29 5 2
LIPMAN STEVEN & JAYNEE BERKMAN
310 WEST 72ND STREET APT 10H
NEW YORK NY 10023

29 5 1
LIPMAN STEVEN
41 KETTLE CREEK ROAD
WESTON CT 06883

29 3 34
JDR 36 KETTLE CREEK LLC
229 GOODHILL ROAD
WESTON CT 06883

29 5 4
HARMON JAMES A+JANE T
43 KETTLE CREEK RD
WESTON CT 06883

29 5 5
MARTH JOHN G & LINDA K
45 KETTLE CREEK ROAD
WESTON CT 06883

29 5 7
LAL TILAK
220 GRANELLI AVE
HALF MOON BAY CA 94019

29 3 43
ALLEN CHANNING S & GINSBURG
38 KETTLE CREEK ROAD
WESTON CT 06883

29 3 49
TOWNE BUILDING AND DEVELOPMENT
28 HERMIT LANE
WESTPORT CT 06880

29 5 6
THOMPSON DAVID & JOYCE TRS
47 KETTLE CREEK ROAD
WESTON CT 06883

ENGINEERING

MEMORANDUM

TO: Town of Weston Planning and Zoning Commission

CC: Tom Kelley

FROM: Bryan Nesteriak, PE, LS

DATE: April 22, 2024

RE: 48 Kettle Creek Road, Weston, Connecticut (Lot 1)

This memorandum will serve as the Erosion Control Bond Estimate for 48 Kettle Creek Road. These estimates were based off a review of a map entitled "Proposed Site Development Plan of 48 Kettle Creek Road Weston, Connecticut. Prepared for Tom Kelley towne building & development 28 Hermit Lane Westport, Connecticut. Dated: 4/2/2024."

Item	Quantity	Unit Price	Total
Silt Fence	763 LF	$10.00 per LF	$7,630.00
Staked Haybales	16 LF	$15.00 per LF	$240.00
Construction Entrance	1 LS	$1,500.00 Lump Sum	$1,500.00
TOTAL :			$9,370.00

STORM WATER MANAGEMENT ANALYSIS

for

48 Kettle Creek Road
Weston, Connecticut

April 2, 2024

Prepared for:
Tom Kelley

Prepared by:

ENGINEERING

15 Research Drive
Woodbridge, Connecticut 06525
Phone: (203) 881-8145
www.bbengrs.com

Bryan P. Nesteriak, PE, LS 23556

Job #1097

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APPENDICES

1.0 PROJECT DESCRIPTION

The proposed project includes the construction of a dwelling, driveway, covered porch, deck walkways and steps located at 48 Kettle Creek Road in Weston, Connecticut. The existing dwelling will be demolished. The storm water runoff from the proposed dwelling, a portion of the driveway and lawn area will be collected, detained, and treated on-site with the use of an underground detention system.

2.0 SOIL ANALYSIS

The subject parcel was researched and tested for storm water infiltration suitability. According to the Soil Survey of Fairfield County the parcel is underlain with Charlton-Chatfield complex (73C), hydrologic soil group "B". Paxton and Montauk fine sandy loams (84B), hydrologic soil group "C". The soils were confirmed with excavated test pits. The results of the on-site testing are located on the Site Development Plan.

3.0 METHODOLOGY & ANALYSIS

Watershed

This study was prepared using the Soil Conservation Service (SCS) methodology. This method outlines procedures for calculating peak rates of runoff resulting from precipitation events and procedures for developing runoff hydrographs. The calculations use the unit hydrograph method as described by Technical Release 55 (TR-55). The rates of runoff for the pre-development and post-development conditions were compared to determine any change as a result of the improvements.

Composite values for area, curve number (CN) and time of concentration (Tc) were calculated for each the pre-development and post-development condition. The curve numbers were calculated using the following values:

Cover Description	Hyd. Condition	CN
Lawn Area: grassland	Fair "C"	79
Proposed Lawn: grassland	Good "C"	74
Impervious: dwelling, driveway, deck etc.	-	98

The value calculated for the pre-development condition was as follows:

Description	Area	CN	Tc
Pre-Development	**1.26 acres**	**81**	**26.3 min.**
[Existing Lawn: grassland	1.14 acres	79]	
[Impervious: house, driveway, etc.	0.12 acres	98]	

The post-development condition was modeled as two sub-watersheds, one which will be detained, and the other that will flow overland off-site. Pond Inflow, the detained sub-watershed, consists of runoff from the proposed dwelling, a portion of the driveway and lawn area. It will be collected and treated by the underground Cultec galleys. Undetained Area consists of runoff from the deck, patio, walkways, a portion of the driveway, and vegetated land that will be allowed to flow offsite naturally as it does today. Values used for the post-development condition were as follows:

Description	Area	CN	Tc
Undetained Area	**1.04 acres**	**76**	**26.3 min.**
[Proposed Lawn: grassland	0.95 acres	74]	
[Impervious: driveway, deck, etc.	0.09 acres	98]	
Pond Inflow	**0.22 acres**	**87**	**6.0 min.**
[Proposed Lawn: grassland	0.10 acres	74]	
[Impervious: dwelling driveway, etc.	0.12 acres	98]	

In accordance with the policies of the Town of Weston, systems shall be designed to accommodate Type III cumulative rainfall distribution. 24-hour rainfall depths for the 2-year, 10-year, and 25-year, 50-year storms shall be considered. Rainfall depths were obtained through NOAA's precipitation frequency data server, the results of which are included in Appendix C. The obtained rainfall values are as follows:

- A 2-year, 24-hour storm consisting of 3.52 inches of rainfall;
- A 10-year, 24-hour storm consisting of 5.41 inches of rainfall;
- A 25-year, 24-hour storm consisting of 6.58 inches of rainfall;
- A 50-year, 24-hour storm consisting of 7.45 inches of rainfall;

The design storm used for this study is the 24-hour SCS Type III cumulative rainfall distribution. Precipitation frequency estimates for the site were taken from NOAA Atlas 14, Volume 10 and are included in this report under appendix B. All the watersheds were analyzed by the computer program *Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2019*; the results of which are located in Appendix B. For convenience and to conserve resources, the drainage calculations included in the appendices of this report were limited to the 50-year storm event.

Detention System

Runoff from the driveway will be collected by the trench drain and will be directed into the underground detention system. Runoff from the roof will be collected and directed to the underground detention system. Due to the size of the system, it is not expected that excess stormwater will overflow the underground detention system up to the 50-year storm event. The system has been designed to contain and infiltrate the 50-year runoff volume and keep the proposed development's runoff flow rates below that of the calculated pre-development rates.

The proposed detention system was routed with the use of the computer program *Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2019*; the results of which are located in Appendix B. Infiltration rates were used as part of the design; however, the values used were half the measured rates for a factor of safety.

Results

The calculated storm water peak flows are as follows:

CONDITIONFLOW	2-YEAR FLOW	10-YEAR FLOW	25-YEAR FLOW	50-YEAR FLOW
PREDEVELOPMENT	1.502 CFS	2.923 CFS	3.838 CFS	4.522 CFS
Undetained Area	0.972 CFS	2.073 CFS	2.799 CFS	3.355 CFS
Pond Inflow	0.493 CFS	0.867 CFS	1.098 CFS	1.269 CFS
Pond Route	0.000 CFS	0.118 CFS	0.543 CFS	1.172 CFS
FINAL COMBINED	0.972 CFS	2.073 CFS	3.211 CFS	3.795 CFS

In order to accurately analyze the post-development condition, the Pre-Development hydrograph is compared to a combined hydrograph consisting of the undetained area hydrograph and the final combined hydrographs that result from detention pond outflows.

CONDITION	2-YEAR FLOW	10-YEAR FLOW	25-YEAR FLOW	50-YEAR FLOW
PREDEVELOPMENT	1.502 CFS	2.923 CFS	3.838 CFS	4.522 CFS
FINAL COMBINED	0.972 CFS	2.073 CFS	3.211 CFS	3.795 CFS
PROPOSED CHANGE	-0.530 CFS	-0.850 CFS	-0.627 CFS	-0.727 CFS

The proposed change shows that the storm water flow rates are expected to be reduced as a result of the development and proposed system.

4.0 STORM WATER QUALITY ANALYSIS

The majority of storm water introduced to the system will be roof runoff where the observance of any oils, grease or particulates is remote. Since the driveway is small and its use is primarily limited to residential vehicles, the anticipated levels of sediment and oils should be negligible.

The system was planned in accordance with design considerations found in the 2004 Connecticut Stormwater Quality Manual. As stated in the manual they should be enabled to infiltrate the full Water Quality Volume (WQV). The underground detention system was designed to handle 151.8% of the WQV of the entire site. Calculations for the system are located in Appendix B.

The homeowner will be responsible for the implementation of an annual maintenance program which should include driveway sweeping, gutter and trench drain cleaning and pipe maintenance. Proper fertilizer and pesticide management and household pet waste management should be observed.

5.0 CONCLUSION

The proposed storm water collection system has been designed to adequately convey the required storm event without any adverse impacts or increase in overall storm water flow and while maintaining adequate water quality.

6.0 REFERENCES

1. *Urban Hydrology for Small Watersheds*, Technical Release No. 55, USDA Soil Conservation Service Publication, June 1986.

2. Rainfall Frequency Values for Connecticut with 24-Hour Storm Duration, United States Department of Commerce and Weather Bureau, T.P. 40, May 1961.

3. *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*, The Connecticut Council on Soil and Water Conservation.

4. Debo, Thomas N. and Reese, Andrew J., *Municipal Stormwater Management*, Second Edition, Boca Raton, Lewis Publishers, 2003

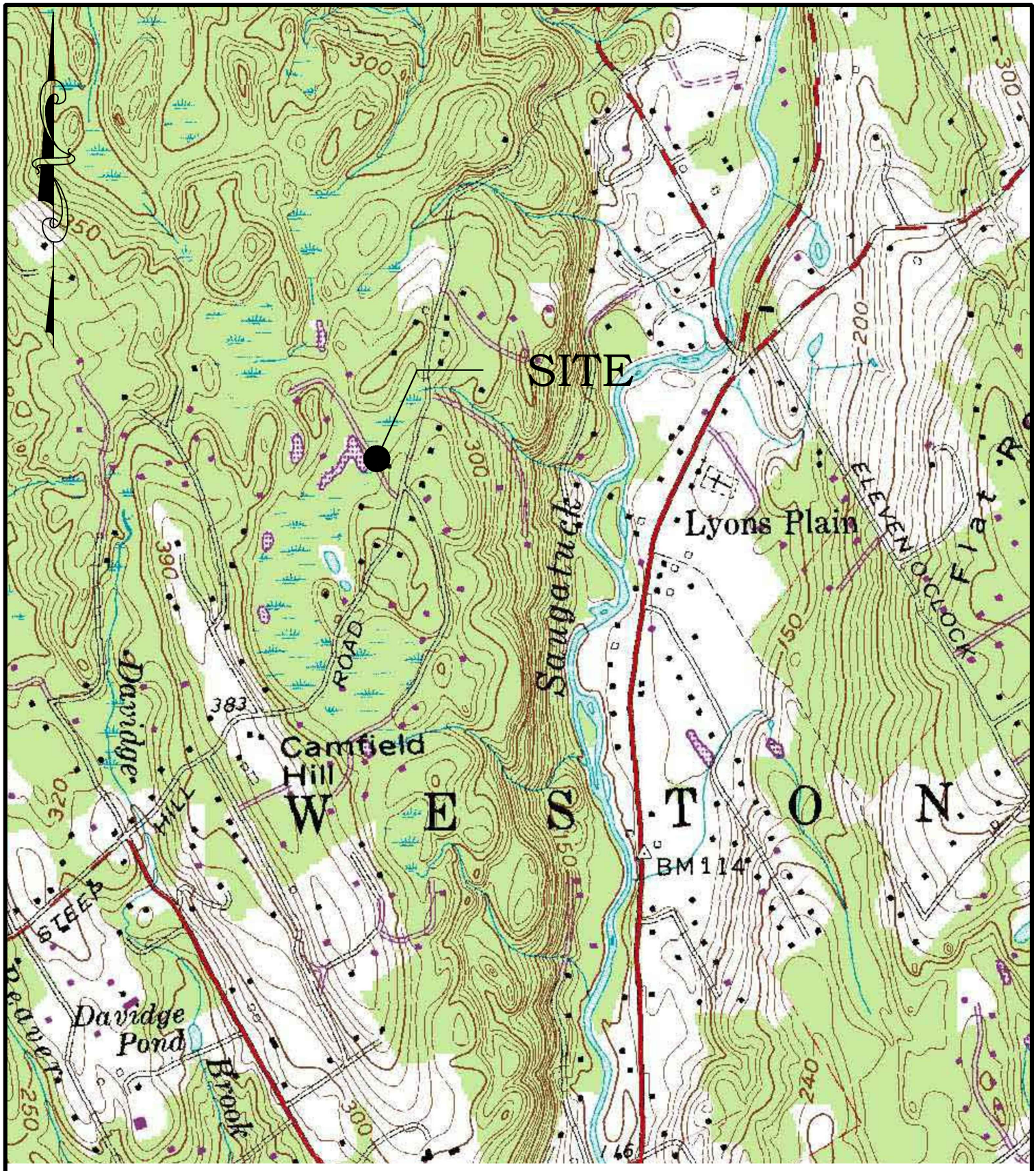
5. *2004 Connecticut Stormwater Quality Manual*, Connecticut Department of Environmental Protection.

