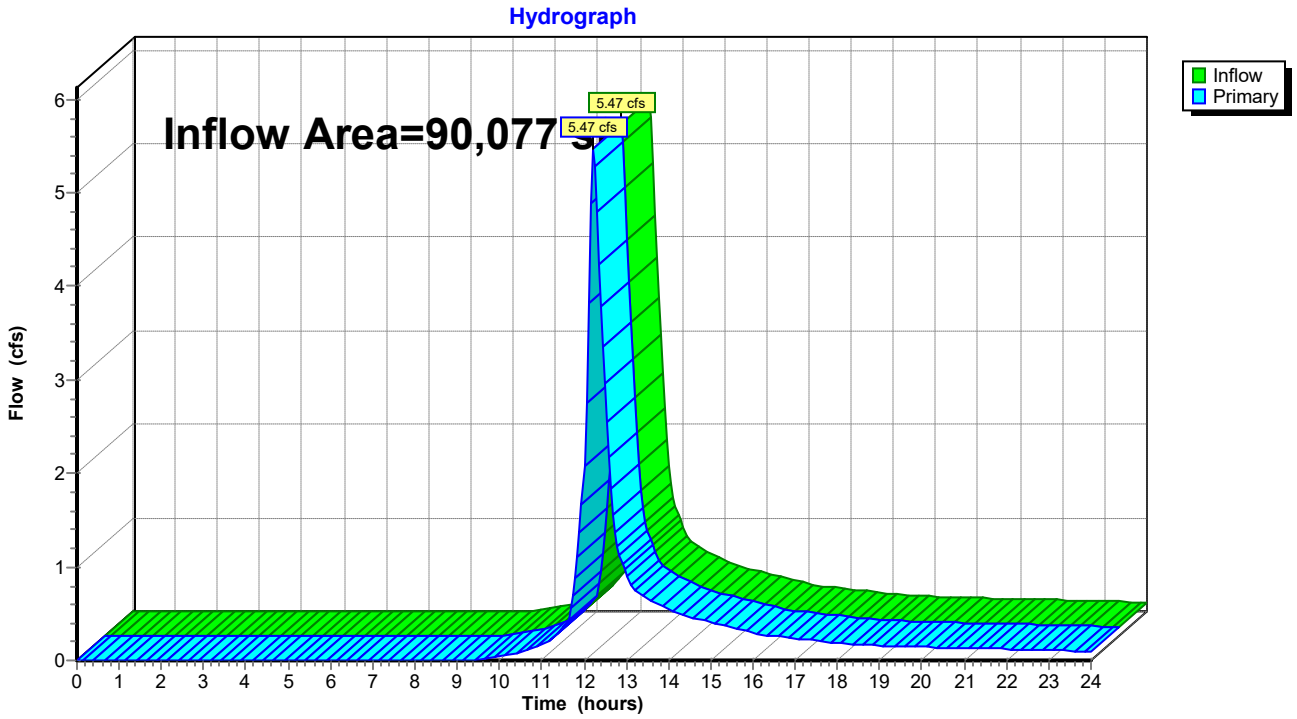
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.67	**560**	0
457.68	560	6
457.69	560	11
457.70	560	17
457.71	560	22
457.72	560	28
457.73	560	34
457.74	560	39
457.75	560	45
457.76	560	50
457.77	560	56
457.78	560	62
457.79	560	67
457.80	560	73
457.81	560	78
457.82	560	84
457.83	560	90
457.84	560	95
457.85	560	101
457.86	560	106
457.87	560	112
457.88	560	118
457.89	560	123
457.90	560	129
457.91	560	134
457.92	560	140
457.93	560	146
457.94	560	151
457.95	560	157
457.96	560	162
457.97	560	168
457.98	560	174
457.99	560	179
458.00	560	185
458.01	560	190
458.02	560	196
458.03	560	202
458.04	560	207
458.05	560	213
458.06	560	218
458.07	560	224
458.08	560	230
458.09	560	235
458.10	560	241
458.11	560	246
458.12	560	252
458.13	560	258
458.14	560	263
458.15	560	269
458.16	560	274
458.17	560	280
458.18	560	286
458.19	560	291
458.20	560	297
458.21	560	302
458.22	560	308
458.23	560	314
458.24	560	319
458.25	560	325
458.26	560	330
458.27	560	336
458.28	560	342
458.29	560	347
458.30	560	353
458.31	560	358
458.32	560	364
458.33	560	370
458.34	560	375
458.35	560	381
458.36	560	386
458.37	560	392
458.38	560	398
458.39	560	403
458.40	560	409
458.41	560	414
458.42	560	420
458.43	560	426
458.44	560	431
458.45	560	437
458.46	560	442
458.47	560	448
458.48	560	454
458.49	560	459
458.50	560	465
458.51	560	470
458.52	560	476
458.53	560	482
458.54	560	487
458.55	560	493
458.56	560	498
458.57	560	504
458.58	560	510
458.59	560	515
458.60	560	521
458.61	560	526
458.62	560	532
458.63	560	538
458.64	560	543
458.65	560	549
458.66	560	554
458.67	560	**560**