6. *Web Soil Survey*. 8/1/2006. National Resources Conservation Service <http://websoilsurvey.nrcs.usda.gov/app/>

APPENDIX A

Figures

CONTENTS:



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Land Surveying, Professional Engineering & Land Use Consultants

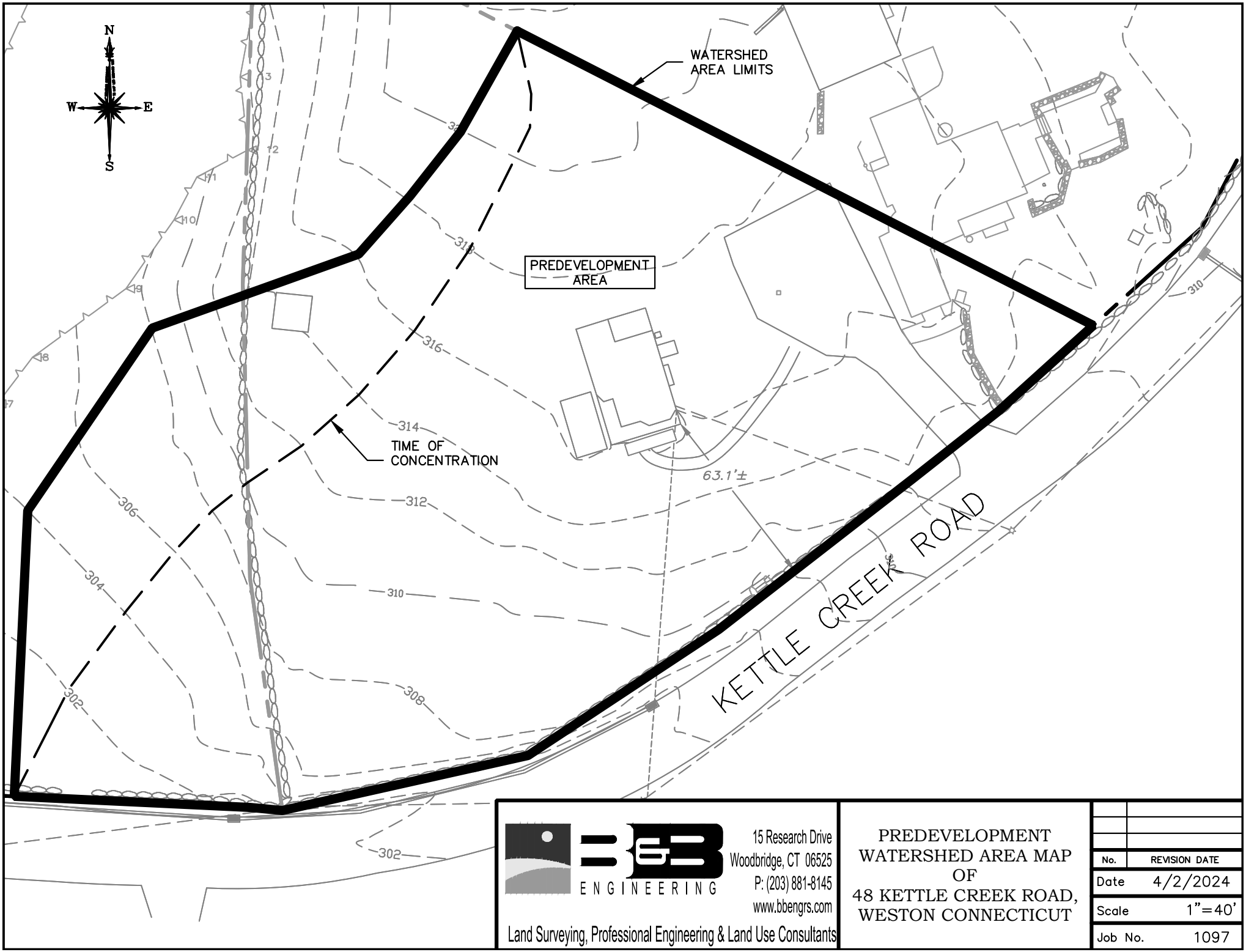
Drawing Title

USGS LOCATION MAP

OF

48 KETTLE CREEK ROAD
WESTON, CT

No.	REVISION DATE
Date	4/2/2024
Scale	1"=1000'
Job No.	1097



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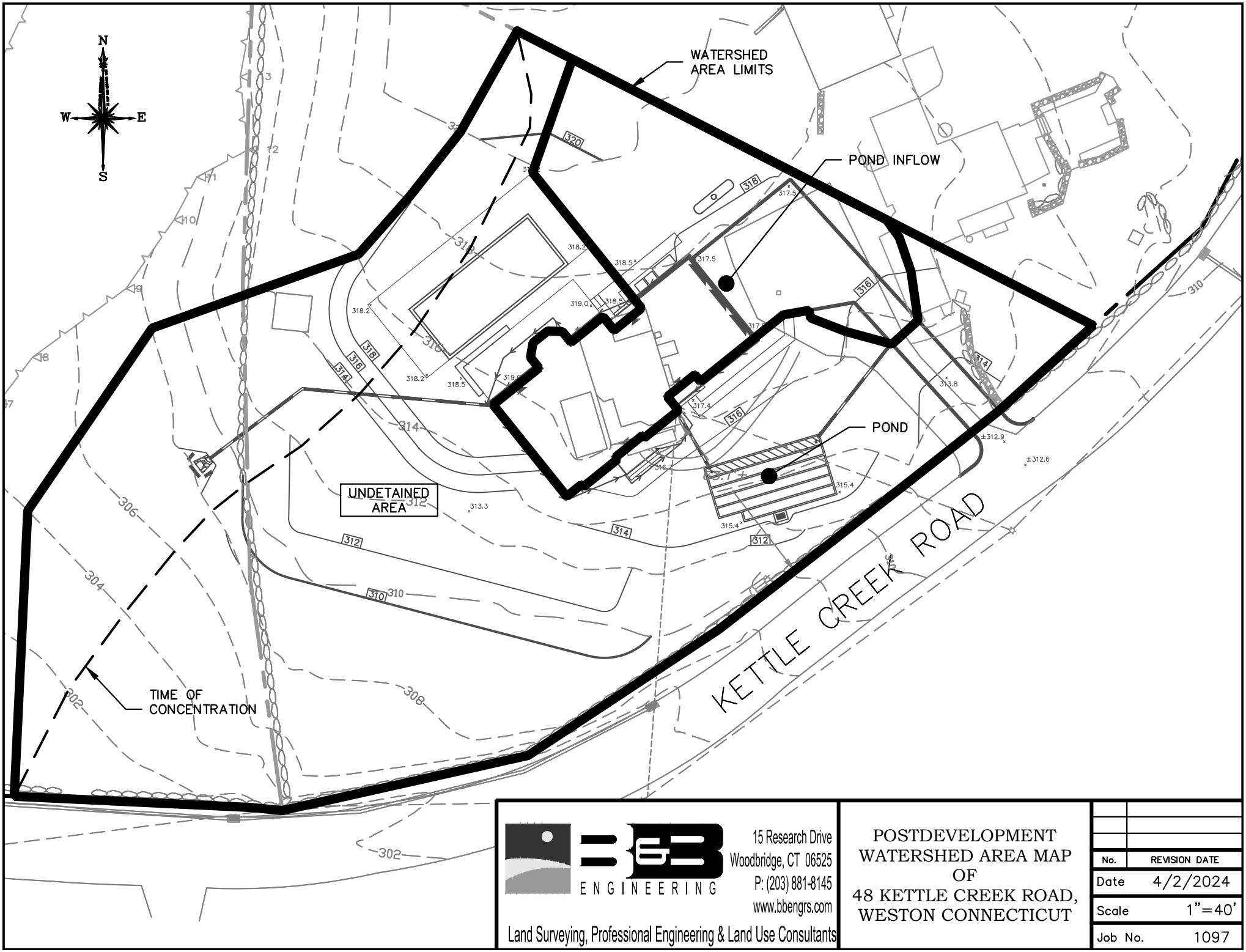
PREDEVELOPMENT WATERSHED AREA MAP OF 48 KETTLE CREEK ROAD, WESTON CONNECTICUT

No.	REVISION DATE
Date	4/2/2024
Scale	1"=40'
Job No.	1097



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Land Surveying, Professional Engineering & Land Use Consultants

POSTDEVELOPMENT WATERSHED AREA MAP OF 48 KETTLE CREEK ROAD, WESTON CONNECTICUT

No.	REVISION DATE
Date	4/2/2024
Scale	1"=40'
Job No.	1097

APPENDIX B

Data & Calculations

CONTENTS:

Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	-------	1.502	-------	-------	2.923	3.838	4.522	-------	PREDEVELPOMENT
3	SCS Runoff	------	-------	0.972	-------	-------	2.073	2.799	3.355	-------	Undetained
5	SCS Runoff	------	-------	0.493	-------	-------	0.867	1.098	1.269	-------	Pond Inflow
6	Reservoir	5	-------	0.000	-------	-------	0.118	0.543	1.172	-------	Pond Route
8	Combine	3, 6,	-------	0.972	-------	-------	2.073	3.211	3.795	-------	FINAL COMBINED

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	4.522	3	738	23,899	------	------	------	PREDEVELPOMENT
3	SCS Runoff	3.355	3	738	17,593	------	------	------	Undetained
5	SCS Runoff	1.269	3	726	4,429	------	------	------	Pond Inflow
6	Reservoir	1.172	3	729	813	5	314.84	1,093	Pond Route
8	Combine	3.795	3	735	18,406	3, 6,	------	------	FINAL COMBINED

Hydrograph Report

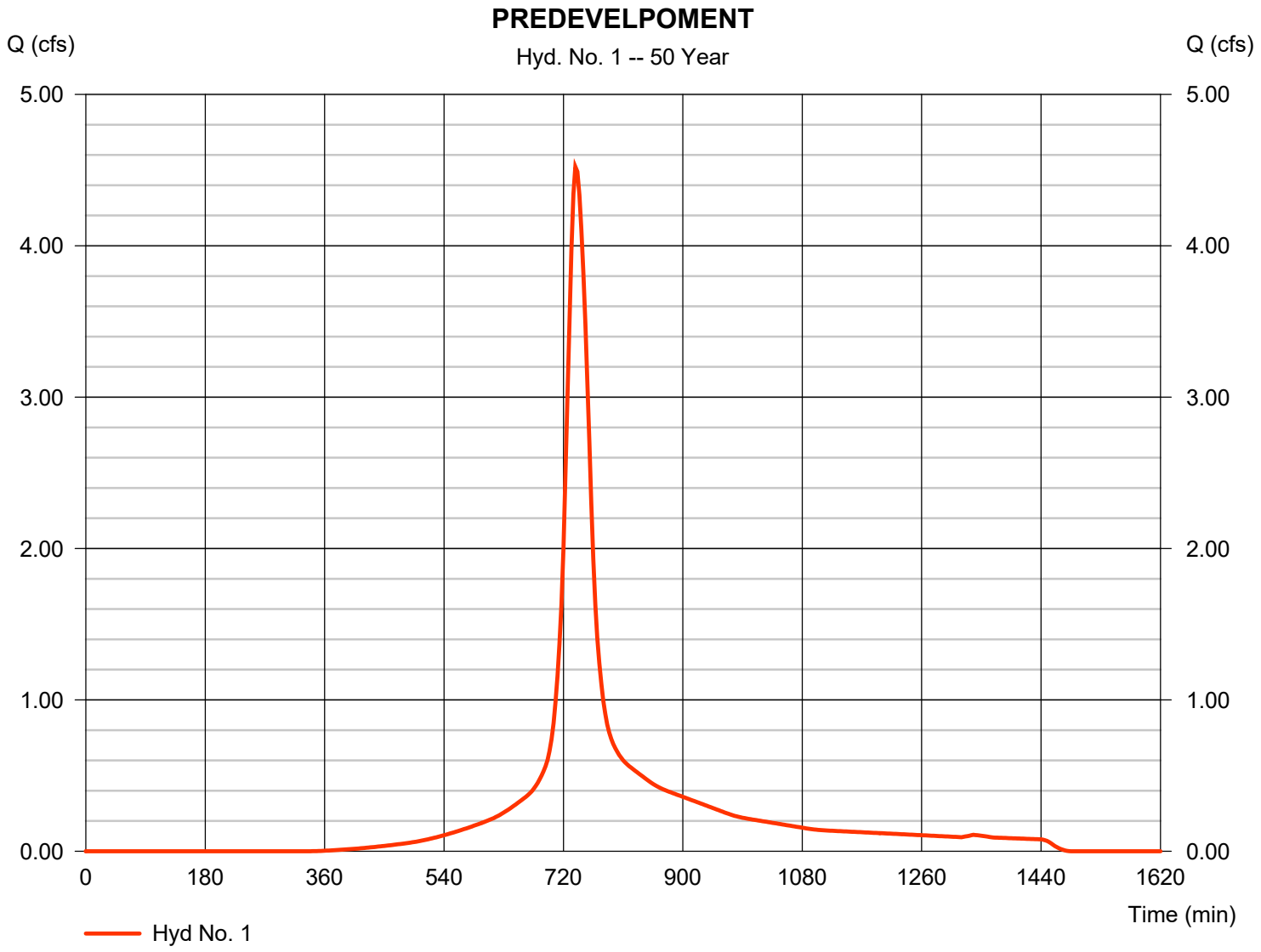
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 Monday, 04 / 15 / 2024

Hyd. No. 1

PREDEVELPOMENT

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.522 cfs
Storm frequency	=	50 yrs	Time to peak	=	738 min
Time interval	=	3 min	Hyd. volume	=	23,899 cuft
Drainage area	=	1.260 ac	Curve number	=	81*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	26.30 min
Total precip.	=	7.45 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(1.140 x 79) + (0.120 x 98)] / 1.260



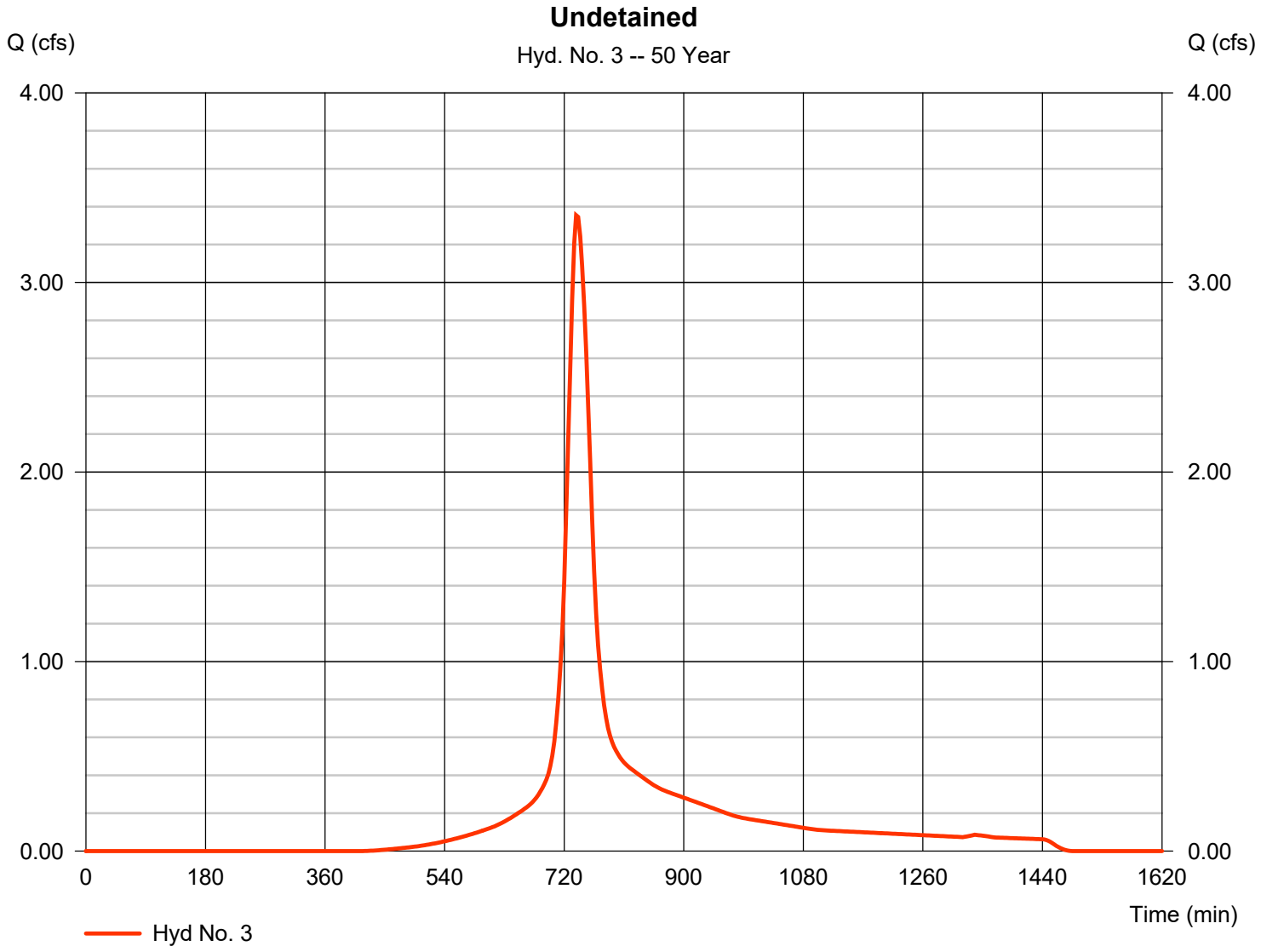
Hydrograph Report

Hyd. No. 3

Undetained

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.355 cfs
Storm frequency	=	50 yrs	Time to peak	=	738 min
Time interval	=	3 min	Hyd. volume	=	17,593 cuft
Drainage area	=	1.040 ac	Curve number	=	76*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	26.30 min
Total precip.	=	7.45 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.950 x 74) + (0.090 x 98)] / 1.040



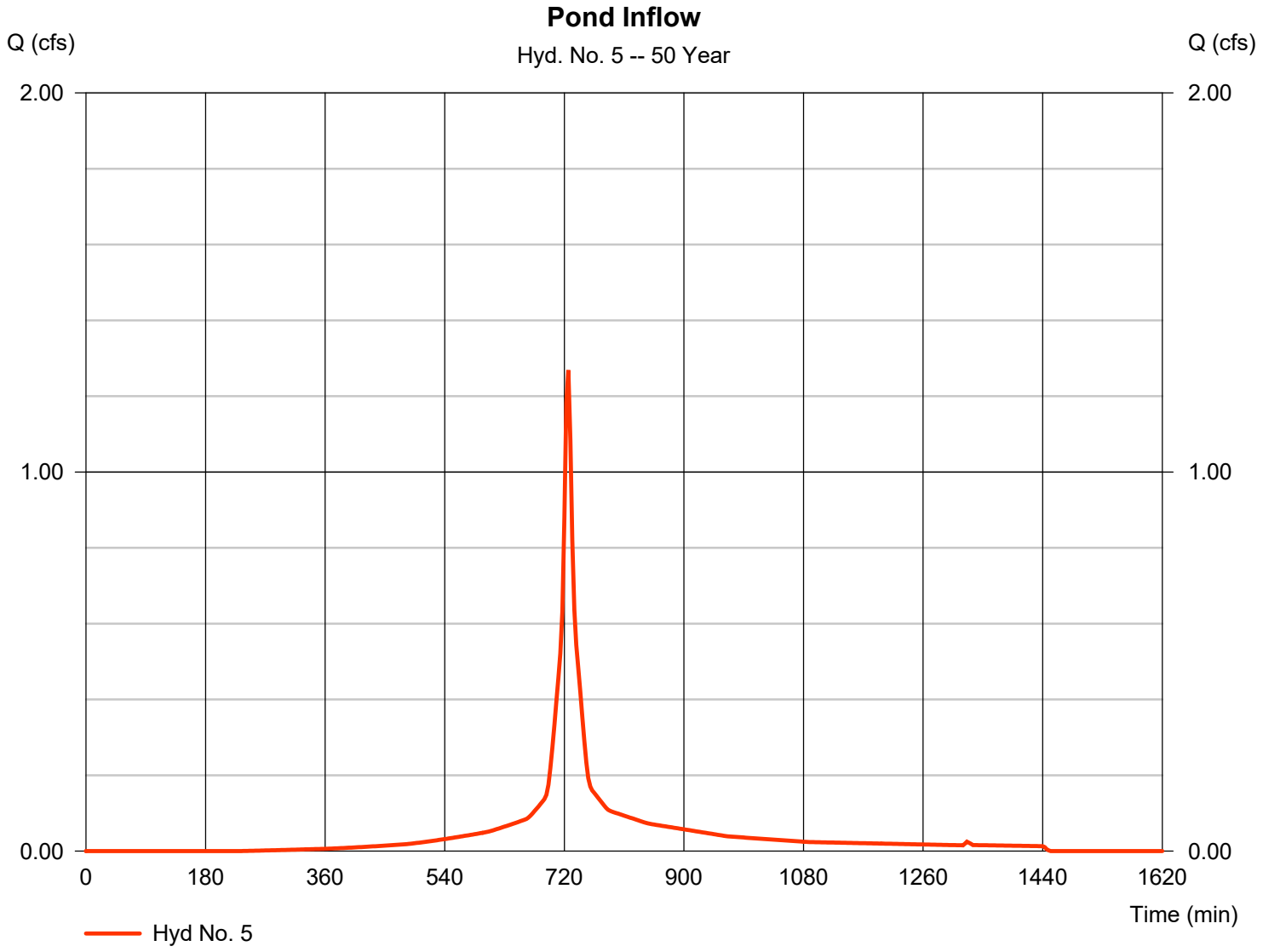
Hydrograph Report

Hyd. No. 5

Pond Inflow

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.269 cfs
Storm frequency	=	50 yrs	Time to peak	=	726 min
Time interval	=	3 min	Hyd. volume	=	4,429 cuft
Drainage area	=	0.220 ac	Curve number	=	87*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	7.45 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.100 x 74) + (0.120 x 98)] / 0.220



Hydrograph Report

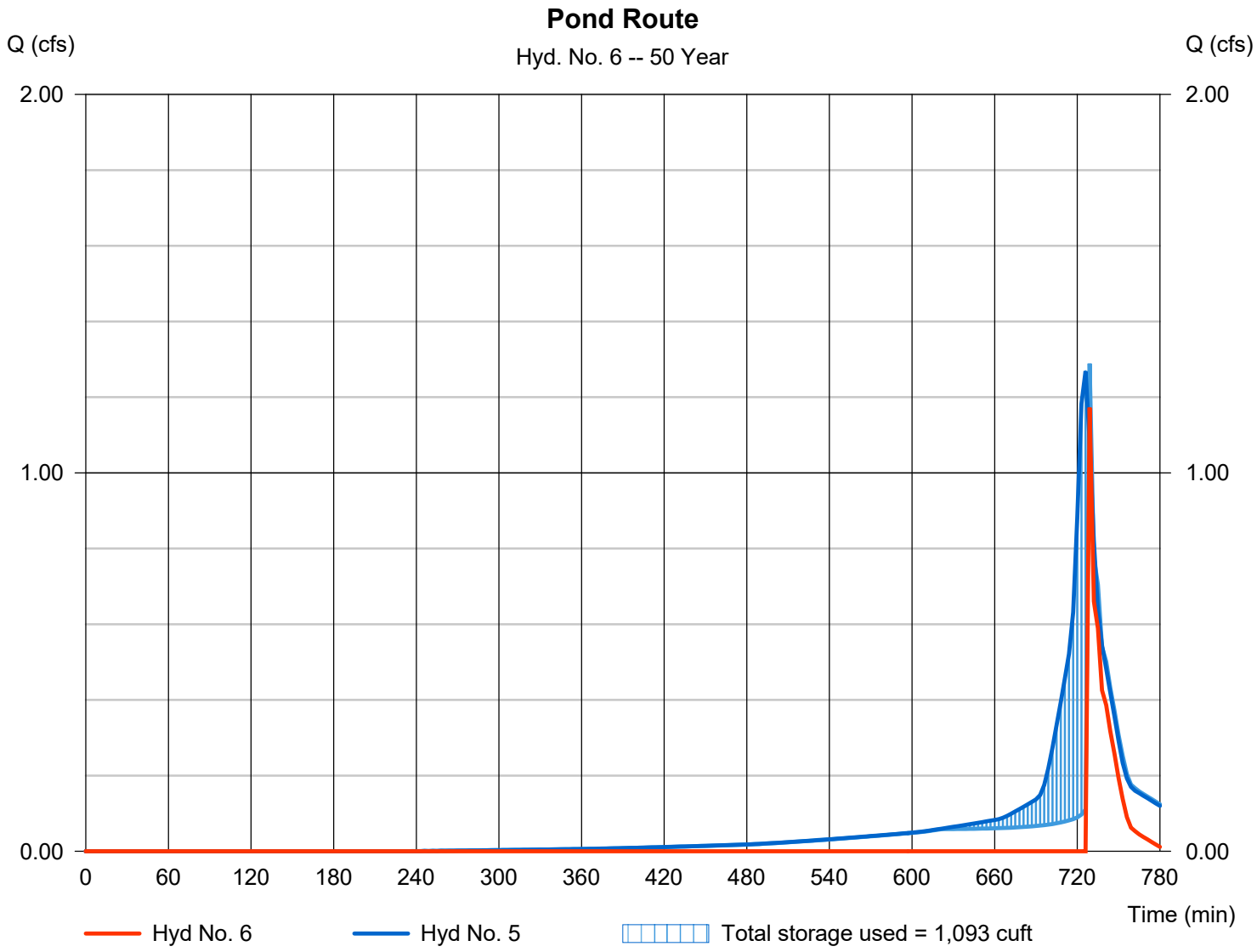
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 Monday, 04 / 15 / 2024

Hyd. No. 6

Pond Route

Hydrograph type	=	Reservoir	Peak discharge	=	1.172 cfs
Storm frequency	=	50 yrs	Time to peak	=	729 min
Time interval	=	3 min	Hyd. volume	=	813 cuft
Inflow hyd. No.	=	5 - Pond Inflow	Max. Elevation	=	314.84 ft
Reservoir name	=	Pond (Cultec 100HD)	Max. Storage	=	1,093 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Pond Report

Pond No. 1 - Pond (Cultec 100HD)

Pond Data

UG Chambers -Invert elev. = 313.30 ft, Rise x Span = 1.04 x 3.00 ft, Barrel Len = 232.00 ft, No. Barrels = 1, Slope = 0.00%, Headers = No
Encasement -Invert elev. = 312.80 ft, Width = 4.00 ft, Height = 2.04 ft, Voids = 40.00%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	312.80	n/a	0	0
0.20	313.00	n/a	76	76
0.41	313.21	n/a	76	151
0.61	313.41	n/a	122	274
0.82	313.62	n/a	159	433
1.02	313.82	n/a	154	586
1.22	314.02	n/a	144	730
1.43	314.23	n/a	127	857
1.63	314.43	n/a	90	947
1.84	314.64	n/a	76	1,023
2.04	314.84	n/a	76	1,099

Culvert / Orifice Structures

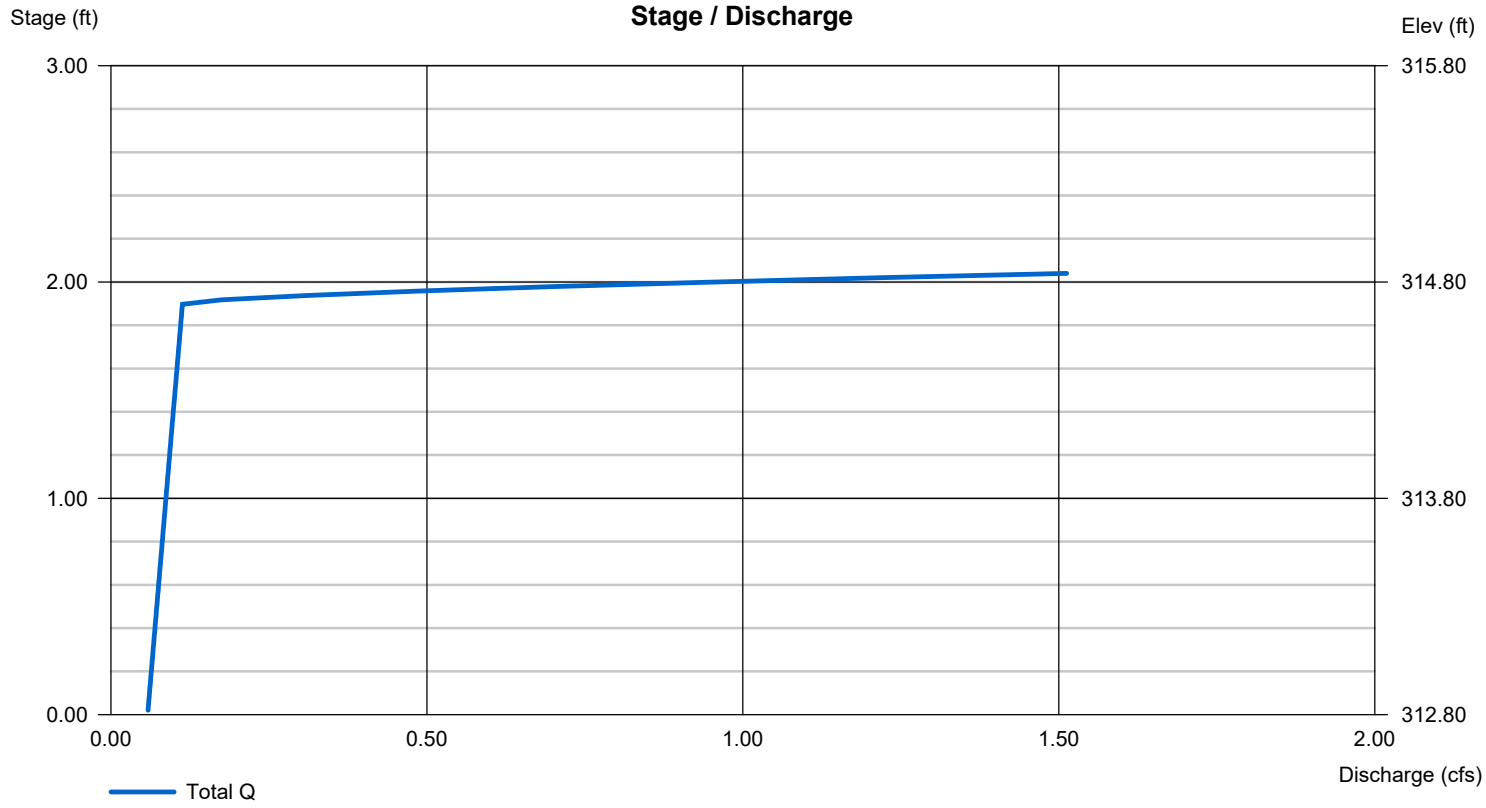
	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 314.70	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 2.700 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