Summary for Link OR: Overall Runoff

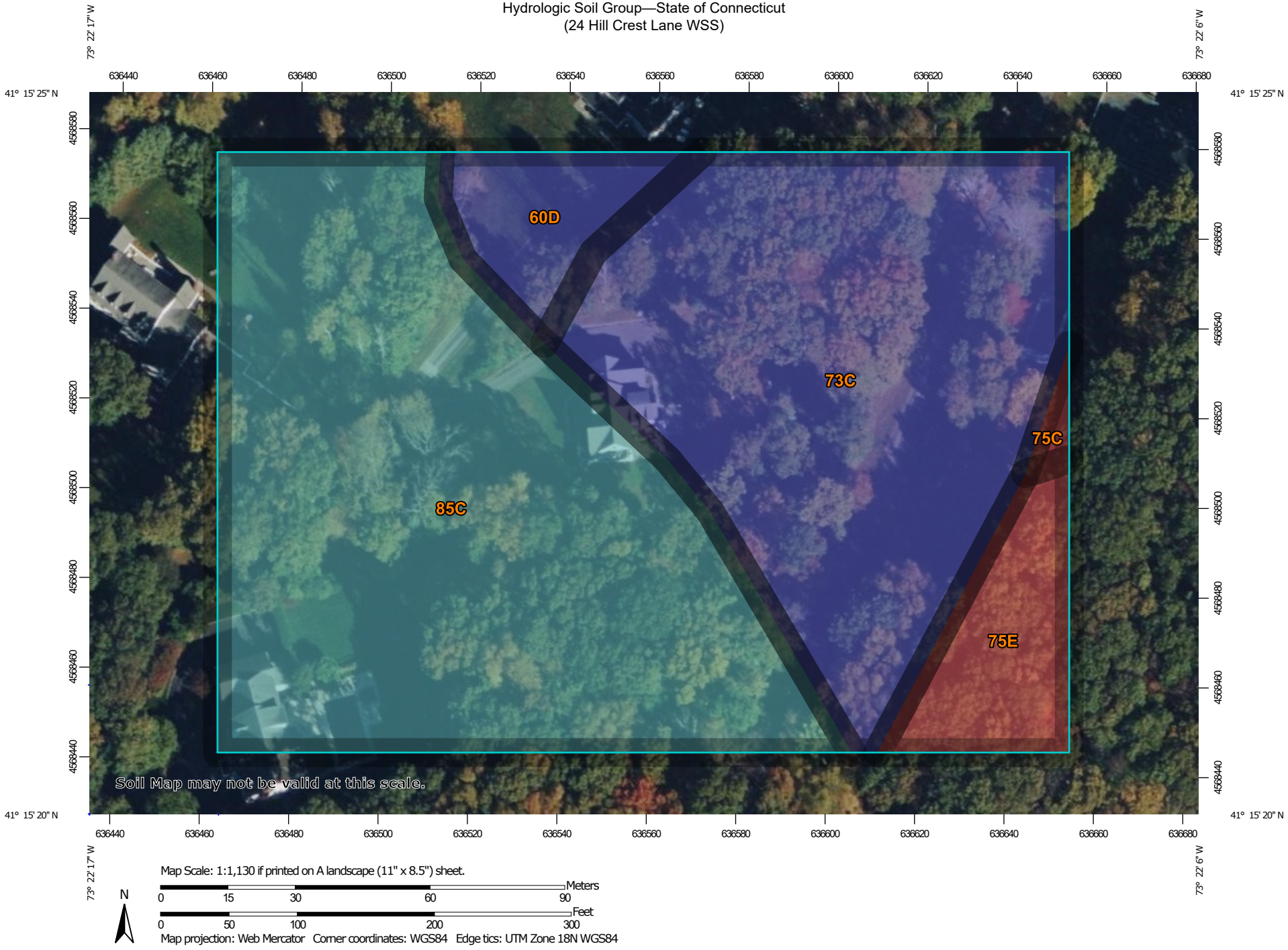
Inflow Area = 90,077 sf, 13.01% Impervious, Inflow Depth > 3.01" for 50 yr event
Inflow = 5.47 cfs @ 12.21 hrs, Volume= 22,600 cf
Primary = 5.47 cfs @ 12.21 hrs, Volume= 22,600 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link OR: Overall Runoff



Hydrologic Soil Group—State of Connecticut
(24 Hill Crest Lane WSS)



Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

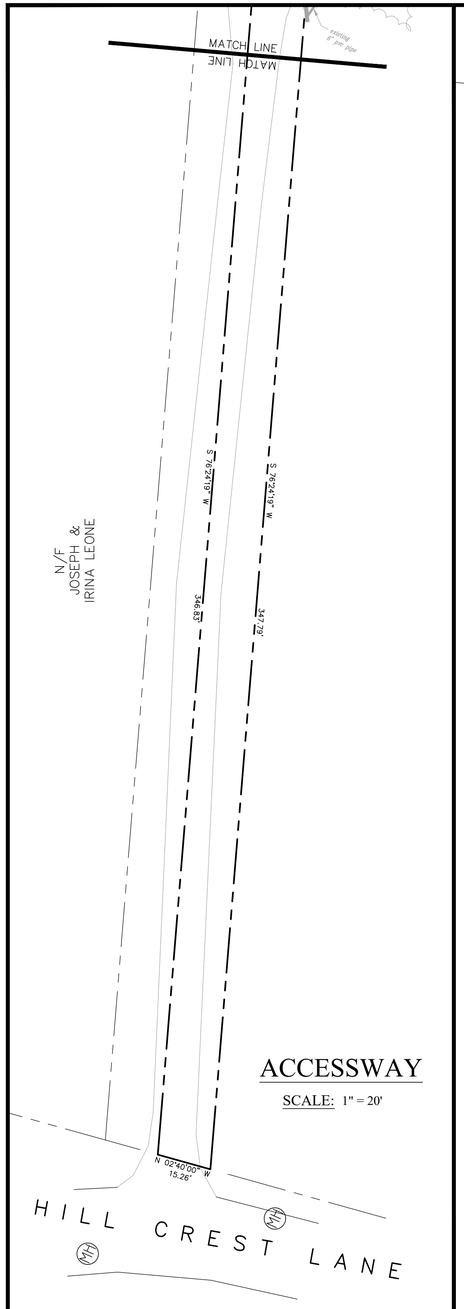
Meters
0 15 30 60 90

Feet
0 50 100 200 300

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
60D	Canton and Charlton soils, 15 to 25 percent slopes	B	0.3	5.2%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	2.4	38.2%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	D	0.0	0.5%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	D	0.4	6.5%
85C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony	C	3.1	49.7%
Totals for Area of Interest			**6.3**	**100.0%**



Approximate Excavation & Fill Volumes:

154 Cubic Yards of Excavation
107 Cubic Yards of Fill

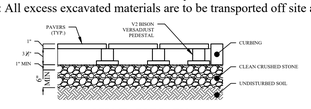
ACCESSWAY

SCALE: 1" = 20'

SEQUENCE OF ACTIVITIES:

1. Install erosion control measures prior to any construction activity.
2. Excavate & install the inground pool.
3. Backfill the pool and rough grade the property.
4. Install all retaining walls needed between the upper and lower patio.
5. Scarify the soils beneath the permeable patio.
6. Install crushed stone bed beneath patio with associated patio footings.
7. Stabilize all disturbed areas other than around the pool and patio.
8. Install patio surface after approval from drainage inspection.
7. Fully stabilize property by seeding all lawn areas and remove all erosion control measures when all disturbed areas have been fully stabilized.

NOTE: All excess excavated materials are to be transported off site and disposed of legally.



PERMEABLE PATIO
N.T.S.