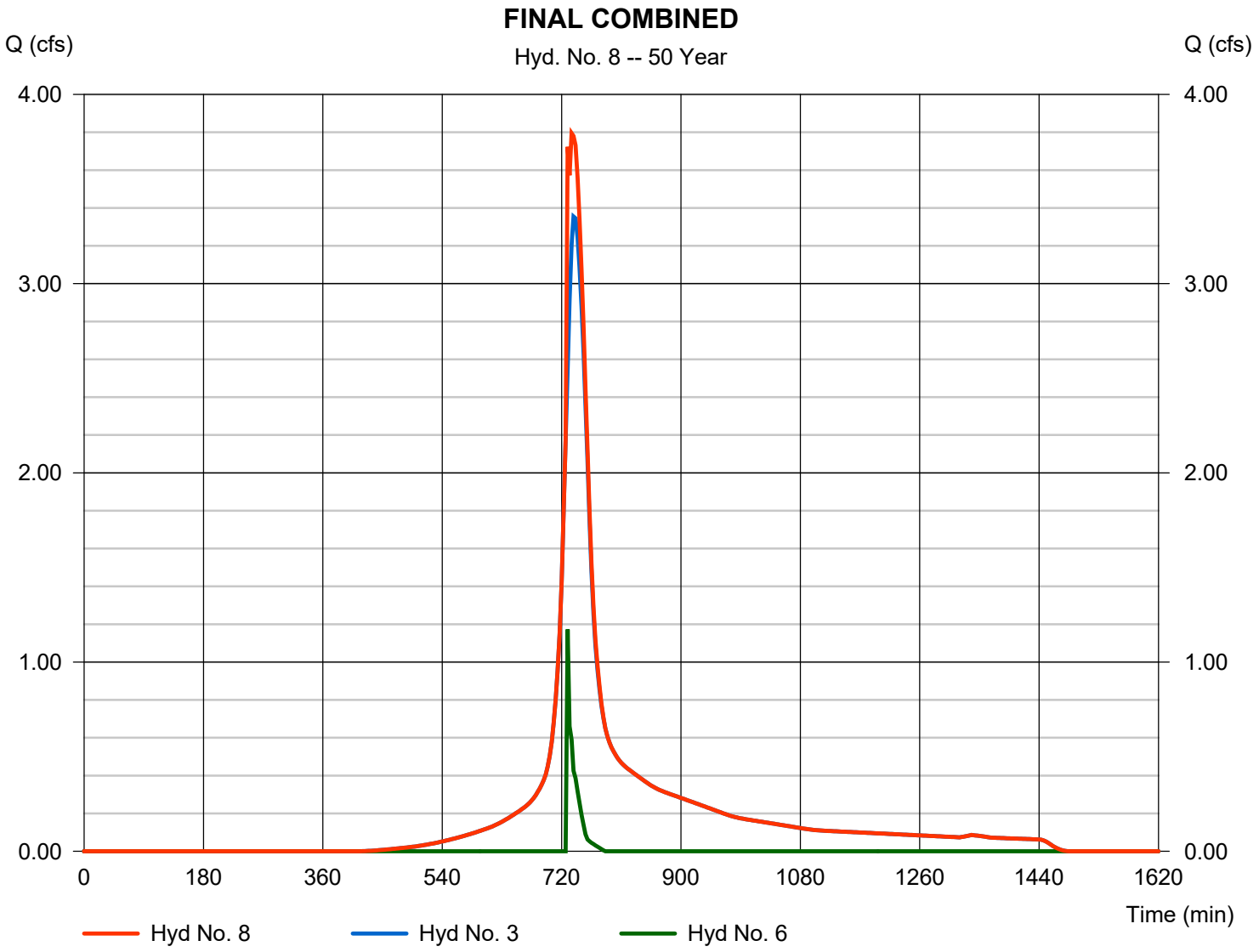


Hydrograph Report

Hyd. No. 8

FINAL COMBINED

Hydrograph type	=	Combine	Peak discharge	=	3.795 cfs
Storm frequency	=	50 yrs	Time to peak	=	735 min
Time interval	=	3 min	Hyd. volume	=	18,406 cuft
Inflow hyds.	=	3, 6	Contrib. drain. area	=	1.040 ac



STORM WATER QUALITY CALCULATIONS

Underground Detention System

as defined by "2004 Connecticut Stormwater Quality Manual"

Watershed:

Determine "Water Quality Volume" (WQV)

I = percent impervious cover = **100.0 %**

$$WQV = \frac{1" (R)(A)}{12}$$

R = volumetric runoff coefficient = 0.05 + 0.009(I)

= 0.05 + 0.009 (100.0) = **0.950**

$$= \frac{1" (0.95) \quad (0.21)}{12}$$

A = site area in acres = **0.21**

= 0.017 Acre-Feet

= 724 CF **Volume of designed basin = 1099 CF**

PER THE MANUAL, THE INFILTRATION SUTRUCTURES SHOULD BE DESIGNED TO MAINTAIN AT LEAST THE WATER QUALITY VOLUME (WQV)

AS DESIGNED, THE DETENTION SYSTEM HAS A TOTAL CAPACITY OF **1099 CF,** which EQUATES TO **151.8%** OF THE WQV.

THEREFORE, THE SYSTEMS COMPLY WITH THE REQUIREMENTS OF THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL FOR UNDERGROUND INFILTRATION SYSTEMS.

E N G I N E E R I N G

APPENDIX C

Precipitation Data (NOAA)

NOAA Atlas 14, Volume 10, Version 3
Location name: Weston, Connecticut, USA*
Latitude: 41.1969°, Longitude: -73.3675°
Elevation: 321 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.365** (0.282-0.466)	**0.425** (0.328-0.543)	**0.523** (0.403-0.670)	**0.604** (0.462-0.778)	**0.716** (0.531-0.952)	**0.801** (0.581-1.08)	**0.888** (0.625-1.23)	**0.981** (0.660-1.39)	**1.11** (0.718-1.62)	**1.21** (0.766-1.80)
10-min	**0.517** (0.400-0.661)	**0.602** (0.465-0.770)	**0.741** (0.570-0.950)	**0.856** (0.655-1.10)	**1.01** (0.752-1.35)	**1.14** (0.824-1.53)	**1.26** (0.886-1.75)	**1.39** (0.935-1.97)	**1.57** (1.02-2.29)	**1.71** (1.08-2.54)
15-min	**0.609** (0.470-0.777)	**0.709** (0.547-0.906)	**0.872** (0.671-1.12)	**1.01** (0.771-1.30)	**1.19** (0.884-1.59)	**1.34** (0.969-1.80)	**1.48** (1.04-2.06)	**1.64** (1.10-2.32)	**1.85** (1.20-2.70)	**2.02** (1.28-3.00)
30-min	**0.847** (0.654-1.08)	**0.986** (0.761-1.26)	**1.21** (0.933-1.55)	**1.40** (1.07-1.80)	**1.66** (1.23-2.20)	**1.86** (1.35-2.50)	**2.06** (1.44-2.85)	**2.26** (1.52-3.22)	**2.54** (1.65-3.71)	**2.75** (1.74-4.08)
60-min	**1.08** (0.838-1.38)	**1.26** (0.975-1.61)	**1.55** (1.20-1.99)	**1.80** (1.37-2.31)	**2.13** (1.57-2.82)	**2.38** (1.72-3.21)	**2.64** (1.85-3.64)	**2.90** (1.95-4.11)	**3.23** (2.10-4.71)	**3.48** (2.20-5.17)
2-hr	**1.39** (1.08-1.76)	**1.64** (1.28-2.08)	**2.05** (1.59-2.61)	**2.39** (1.84-3.06)	**2.86** (2.13-3.78)	**3.22** (2.35-4.32)	**3.58** (2.53-4.94)	**3.97** (2.68-5.60)	**4.51** (2.93-6.54)	**4.93** (3.13-7.28)
3-hr	**1.60** (1.25-2.02)	**1.90** (1.48-2.40)	**2.39** (1.86-3.03)	**2.80** (2.16-3.57)	**3.36** (2.52-4.43)	**3.79** (2.78-5.08)	**4.23** (3.01-5.83)	**4.71** (3.19-6.62)	**5.40** (3.51-7.80)	**5.94** (3.78-8.74)
6-hr	**2.01** (1.58-2.52)	**2.41** (1.89-3.02)	**3.06** (2.39-3.85)	**3.59** (2.79-4.55)	**4.33** (3.26-5.69)	**4.89** (3.61-6.53)	**5.48** (3.93-7.54)	**6.14** (4.17-8.58)	**7.10** (4.64-10.2)	**7.89** (5.03-11.5)
12-hr	**2.48** (1.96-3.09)	**2.98** (2.35-3.72)	**3.80** (2.99-4.76)	**4.49** (3.51-5.64)	**5.43** (4.12-7.08)	**6.13** (4.56-8.15)	**6.88** (4.97-9.44)	**7.74** (5.27-10.7)	**9.00** (5.90-12.8)	**10.1** (6.43-14.6)
24-hr	**2.90** (2.30-3.59)	**3.52** (2.80-4.37)	**4.55** (3.61-5.66)	**5.41** (4.26-6.75)	**6.58** (5.02-8.55)	**7.45** (5.58-9.86)	**8.39** (6.11-11.5)	**9.50** (6.50-13.1)	**11.2** (7.34-15.8)	**12.6** (8.08-18.1)
2-day	**3.23** (2.58-3.97)	**4.00** (3.20-4.92)	**5.26** (4.19-6.49)	**6.30** (5.00-7.82)	**7.74** (5.95-10.0)	**8.81** (6.64-11.6)	**9.96** (7.33-13.6)	**11.4** (7.81-15.6)	**13.6** (8.96-19.1)	**15.5** (9.97-22.2)
3-day	**3.49** (2.81-4.28)	**4.34** (3.48-5.32)	**5.72** (4.58-7.04)	**6.88** (5.47-8.49)	**8.46** (6.53-10.9)	**9.62** (7.29-12.7)	**10.9** (8.05-14.9)	**12.5** (8.57-17.0)	**14.9** (9.85-20.9)	**17.0** (11.0-24.3)
4-day	**3.75** (3.02-4.58)	**4.64** (3.74-5.68)	**6.11** (4.90-7.49)	**7.32** (5.84-9.02)	**9.00** (6.96-11.6)	**10.2** (7.76-13.4)	**11.6** (8.56-15.7)	**13.2** (9.11-18.0)	**15.8** (10.4-22.1)	**18.0** (11.6-25.6)
7-day	**4.49** (3.64-5.46)	**5.47** (4.43-6.66)	**7.07** (5.70-8.62)	**8.40** (6.73-10.3)	**10.2** (7.93-13.0)	**11.6** (8.80-15.0)	**13.0** (9.64-17.5)	**14.8** (10.2-20.0)	**17.4** (11.6-24.2)	**19.7** (12.7-27.8)
10-day	**5.22** (4.24-6.32)	**6.25** (5.08-7.58)	**7.94** (6.42-9.64)	**9.34** (7.51-11.4)	**11.3** (8.75-14.3)	**12.7** (9.66-16.4)	**14.2** (10.5-19.0)	**16.0** (11.1-21.6)	**18.6** (12.4-25.8)	**20.8** (13.5-29.3)
20-day	**7.40** (6.06-8.90)	**8.55** (6.99-10.3)	**10.4** (8.50-12.6)	**12.0** (9.71-14.5)	**14.1** (11.0-17.7)	**15.8** (12.0-20.1)	**17.5** (12.8-22.8)	**19.3** (13.4-25.8)	**21.8** (14.6-30.0)	**23.8** (15.5-33.3)
30-day	**9.20** (7.56-11.0)	**10.4** (8.56-12.5)	**12.5** (10.2-15.0)	**14.1** (11.5-17.1)	**16.4** (12.9-20.5)	**18.2** (13.9-23.0)	**20.0** (14.7-25.9)	**21.8** (15.3-29.1)	**24.3** (16.3-33.3)	**26.2** (17.1-36.5)
45-day	**11.4** (9.41-13.6)	**12.7** (10.5-15.2)	**14.9** (12.3-17.9)	**16.7** (13.7-20.1)	**19.2** (15.1-23.8)	**21.2** (16.2-26.5)	**23.1** (16.9-29.6)	**25.0** (17.5-33.0)	**27.4** (18.4-37.3)	**29.1** (19.0-40.4)
60-day	**13.2** (11.0-15.7)	**14.7** (12.1-17.4)	**17.0** (14.0-20.2)	**18.9** (15.4-22.6)	**21.5** (16.9-26.5)	**23.6** (18.1-29.4)	**25.6** (18.8-32.7)	**27.5** (19.4-36.3)	**29.9** (20.2-40.6)	**31.6** (20.7-43.8)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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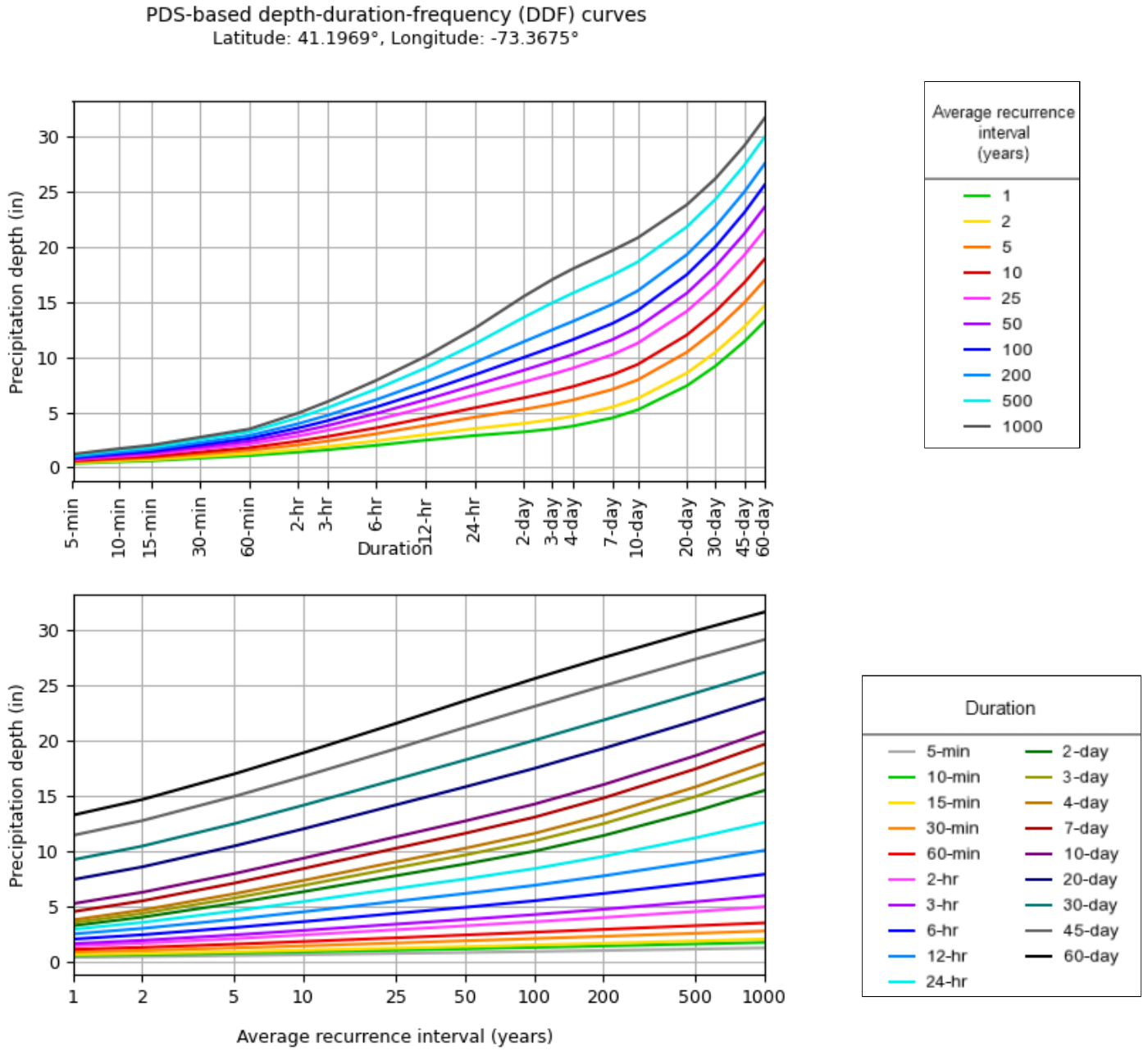
PF graphical