PERCOLATION TEST DATA:
PERFORMED BY: KOUSIDIS ENGINEERING, LLC
DATE: APRIL 24, 2022

P#1
DIAMETER: 8" SANITARIAN: LORA HAYES
DEPTH: 24" PRE SOAK TIME: SATURATED

TIME	TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
10:30		6.50"		
10:40	10.0 MIN.	9.25"	2.75"	3.64
10:50	10.0 MIN.	10.75"	1.50"	6.67
11:00	10.0 MIN.	12.00"	1.25"	8.00
11:10	10.0 MIN.	13.00"	1.00"	10.00
11:20	10.0 MIN.	14.00"	1.00"	10.00
11:30	10.0 MIN.	15.00"	1.00"	10.00

P#2
DIAMETER: 9" SANITARIAN: LORA HAYES
DEPTH: 40" PRE SOAK TIME: SATURATED

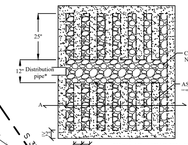
TIME	TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
10:30		16.50"		
10:40	10.0 MIN.	17.625"	1.125"	8.89
10:50	10.0 MIN.	18.50"	0.875"	11.43
11:00	10.0 MIN.	19.375"	0.875"	11.43
11:10	10.0 MIN.	20.00"	0.625"	16.00
11:20	10.0 MIN.	20.50"	0.50"	20.00
11:30	10.0 MIN.	21.00"	0.50	20.00

DEEP TEST PIT LOG
CONDUCTED BY: KOUSIDIS ENGINEERING, LLC
DATE CONDUCTED: APRIL 14, 2022

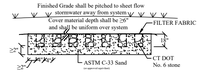
TEST PIT #1
00-10" TOPSOIL
10-64" TAN COARSE SAND W/ ANGULAR STONE
64-84" LIGHT BROWN MEDIUM SAND W/ TRACE OF SILT
*NO MOTTLES
*NO GROUND
*NO LEDGE
*NO ROOTS

TEST PIT #2
00-04" TOPSOIL
04-22" ORANGE BROWN SANDY LOAM
22-68" TAN MEDIUM SAND W/ ANGULAR STONES & TRACE OF SILT
68-98" LIGHT BROWN SATURATED MEDIUM SAND & SILT
*MOTTLES @ 68"
*GROUND @ 68"
*NO LEDGE
*ROOTS @ 54"

TEST PIT #3
00-06" TOPSOIL
06-24" MISC. FILL
24-30" ORIGINAL TOPSOIL
30-42" ORANGE BROWN SILTY LOAM
42-60" TAN MOTTLED FINE SAND & SILT
*MOTTLES @ 42"
*GROUND @ 42"
*NO LEDGE
*NO ROOTS



*3" min. I.D., ASTM D-3034, SDR 35 pipe for gravity applications
0.75" min. I.D., ASTM D-3665, SCH 40 PVC pipe for pressure applications



GEOMATRIX GST LEACHING SYSTEM
(GST 6218)
N.T.S.

SEPTIC DESIGN NOTES (GEOMATRIX GST 6218)
Proposed # of Bedrooms: 6 (5 Existing, 1 Future)
Percolation Rate: 1"/10 min. (Design Rate)
Effective Leaching Area Required: 742.5 sq. ft.
Effective Leaching Area Provided: (65LF)(14.0SF/LF)=910 SF
MLSS REQUIREMENTS:
RESTRICTIVE LAYER: [((TP#1 + TP#2)/2)+TP#105]/2
RESTRICTIVE LAYER: [((60"+60")/2)+36]/2 = 48"
SLOPE = >15%
HYDRAULIC FACTOR: 14
PERCOLATION FACTOR: 1.00 (1"/10MIN)
FLOW FACTOR: 2.25 (6-BEDROOM DESIGN)
MLSS: 14x1.00x2.25 = 31.5
MLSS PROVIDED: 65LF

DEEP TEST PIT LOG
CONDUCTED BY: LAND-TECH CONSULTANTS, INC.
DATE CONDUCTED: APRIL 03, 2008

TEST PIT #101
00-04" TOPSOIL
04-26" RED BROWN SANDY LOAM
26-40" LOOSE SANDY TILL
40-76" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 76"
*NO LEDGE
*ROOTS TO 56"

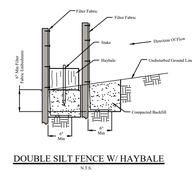
TEST PIT #102
00-04" TOPSOIL
04-24" RED BROWN SANDY LOAM
24-46" LOOSE SANDY TILL
46-84" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*NO GROUNDWATER
*NO LEDGE
*ROOTS TO 36"

TEST PIT #103
00-04" TOPSOIL
04-30" RED BROWN SANDY LOAM
30-45" LOOSE BROWN SANDY TILL
45-84" TIGHTLY COMPACTED BROWN SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 84"
*NO LEDGE
*ROOTS TO 62"

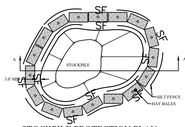
TEST PIT #104
00-04" TOPSOIL
04-26" RED BROWN SANDY LOAM
26-38" LOOSE BROWN SANDY TILL
30-70" MODERATELY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 76"
*NO LEDGE
*ROOTS TO 54"

TEST PIT #105
00-04" ORGANIC
04-24" RED BROWN SANDY LOAM
24-62" TIGHTLY COMPACTED SANDY TILL
*NO MOTTLES
*GROUNDWATER WEEPING @ 36"
*NO LEDGE
*ROOTS TO 28"

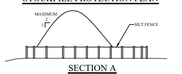
MUD-TRACKING PAD
N.T.S.



DOUBLE SILT FENCE W/ HAYBALE
N.T.S.



STOCKPILE PROTECTION PLAN



SECTION A
N.T.S.

GENERAL NOTES:

1. ALL SURVEY DATA, BOUNDARY LINES AND TOPOGRAPHY, ARE FROM A "LIMITED BOUNDARY SURVEY ZONING LOCATION SURVEY" PREPARED FOR CHARLES REDLITZ AT 24 HILL CREST LANE, WESTON, CT, PREPARED BY SILVA LAND SURVEYING, LLC, DATED JULY 20, 2021.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE TOWN OF WESTON REQUIREMENTS, THE STATE OF CONNECTICUT BASIC BUILDING CODE AND THE CONNECTICUT GUIDELINES FOR SOIL AND EROSION AND SEDIMENT CONTROL.
3. INFORMATION OF EXISTING UTILITIES HAS BEEN COMPILED FROM VARIOUS SOURCES INCLUDING UTILITY COMPANY RECORDS, MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES.
4. THE PROPERTY WILL BE SERVICED BY WELL WATER AND PRIVATE SEPTIC SYSTEM. NO KNOWN SEPTIC SYSTEMS AND STORM DRAIN SYSTEMS WITHIN 50' OF THE PROPOSED SEPTIC SYSTEM. NO KNOWN WELLS ARE LOCATED WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY EXCAVATION SAFEGUARDS, NECESSARY BARRICADES, FLAGMEN, ETC., FOR TRAFFIC CONTROL AND SITE SAFETY. ALL WORK SHALL BE DONE IN ACCORDANCE WITH OSHA REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH OSHA REQUIREMENTS.
6. REMOVE STUMPS AND BRUSH FROM SITE, OR CHIP AND USE DURING LANDSCAPING. DO NOT BURY STUMPS ON SITE.
7. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE PLANS UNLESS CHANGES HAVE BEEN APPROVED IN WRITING BY THE DESIGN ENGINEER PRIOR TO THE WORK BEING DONE.
8. ALL DISTURBED AREAS SHALL BE MULCHED AND SEEDED AS SOON AS POSSIBLE.
9. AREAS OF ASPHALT PAVEMENT THAT ARE DISTURBED BY THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED IN ACCORDANCE WITH THE ASPHALT TRENCH REPAIR DETAIL. THE FINISHED GRADE OF ASPHALT PAVING SHALL BLEND TO EXISTING GRADE AND THE EDGE OF THE CONCRETE PAVEMENT SMOOTHLY WITH NO SLOPES EXCEEDING 4%.
10. A MINIMUM OF 6" OF CRUSHED STONE MUST BE INSTALLED UNDER ALL EXTERIOR PORCHES AND STAIRS.