NOAA Atlas 14, Volume 10, Version 3

Created (GMT): Mon Mar 18 15:16:08 2024

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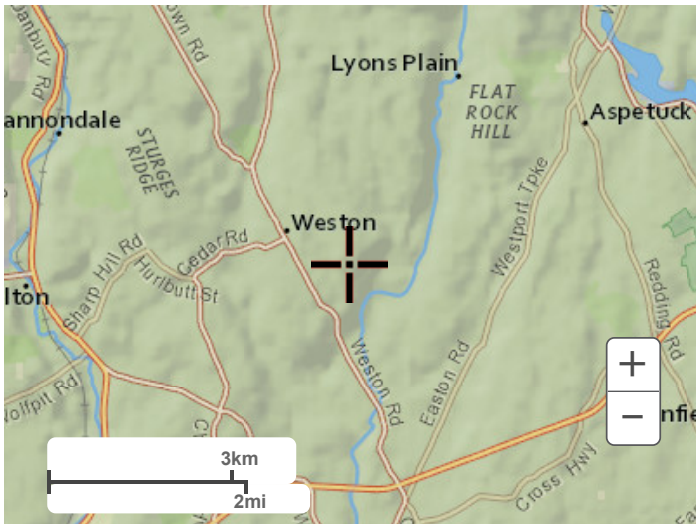
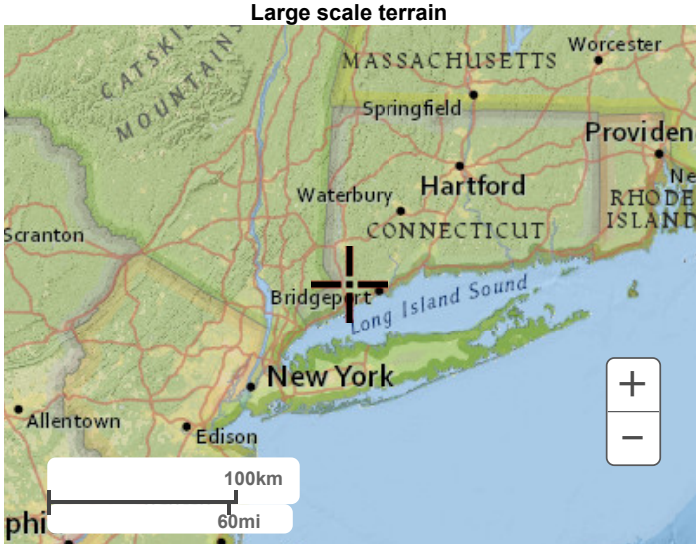
Maps & aerials

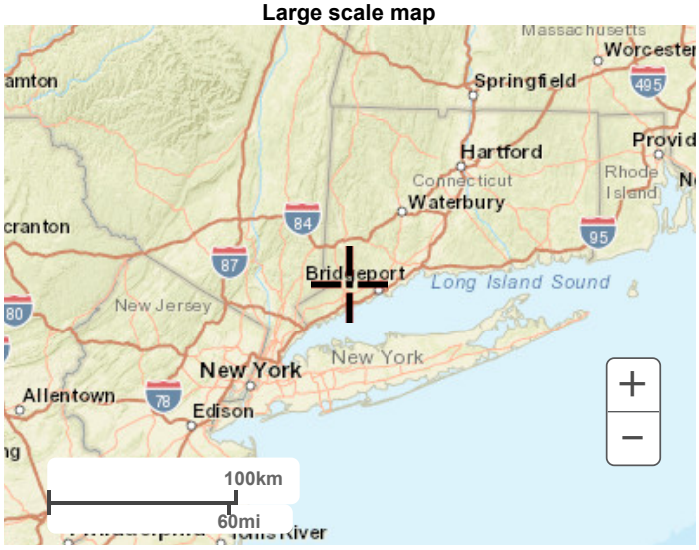
Small scale terrain



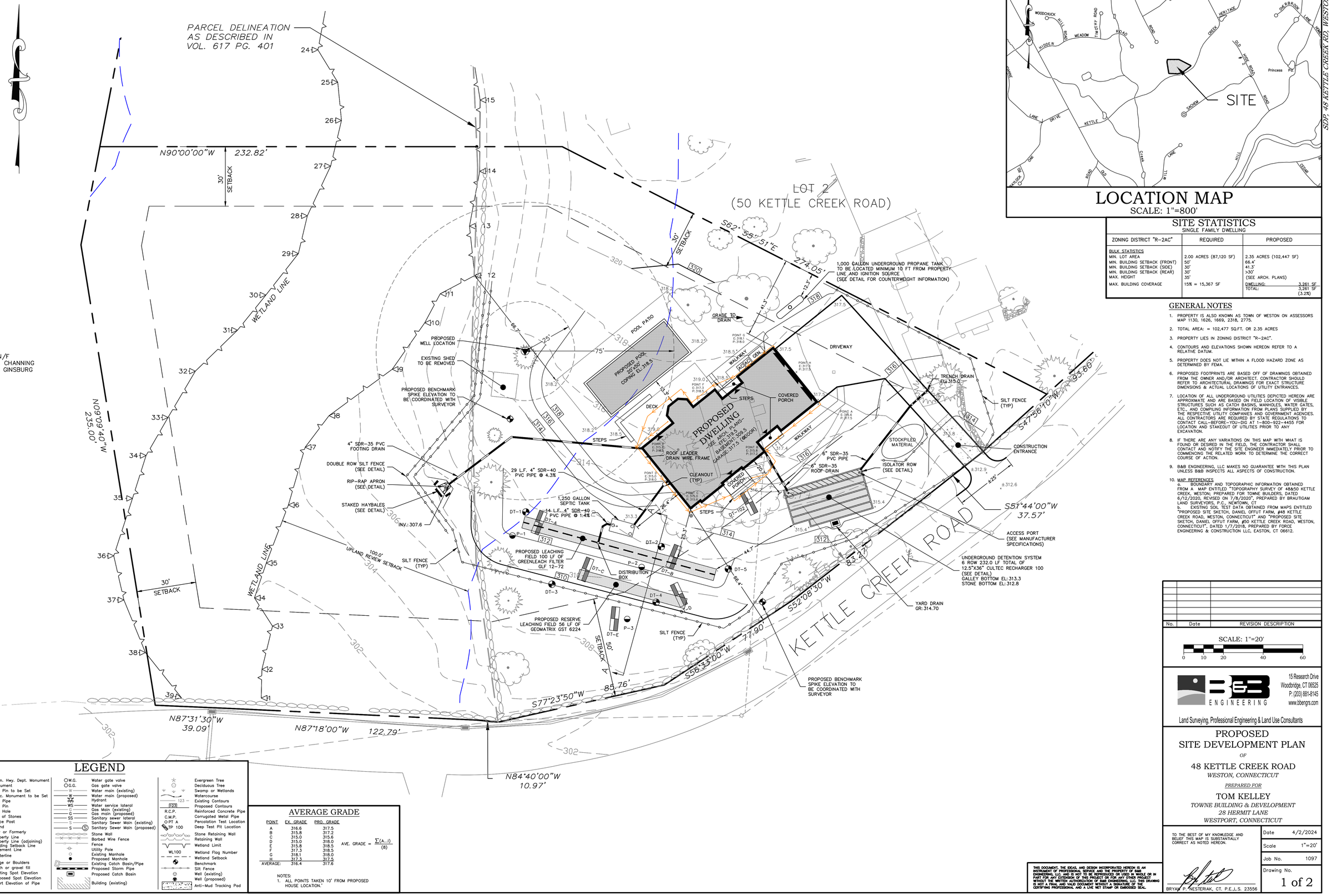
Large scale terrain

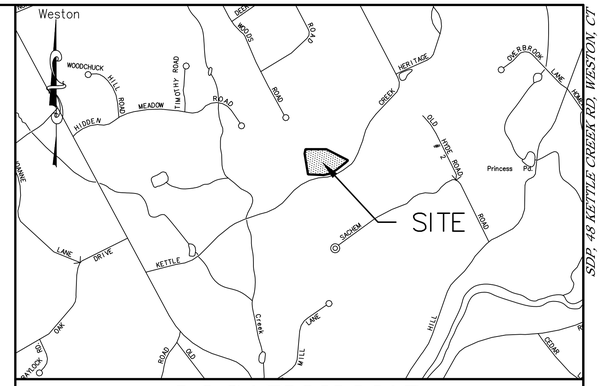


Large scale map



Large scale aerial





LOCATION MAP
SCALE: 1"=800'

SITE STATISTICS
SINGLE FAMILY DWELLING

ZONING DISTRICT "R-2AC"	REQUIRED	PROPOSED
BULK STATISTICS		
MIN. LOT AREA	2.00 ACRES (87,120 SF)	2.35 ACRES (102,447 SF)
MIN. BUILDING SETBACK (FRONT)	50'	66.4'
MIN. BUILDING SETBACK (SIDE)	30'	41.3'
MIN. BUILDING SETBACK (REAR)	30'	>30'
MAX. HEIGHT	35'	(SEE ARCH. PLANS)
MAX. BUILDING COVERAGE	15% = 15,367 SF	DWELLING: 3,261 SF TOTAL: 3,261 SF (3.2%)

GENERAL NOTES

1. PROPERTY IS ALSO KNOWN AS TOWN OF WESTON ON ASSESSORS MAP 1130, 1626, 1669, 2318, 2775.
2. TOTAL AREA: = 102,477 SQ.FT. OR 2.35 ACRES
3. PROPERTY LIES IN ZONING DISTRICT "R-2AC".
4. CONTOURS AND ELEVATIONS SHOWN HEREON REFER TO A RELATIVE DATUM.
5. PROPERTY DOES NOT LIE WITHIN A FLOOD HAZARD ZONE AS DETERMINED BY FEMA.
6. PROPOSED FOOTPRINTS ARE BASED OFF OF DRAWINGS OBTAINED FROM THE OWNER AND/OR ARCHITECT. CONTRACTOR SHOULD REFER TO ARCHITECTURAL DRAWINGS FOR EXACT STRUCTURE DIMENSIONS & ACTUAL LOCATIONS OF UTILITY ENTRANCES.
7. LOCATION OF ALL UNDERGROUND UTILITIES DEPICTED HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES AND GOVERNMENT AGENCIES. ALL CONTRACTORS ARE REQUIRED BY STATE REGULATIONS TO CONTACT CALL-BEFORE-YOU-DIG AT 1-800-922-4455 FOR LOCATION AND STAKEOUT OF UTILITIES PRIOR TO ANY EXCAVATION.
8. IF THERE ARE ANY VARIATIONS ON THIS MAP WITH WHAT IS FOUND OR DESIRED IN THE FIELD, THE CONTRACTOR SHALL CONTACT AND NOTIFY THE SITE ENGINEER IMMEDIATELY PRIOR TO COMMENCING THE RELATED WORK TO DETERMINE THE CORRECT COURSE OF ACTION.
9. B&B ENGINEERING, LLC MAKES NO GUARANTEE WITH THIS PLAN UNLESS B&B INSPECTS ALL ASPECTS OF CONSTRUCTION.
10. MAP REFERENCES
    a. BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM A MAP ENTITLED "TOPOGRAPHY SURVEY OF 48&50 KETTLE CREEK, WESTON, PREPARED FOR TOWNE BUILDERS, DATED 6/12/2020, REVISED ON 7/8/2020", PREPARED BY BRAUTIGAM LAND SURVEYORS, P.C., NEWTOWN, CT
    b. EXISTING SOIL TEST DATA OBTAINED FROM MAPS ENTITLED "PROPOSED SITE SKETCH, DANIEL OFFUT FARM, #48 KETTLE CREEK ROAD, WESTON, CONNECTICUT" AND "PROPOSED SITE SKETCH, DANIEL OFFUT FARM, #50 KETTLE CREEK ROAD, WESTON, CONNECTICUT", DATED 1/7/2018, PREPARED BY FORCE ENGINEERING & CONSTRUCTION LLC, EASTON, CT 06612.

LEGEND

- C.H.D. Conn. Hwy. Dept. Monument
- Mon. Monument
- Iron Pin to be Set
- Conc. Monument to be Set
- I. Pipe Iron Pipe
- I.P. Iron Pin
- D.H. Drill Hole
- Pile of Stones
- F.P. Fence Post
- Fnd. Found
- n/f Now or Formerly
- Property Line
- Property Line (adjoining)
- Building Setback Line
- Easement Line
- Centerline
- Ledge or Boulders
- Earth or gravel fill
- x123.4 Existing Spot Elevation
- Proposed Spot Elevation
- INV: Invert Elevation of Pipe
- W.G. Water gate valve
- G.G. Gas gate valve
- W Water main (existing)
- W Water main (proposed)
- Hydrant
- WS Water service lateral
- G Gas Main (existing)
- G Gas main (proposed)
- SS Sanitary sewer lateral
- S Sanitary Sewer Main (existing)
- S Sanitary Sewer Main (proposed)
- Stone Wall
- Barbed Wire Fence
- Fence
- Utility Pole
- Existing Manhole
- Proposed Manhole
- Existing Catch Basin/Pipe
- Proposed Storm Pipe
- Proposed Catch Basin
- Building (existing)
- Evergreen Tree
- Deciduous Tree
- Swamp or Wetlands
- Watercourse
- 123 Existing Contours
- [123] Proposed Contours
- R.C.P. Reinforced Concrete Pipe
- C.M.P. Corrugated Metal Pipe
- P.T. A Percolation Test Location
- TP 100 Deep Test Pit Location
- Stone Retaining Wall
- Retaining Wall
- Wetland Limit
- WL100 Wetland Flag Number
- Wetland Setback
- Benchmark
- Silt Fence
- Well (existing)
- Well (proposed)
- Anti-Mud Tracking Pad

AVERAGE GRADE

POINT	EX. GRADE	PROP. GRADE
A	316.6	317.5
B	315.8	317.2
C	315.0	315.6
D	315.0	318.0
E	315.8	318.5
F	317.3	318.5
G	318.1	318.0
H	317.3	317.5
AVERAGE:	316.4	317.6

AVE. GRADE = $\frac{\sum(A...I)}{(8)}$

NOTES:
1. ALL POINTS TAKEN 10' FROM PROPOSED HOUSE LOCATION."