EARTHWORK & GRADING:

11. GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
12. PROPOSED EARTH SLOPES SHALL BE NO STEEPER THAN 5:1 (HORZ.:VERT.), UNLESS OTHERWISE DEPICTED ON SITE PLAN.
13. GENERAL FILL BEYOND PAVED AREAS SHALL BE FREE OF BRUSH RUBBISH, STUMPS. FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95 % OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D698. AFTER COMPACTING, THE FILL SHALL BE 4" BELOW THE REQUIRED GRADE AS SHOWN ON THE PLAN.
14. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2" TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
15. FILL OR TOPSOIL SHALL NOT BE PLACED NOR COMPACTED WHILE IN A FROZEN OR MUDDY CONDITION OR WHILE SUBGRADE IS FROZEN.
16. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

STORM SEWER SYSTEMS:

17. ALL PIPE SHALL BE INSTALLED STRAIGHT AND AT THE VERTICAL AND HORIZONTAL ALIGNMENT SHOWN. NO 90° BENDS IN ALL PIPES.
18. MINIMUM COVER ON ALL PIPES SHALL BE TWO FEET (2') UNLESS OTHERWISE NOTED.
19. ALL POLY VINYL CHLORIDE PIPE (PVCP) SHALL BE SDR 35 WITH RUBBER JOINTS AND MEET THE REQUIREMENTS ASTM D3 AND D3212.
20. ALL AREA DRAINS SHALL HAVE A 2' SUMP.
21. CONTACT THE DESIGN ENGINEER THREE DAYS PRIOR TO EXCAVATING FOR THE INFILTRATION SYSTEM. DURING THE EXCAVATION, THE DESIGN ENGINEER MAY REVISE THE ELEVATIONS OF THE SYSTEM IF FIELD CONDITIONS DICTATE.
22. THE ENGINEER OF RECORD IS REQUIRED TO WITNESS THE INSTALLATION OF THE DRAINAGE SYSTEM PRIOR TO BACKFILLING.
23. DIRECT THE PERMEABLE PATIO TO THE PROPOSED PATIO STORAGE AS DEPICTED.

SEDIMENT & EROSION CONTROLS:

24. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE SITE ENGINEER PRIOR TO ANY LAND DISTURBANCE. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENT MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE SITE ENGINEER.
25. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURES WITHOUT PRIOR PERMISSION FROM THE SITE ENGINEER.
26. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC OR PRIVATE ROADS. ALL MATERIALS DEPOSITED ONTO SUCH ROADS SHALL BE REMOVED AS SOON AS POSSIBLE.
27. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY REMOVED WITH PRIOR PERMISSION FROM THE SITE ENGINEER.
28. ALL DISTURBED AREAS WITH A SLOPE STEEPER THAN 3:1 SHALL BE STABILIZED WITH SOD OR SEED AND ANCHORED STRAW MULCH OR OTHER APPROVED STABILIZATION MEASURE, AS SOON AS POSSIBLE BUT NO LATER THAN 5 CALENDAR DAYS.
29. SEDIMENT TRAPS AND BASINS SHALL NOT BE CONSTRUCTED WITHIN 25' OF AN EXISTING FOUNDATION OR ONE THAT IS UNDER CONSTRUCTION.
30. SEDIMENT REMOVED FROM TRAPS, SILTATION FENCES OR BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS BUT NOT WITHIN A FLOODPLAIN, WETLANDS OR TREE-SAVE AREAS.
31. ALL WATER REMOVED FROM EXCAVATED AREAS SHALL BE PASSED THROUGH APPROVED DEWATERING PRACTICES OR PUMPED TO A SEDIMENT BASIN PRIOR TO DISCHARGE TO A FUNCTIONAL STORM DRAIN SYSTEM OR TO STABLE GROUND SURFACE.
32. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES THE CONTRACTOR SHALL STABILIZE AND HAVE ESTABLISHED PERMANENT STABILIZATION FOR ALL DISTURBED AREAS USING SOD OR AN APPROVED SIX MIXTURE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON MUST BE STABILIZED WITH PERMANENT GROWTH AS SOON AS POSSIBLE. WHEN PROPERTY IS BROUGHT TO FINISHED GRADES DURING THE WINTER MONTHS WHEN PERMANENT STABILIZATION IS IMPRACTICAL THEN AN APPROVED TEMPORARY STABILIZATION SHALL BE DONE UNTIL THE SPRING MONTHS WHERE PERMANENT STABILIZATION IS POSSIBLE.

SEWAGE DISPOSAL SYSTEM NOTES:

1. THE PROPOSED SEWAGE DISPOSAL SYSTEMS SHALL CONFORM TO SECTIONS 19-13-B103A TO 19-13-B103F OF THE CONNECTICUT STATE HEALTH CODE.
2. THE PROPOSED SOIL LINES SHALL BE AS DEPICTED ON THE PLAN.
3. THE PROPOSED SEPTIC TANK SHALL BE A TWO-COMPARTMENT TANK. THE TANK SHALL BE WATERTIGHT AND BE SO CERTIFIED BY THE MANUFACTURER. THE SEPTIC TANK SHALL BE AS MANUFACTURED BY EASTERN PRECAST, OR EQUIVALENT AS APPROVED BY THE ENGINEER.
4. TO PREVENT LEAKAGE, THE CONTRACTOR SHALL MORTAR ALL INLET AND OUTLET PIPES FROM THE SEPTIC TANK AND DISTRIBUTION BOXES ONCE PIPES HAVE BEEN INSTALLED.
5. ALL SOLID EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PVC PLASTIC PIPE (ASTM D3034) SDR-35 WITH RUBBER GASKET, BELL AND SPIGOT.
6. ALL PERFORATED EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PERFORATED PVC PLASTIC PIPE (ASTM D2729) WITH BELL AND SPIGOT, NO GASKET.
7. ALL DISTRIBUTION BOXES SHALL BE AS MANUFACTURED BY EASTERN PRECAST OR AN APPROVED EQUAL.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL STAKE THE AREA OF THE PROPOSED SEWAGE DISPOSAL SYSTEM AND THE ADJACENT PROPERTY LINES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ASPETUCK HEALTH DISTRICT WHEN STAKING HAS BEEN COMPLETED SO THAT AN INSPECTION OF THE STAKING CAN BE MADE.
9. AFTER THE SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION OR GRADE AS SHOWN ON THE PLAN, TOPSOILED, FINE RAKED AND SEEDED.
10. THIS DESIGN CONFORMS TO APPLICABLE CODES AND ACCEPTED PRACTICE. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED.
11. THE SEPTIC DESIGN DOES NOT ACCOUNT FOR LARGE TUBS WITH CAPACITY OVER 99 GALLONS.
12. THE RECORD ENGINEER MUST PREPARE THE "SEPTIC AS-BUILT PLAN", THUS THE ENGINEER MUST BE NOTIFIED TO INSPECT ALL ASPECTS OF THE NEW SEPTIC SYSTEM PREPARATION AND INSTALLATION.

SELECT FILL NOTES:

1. SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER.
2. SELECT FILL EXCEEDING 6% PASSING THE #200 SIEVE BASED ON A WET SIEVE TEST CANNOT BE APPROVED BY THE DESIGN ENGINEER. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
3. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE. NOTE: THIS IS THE GRAVEL PORTION OF THE SAMPLE.
4. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
5. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

PERCENT PASSING SIEVE SIZE

	WET SIEVE	DRY SIEVE
#4	100	100
#10	70 - 100	70 - 100
#40	10 - 50 *	10 - 75
#100	0 - 20	0 - 5
#200	0 - 5	0 - 2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
SELECT FILL THAT DOES NOT MEET THE DRY SIEVE GRADATION CRITERIA BUT MEETS THE WET SIEVE GRADATION CRITERIA IS ACCEPTABLE. SIEVE TESTING OF SELECT FILL IS REQUIRED FOR LARGE (2,000 GPD OR GREATER) SYSTEMS WHENEVER THE LEACHING SYSTEM IS LOCATED TOTALLY IN SELECT FILL. THE LOCAL DIRECTOR OF HEALTH MAY REQUIRE SIEVE TESTING OF SELECT FILL ON LESS THAN 2,000 GPD SEWAGE SYSTEMS IN ACCORDANCE WITH PHC SECTION 19-13-B103E (D) (6).

REVISED: 05/13/2022 - Rerouted portion of existing roof leader pipes to permeable patio per Conservation Commission request.

SITE DEVELOPMENT PLAN

24 HILL CREST LANE

WESTON, CT

Prepared for

CHRIS REDLITZ

SCALE: 1" = 20' (0 — 20 — 40)

DATED: 04/14/2022
JOB NO: CR22-1
SHEET NO: 1 of 1

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