No.	Date	REVISION DESCRIPTION

SCALE: 1"=20'
0 10 20 40 60

B&B ENGINEERING
15 Research Drive
Woodbridge, CT 06525
P: (203) 891-8145
www.bbengrs.com
Land Surveying, Professional Engineering & Land Use Consultants

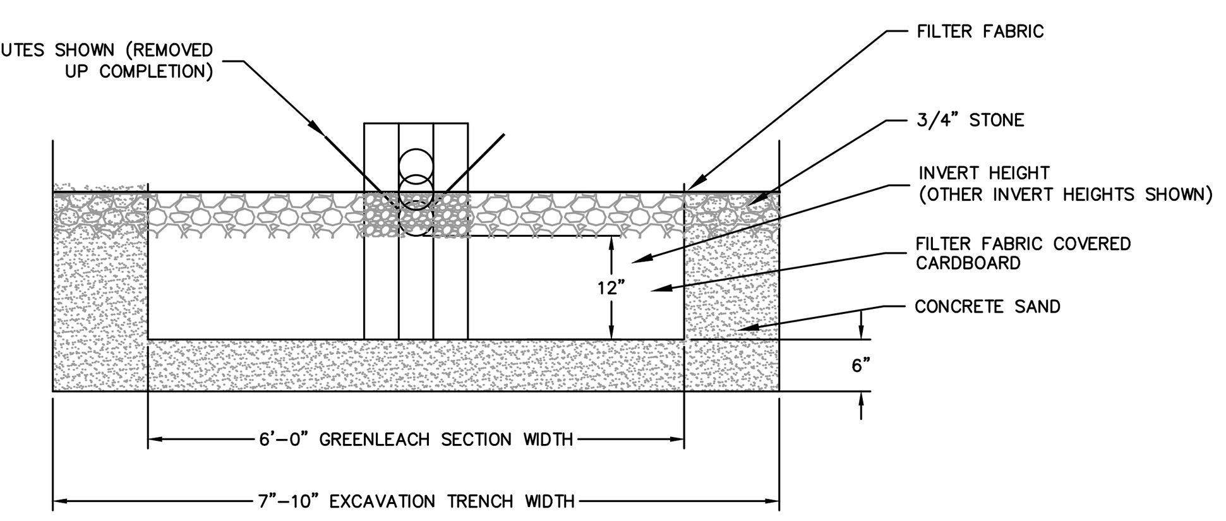
PROPOSED SITE DEVELOPMENT PLAN
OF
48 KETTLE CREEK ROAD
WESTON, CONNECTICUT
PREPARED FOR
TOM KELLEY
TOWNE BUILDING & DEVELOPMENT
28 HERMIT LANE
WESTPORT, CONNECTICUT

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

BRYAN P. NESTERIAK, CT. P.E.,L.S. 23556

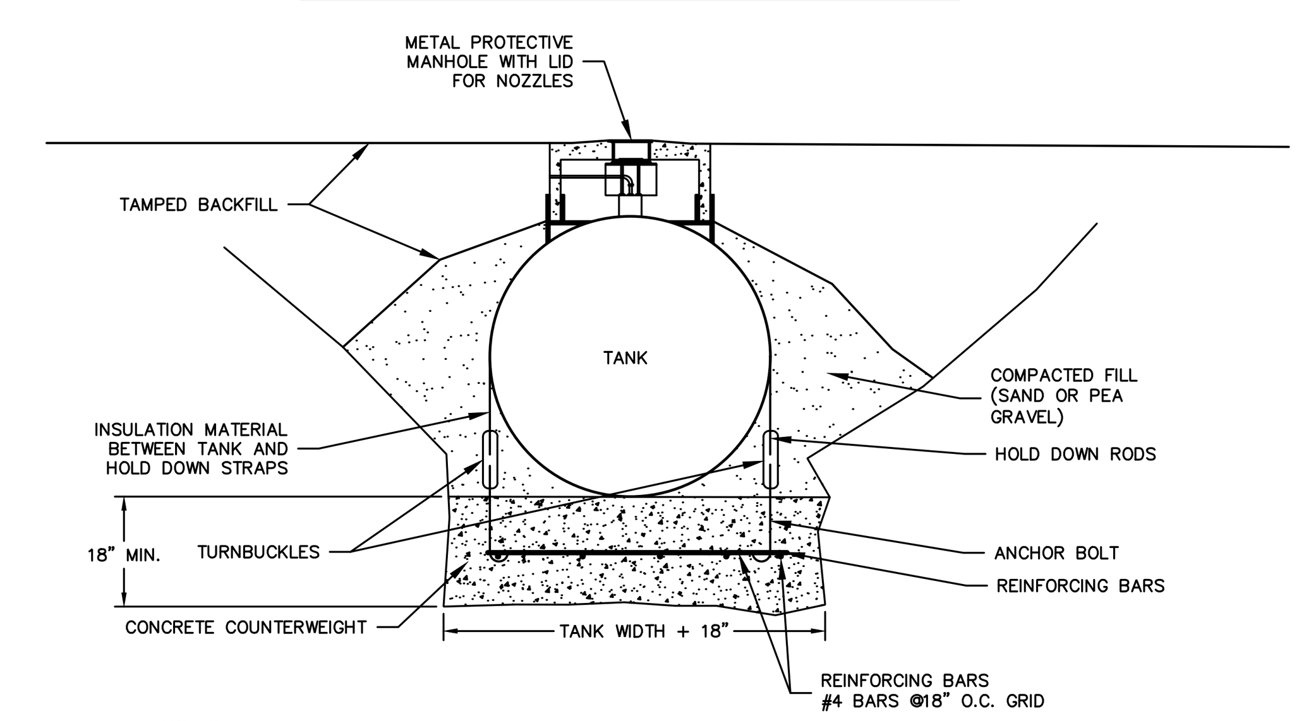
Date	4/2/2024
Scale	1"=20'
Job No.	1097
Drawing No.	1 of 2

GREENLEACH FILTER GLF 12-72



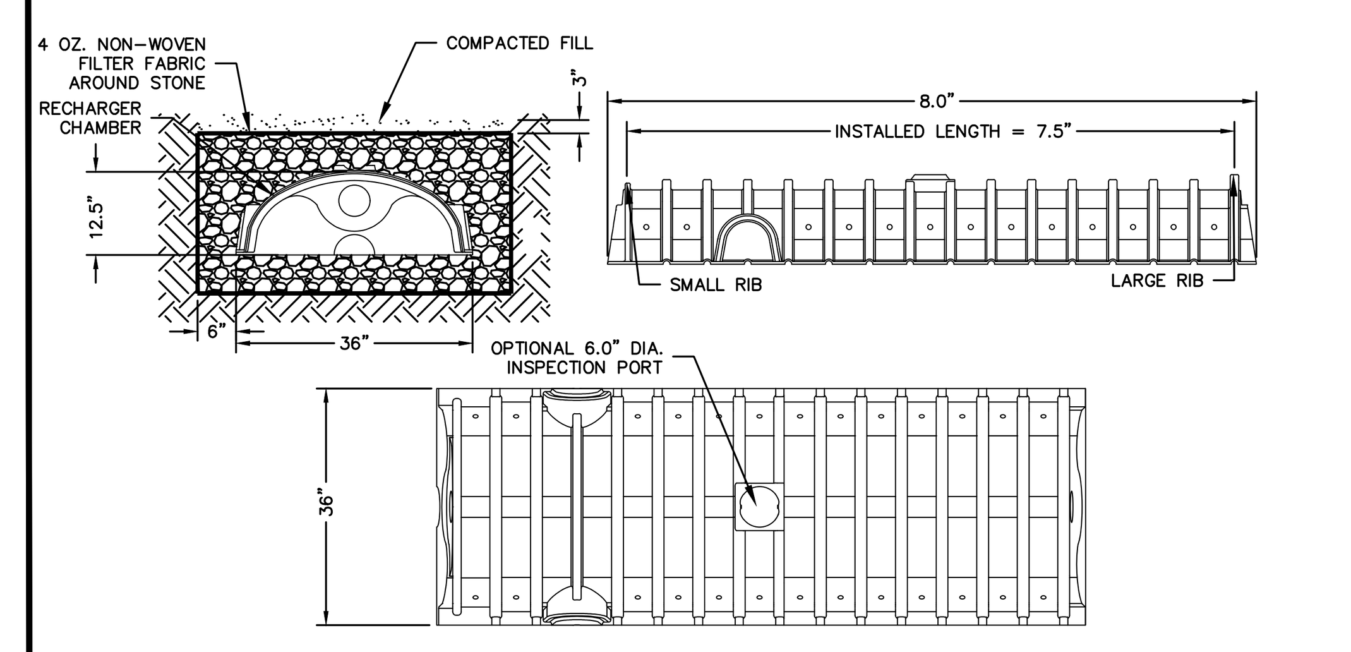
GREENLEACH SYSTEM SECTION - END VIEW

UNDERGROUND PROPANE TANK



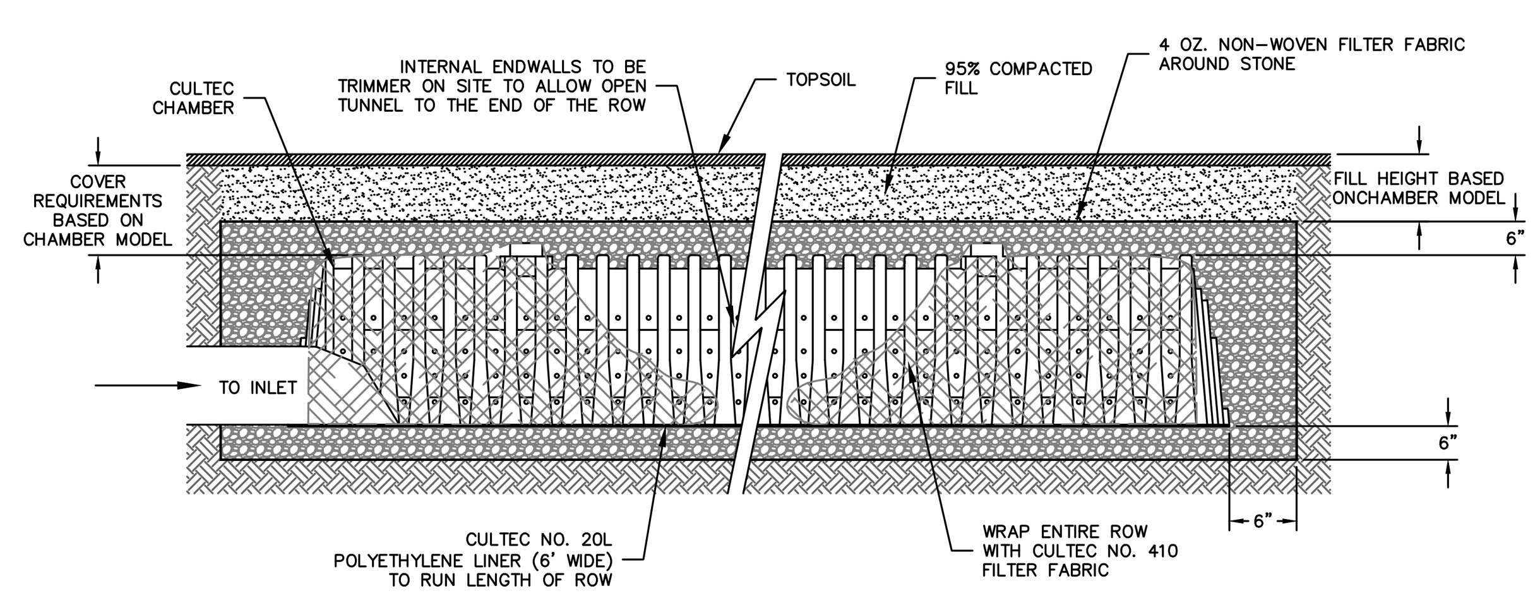
NOTES
1. CHECK WITH UTILITY COMPANIES FOR LOCATIONS OF UNDERGROUND LINES. VERIFY LOCATIONS OF UNDERGROUND LAWN SPRINKLER LINES, SEPTIC TANKS, AND DRAIN FIELD LATERAL LINES BEFORE AUGURING GROUND ANCHORS. MAINTAIN PROPER SEPARATION IN ACCORDANCE WITH LOCAL, STATE & FEDERAL GUIDELINES.

CULTEC RECHARGER 100HD



GENERAL NOTES
1. RECHARGER CHAMBERS BY CULTEC, INC. OF BROOKFIELD, CT.
2. REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
3. USE RECHARGER CHAMBERS HEAVY DUTY FOR TRAFFIC AND/OR H20 APPLICATIONS.
4. ALL RECHARGER HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
5. ALL RECHARGER CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

STORM DETENTION ISOLATOR ROW



GENERAL NOTES
1. RECHARGER CHAMBERS BY CULTEC, INC. OF BROOKFIELD, CT.
2. REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
3. USE RECHARGER CHAMBERS HEAVY DUTY FOR TRAFFIC AND/OR H20 APPLICATIONS.
4. ALL RECHARGER HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
5. ALL RECHARGER CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
6. IF THE SYSTEM IS COMPRISED OF A SINGLE ROW, THEN THAT ROW SHALL BE TREATED AS THE ISOLATOR ROW.

GENERAL SEPTIC NOTES

1. THIS SYSTEM IS NOT DESIGNED FOR BACKWASH FROM A WATER SOFTENING SYSTEM OR THE OUTFLOW FROM A GARBAGE DISPOSAL OR TUB IN EXCESS OF 100 GALLONS.
2. THIS SYSTEM IS TO BE CONSTRUCTED IN ACCORDANCE WITH ALL STATE AND LOCAL HEALTH REGULATIONS.
3. THE INSTALLATION OF THE SEPTIC SYSTEM SHALL BE UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER.
4. IT IS THE RESPONSIBILITY OF THE INSTALLER TO KEEP LOCAL HEALTH DEPARTMENT AND THE ENGINEER OF RECORD INFORMED OF CONSTRUCTION PROGRESS.
5. ALL PIPING BETWEEN HOUSE AND SEPTIC TANK SHALL BE FOUR INCHES IN DIAMETER WITH A MINIMUM SLOPE OF 1/4" PER FOOT OR SIX INCHES IN DIAMETER WITH A MINIMUM SLOPE OF 1/8" PER FOOT. MATERIALS MAY BE CAST IRON (HUBLESS OR BELL AND SPIGOT) ASTM A74, DUCTILE IRON ANSIA21.51, PVC SCHEDULE 40, ASTM D 2665, EXTRA STRENGTH PVC AWWA C-900 100 PSI MIN, DUCTILE IRON ANDI A 21.51, OR PVC ASTM 7 1760.
6. ALL PIPE USED BETWEEN THE SEPTIC TANK AND LEACHING AREA SHALL BE 4" SDR-35 PVC PIPE WITH WATERTIGHT JOINTS OR EQUIVALENT EQUAL. PIPE SHALL BE SET ON A MINIMUM SLOPE OF 1/4" PER FOOT.
7. STRIP AND STOCKPILE TOPSOIL AND REMOVE BOULDERS PRIOR TO PLACING FILL. ALL TOPSOIL MUST BE REMOVED IN FILL SYSTEMS.
8. THE MAXIMUM DEPTH OF THE BOTTOM OF A LEACHING SYSTEM BELOW FINISHED GRADE SHALL BE EIGHT (8) FEET. ANY FIELD CHANGES TO THE PROPOSED FINISH GRADE MUST BE APPROVED BY THE DESIGN ENGINEER AND THE LOCAL HEALTH DEPARTMENT.
9. SEPTIC TANK ACCESS SHALL BE OUTFITTED WITH 24" DIAMETER RISERS IF THE TOP OF THE TANK IS DEEPER THAN 12" FROM FINISHED GRADE.
10. RISER COVERS SHALL WEIGH A MINIMUM OF 59 LBS OR THE COVER SHALL BE PROVIDED WITH A LOCK SYSTEM TO PREVENT UNAUTHORIZED ENTRANCE. IT IS RECOMMENDED THAT TANK COVERS BE LEFT ON THE TANK FOR SAFETY REASONS AND TO AVOID POTENTIAL ODOR PROBLEMS WHEN MANHOLE RISERS ASSEMBLIES ARE UTILIZED OVER CLEANOUT OPENINGS. SHOULD THE TANK COVER BE REMOVED WHEN EQUIPPED WITH A RISER ASSEMBLY, A SECONDARY SAFETY LID OR DEVICE SHALL BE PROVIDED.
11. B&B ENGINEERING ASSUMES NO RESPONSIBILITY FOR COMPLIANCE WITH PLAN SPECIFICATIONS UNLESS B&B ENGINEERING SUPERVISES ALL PHASES OF THE INSTALLATION.
12. AS-BUILT DRAWING TO BE PREPARED BY PROFESSIONAL ENGINEER PRIOR TO BACKFILLING.
13. FINAL GRADING TO BE COMPLETED IMMEDIATELY AFTER COMPLETION OF AS-BUILT DRAWING.
14. THERE ARE NO WELLS WITHIN 75' OF PROPOSED SEPTIC SYSTEM.
15. THERE ARE NO STORM WATER DRAINAGE INFILTRATION SYSTEMS WITHIN 50' OF THE PROPOSED SEPTIC SYSTEM.

"SELECT FILL" SPECIFICATIONS

1. FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 3 INCHES.
2. UP TO 45% OF THE DRY WEIGHT OF THE SAMPLE MAY BE RETAINED ON THE #4 SIEVE.
3. OF THE MATERIAL THAT PASSES THE #4 SIEVE, IT MUST PASS THE FOLLOWING CRITERIA:

SIEVE SIZE	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50[1]	10-75
#100	0-20	0-5
#200	0-5	0-2.5

NOTES
1. 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%.
2. SIEVE ANALYSIS TO BE SUBMITTED TO THE DESIGN ENGINEER AND THE HEALTH DEPARTMENT BEFORE THE START OF CONSTRUCTION.

PROPOSED SEPTIC SYSTEM

DESIGN DATA

PROPOSED BEDROOMS:	5
REQUIRED SEPTIC TANK	1,250 GALLON
PROPOSED SEPTIC TANK	1,250 GALLON
PRIMARY LEACHING SYSTEM	
DESIGN PERCOLATION RATE	20.1-30.0 MIIN/INCH
E.L.A. REQUIRED	1,000.0 SF
LEACHING SYSTEM (LF)	100 LF OF GREENLEACH FILTER GLF 12-72
E.L.A. PROVIDED	100 LF X 10.1 ELA = 1,010.0 SF
RESERVE SYSTEM	
LEACHING SYSTEM (LF)	GEOMATRIX GST 6224 (56 LF)
E.L.A. PROVIDED	56 LF X 18.1 ELA = 1,013.6 SF

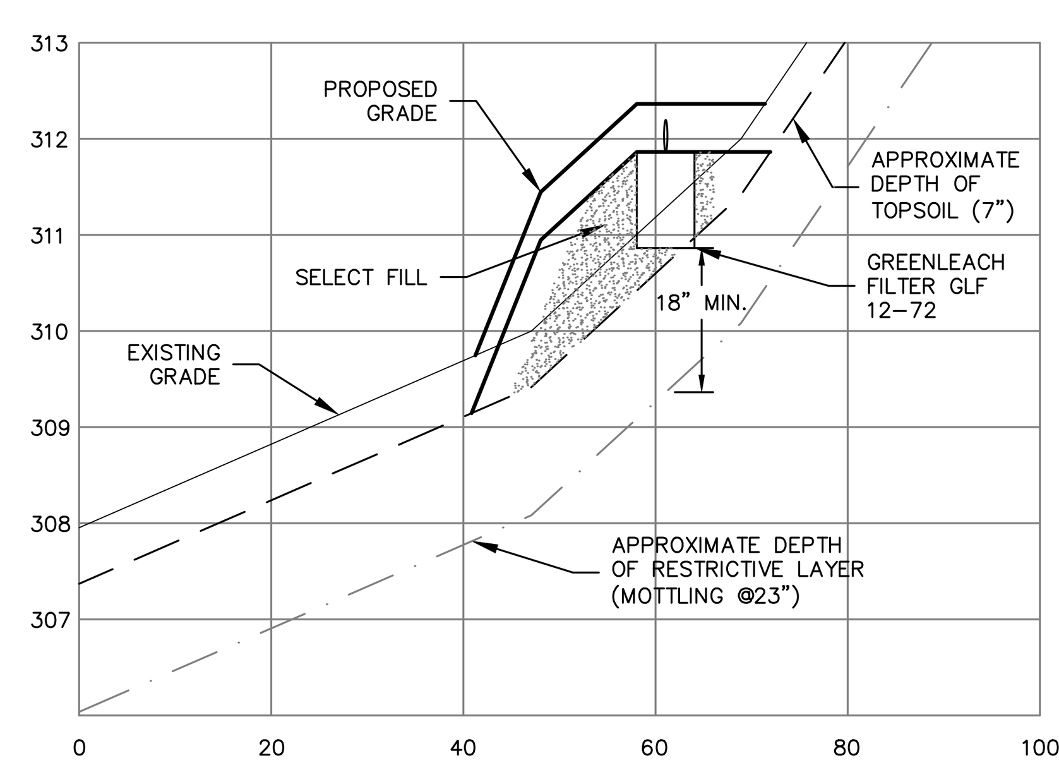
ELEVATIONS

INVERT AT HOUSE	314.00
SEPTIC TANK INLET INVERT	312.75
SEPTIC TANK OUTLET INVERT	312.50
DISTRIBUTION BOX	312.30
BOTTOM ELEV. ROW 1	311.30

M.L.S.S.

RESTRICTIVE LAYER					
DEEP TEST #	DT-1	DT-2	DT-5	DT-3	DT-4
ELEVATION	311.0	312.0	311.5	310.0	309.5
SYSTEM EMBEDMENT	–	–	–	D/G	D/G
DESIGN RL DEPTH	27"	23"	38"	23"	23"
AVERAGE DESIGN RL	[((27+23+38)/3)+((23+23)/2)]/2=26.2"				

HYDRAULIC FACTOR (HF)	
AVERAGE DESIGN RESTRICTIVE LAYER	26.2"
SLOPE	6.1-8.0%
DESIGN HYDRAULIC FACTOR	28.0
PERCOLATION FACTOR (PF)	
PERCOLATION RATE	20.1-30.0 MIN/INCH
DESIGN PERCOLATION FACTOR	1.50
FLOW FACTOR (FF)	
# OF BEDROOMS	5 BEDROOMS
DESIGN FLOW FACTOR	600/300 = 2.00
MINIMUM LEACHING SYSTEM SPREAD (M.L.S.S.)	
M.L.S.S.	(HF) x (PF) x (FF)
M.L.S.S. REQUIRED	28 X 1.50 X 2.00= 84 LF
ML.S.S. PROVIDED	100.0 LF



CROSS - SECTION 'A - A'

SCALE: HORIZ.1"=20'; VERT.1"=2'

GRADING & DRAINAGE NOTES

1. ABBREVIATIONS
   PVC = POLYVINYL CHLORIDE PIPE (SDR-35)
   HDPE = HIGH DENSITY POLYETHYLENE PIPE
   RCP = REINFORCED CONCRETE PIPE
   MH = MANHOLE
   CB = CATCH BASIN
   INV = INVERT
   LF = LINEAR FEET
   ACCMP = ASPHALT COATED CORRUGATED METAL PIPE
   HERCP = HORIZONTAL ELIPTICAL REINFORCED CONCRETE PIPE
2. THE CONTRACTOR SHALL FLUSH AND CLEAN ALL EXISTING ON-SITE STORM PIPING AND STRUCTURES THAT ARE TO BE MAINTAINED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING THE DRAINAGE STRUCTURES FOR THE INDICATED PIPE CONNECTIONS.
4. THE PIPE LENGTHS SHOWN ARE APPROXIMATE.
5. ALL PROPOSED CATCH BASINS SHALL HAVE A 2' SUMP, UNLESS OTHERWISE SPECIFIED.
6. ALL SLOPES TO BE NO GREATER THAN 3' HORIZONTAL TO 1' VERTICAL.

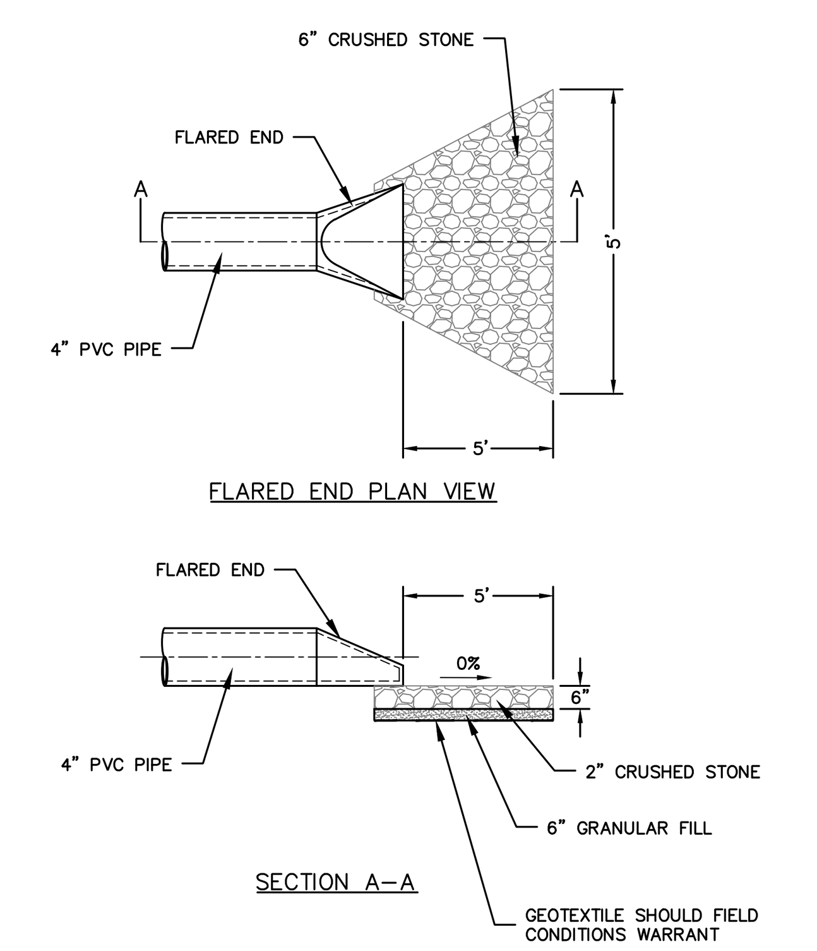
SEDIMENTATION & SOIL EROSION SPECIFICATIONS

1. THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.
2. ALL CONSTRUCTION ACTIVITIES SHALL PROCEED SO THAT POLLUTION OF ANY WETLANDS, WATERCOURSES, WATERBODY, AND OR CONDUIT CARRYING WATER, ETC. DOES NOT OCCUR. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES AND WATERBODIES, AND TO PREVENT, INSOFAR AS POSSIBLE EROSION ON THE SITE.
3. CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (2002) BY THE STATE OF CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

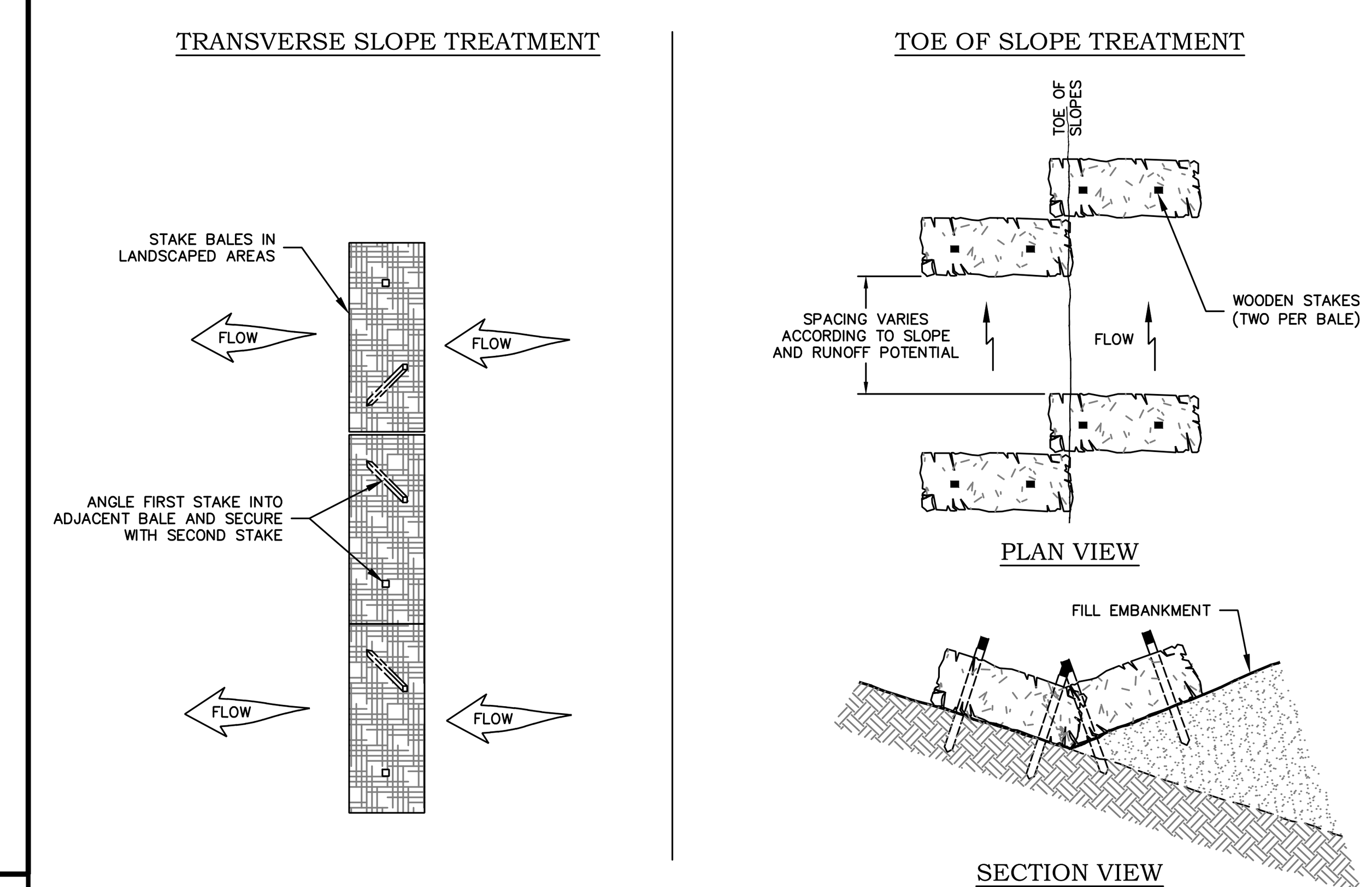
IMPLEMENTATION NOTES

1. THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE. ALL CONTROL MEASURES ARE TO BE MAINTAINED IN AN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. ADDITIONAL MEASURES ARE TO BE INSTALLED IF NECESSARY OR REQUIRED DURING CONSTRUCTION PERIOD.
2. LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM. RESTABLIZATION TO BE SCHEDULED AS SOON AS PRACTICAL.
3. POST AND FABRIC SILTATION BARRIERS SHALL BE INSTALLED AT THE TOE OF ALL CRITICAL CUT AND FILL SLOPES. SILT FENCES AND BARRIERS MUST BE CLEANED OR REPLACED WHEN SOIL HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
4. ALL STORM DRAINAGE OUTLETS MUST BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
5. SEDIMENT TRAPS, IF APPLICABLE, MUST BE CLEANED WHEN CAPACITY HAS BEEN REDUCED BY AN AVERAGE OF 2' OVER ITS TOTAL AREA OR TO 80% OF ITS DESIGN VOLUMES, WHICHEVER OCCURS FIRST.
6. SEDIMENT REMOVED FROM THE CONTROL STRUCTURES SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH THE INTENT OF THE PLAN AND IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
7. FILL MATERIAL SHALL BE FREE FROM DEBRIS PERISHABLE OR COMBUSTIBLE MATERIAL AND FROZEN OR WET EARTH OR STONES LARGER THAN 6 INCHES IN MAXIMUM DIMENSION. FILL SHALL BE PLACED IN MAXIMUM 12 INCH LOOSE LIFTS AND COMPACTED TO WITHIN 90% OF THE MODIFIED PROCTOR TEST RESULT.
8. PAVEMENT BASE COURSE MUST BE PLACED IN ALL PROPOSED PAVEMENT AREAS UPON COMPLETION OF FINE GRADING.
9. PERMANENT LANDSCAPED AREAS SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. MULCH AS NECESSARY FOR SEED PROTECTION AND ESTABLISHMENT. LIME AND FERTILIZE PRIOR TO PERMANENT SEEDING.
   - 9.1. TOPSOIL PREPARATION:
     - 9.1.1. TOPSOIL SHOULD BE A MINIMUM OF FOUR INCHES DEEP (COMPACTED) BEFORE SEEDING.
     - 9.1.2. HAVE TOPSOIL TESTED FOR PH, ADD LIME AS NECESSARY TO ACHIEVE PH OF 6.5. APPLY FERTILIZER AT A RATE OF 300 POUNDS PER ACRE OR SEVEN POUNDS PER 4,000 SQUARE FEET USING 10-20-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP DRESSING.
     - 9.1.3. WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE ALL CLAY OR SILTY SOIL AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEED BED WHEREVER FEASIBLE.
     - 9.1.4. REMOVE FROM THE SURFACE ALL STONES ONE INCH OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMP, OR OTHER UNSUITABLE MATERIAL.
     - 9.1.5. INSPECT SEED BED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT SOIL COMPACT, THE AREA MUST BE RE-TILLED AND COMPACTED AS ABOVE.
   - 9.2. SEED MIXTURE (APPLY AT A RATE OF 200 POUNDS/ACRE):
     - 9.2.1. 10% KENTUCKY BLUEGRASS – BARON MIX
     - 9.2.2. 20% PERENNIAL RYEGRASS
     - 9.2.3. 70% TURF TYPE TALL FESCUE
10. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR ALL PAVED ROADWAYS ON AND OFF SITE AND MUST ENSURE THE SITE IS FREE OF SITE GENERATED SEDIMENT AT ALL TIMES. DUST SHALL BE CONTROLLED BY SPRINKLING OR ANOTHER APPROVED METHOD.
11. ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSPECTED ON A DAILY BASIS AND CLEANED IMMEDIATELY AFTER EACH STORM.
12. WHERE DEWATERING IS NECESSARY, THERE SHALL NOT BE A DISCHARGE DIRECTLY INTO WETLANDS OR WATERCOURSES. PROPER METHODS AND DEVICES SHALL BE UTILIZED TO THE EXTENT PERMITTED BY LAW, SUCH AS PUMPING WATER INTO A TEMPORARY SEDIMENTATION STRUCTURE OR BOWL, PROVIDING SURGE PROTECTION AT THE INLET AND THE OUTLET OF PUMPS, OR FLOATING THE INTAKE OF THE PUMP, OR OTHER METHODS TO MINIMIZE AND RETAIN THE SUSPENDED SOLIDS. IF PUMPING OPERATION CAUSES TURBIDITY PROBLEMS, THE OPERATION SHALL CEASE UNTIL FEASIBLE MEANS OF CONTROLLING TURBIDITY ARE DETERMINED AND IMPLEMENTED.
13. THE RESPONSIBILITY FOR: IMPLEMENTING THE EROSION AND SEDIMENT CONTROL PLAN, INFORMING ALL CONCERNED OF THE REQUIREMENT OF THE PLAN; NOTIFYING THE PLANNING AND ZONING COMMISSION, ITS DESIGNATED REPRESENTATIVE OF ANY TRANSFER OF RESPONSIBILITY AND SEEING THAT A COPY OF THE PLAN IS RECEIVED BY ANY SUCCESSOR IN INTEREST TO THE TITLE OF THE LAND OR ANY PORTION THEREOF IS ASSIGNED TO THE OWNER OF RECORD.
14. ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION, WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.

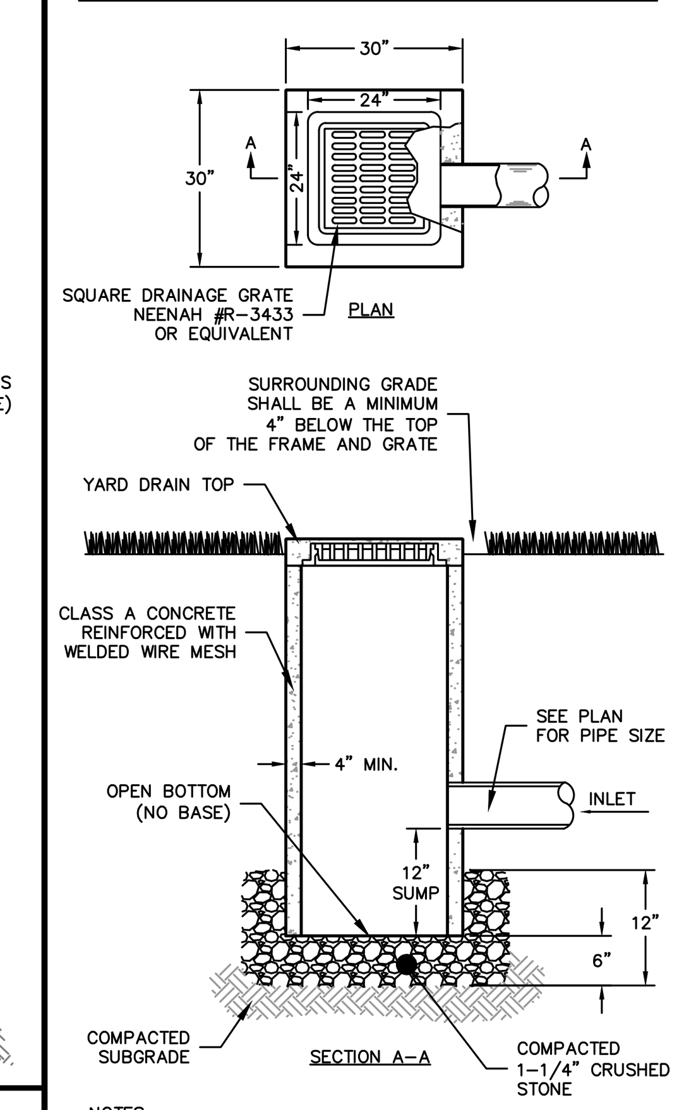
CRUSHED STONE APRON



HAY BALE EROSION PROTECTION

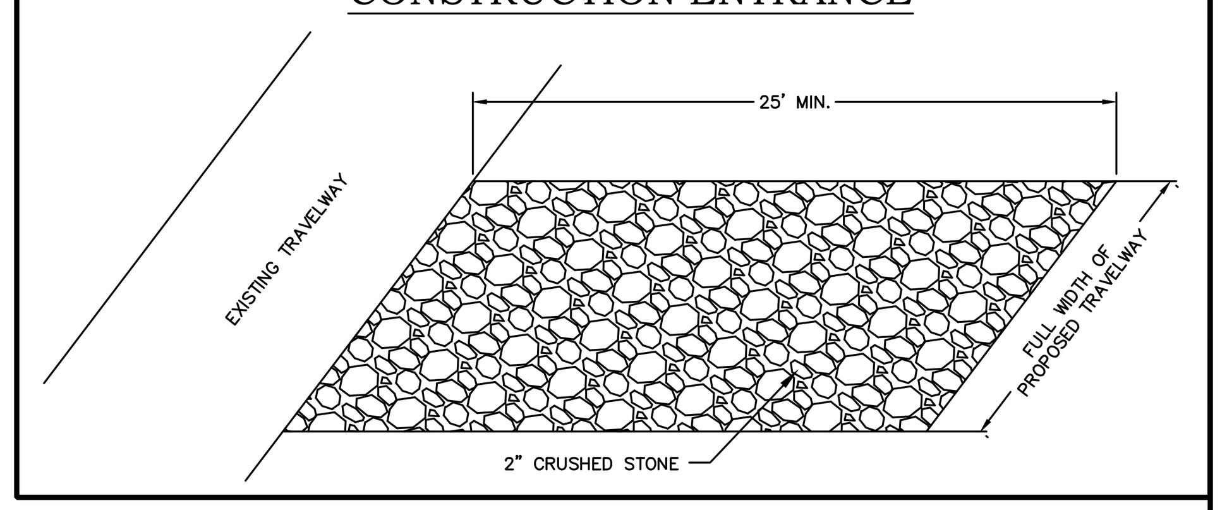


30" YARD DRAIN OVERFLOW



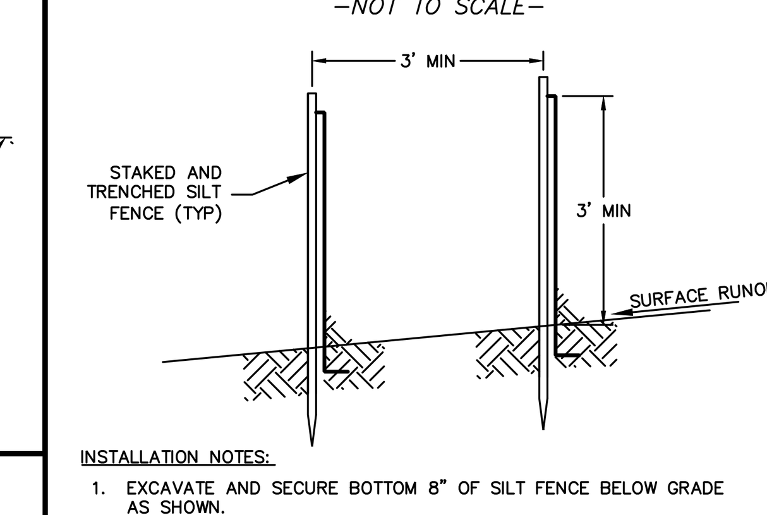
NOTES:
1. YARD DRAIN OVERFLOW IS NOT DESIGNED TO BE IN VEHICULAR TRAFFIC AREAS.
2. YARD DRAIN IS DESIGNED TO EXPEL WATER RATHER THAN ACCEPT WATER, THEREFORE, IT IS IMPERATIVE THAT THE SURROUNDING AREAS ARE GRADED TO NOT ALLOW SURFACE WATER FLOW TO ENTER.

CONSTRUCTION ENTRANCE



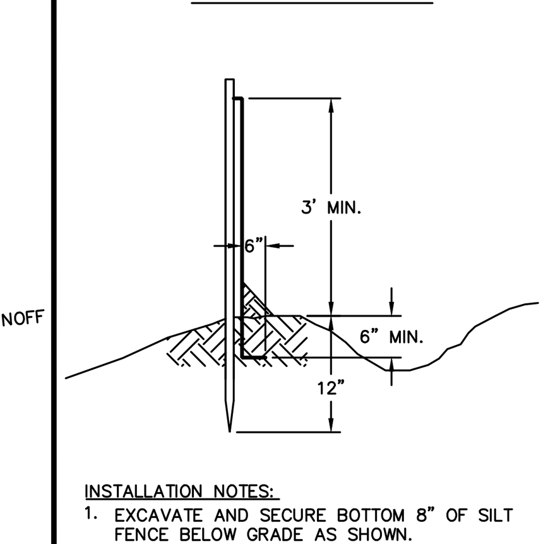
DOUBLE SILT FENCE

-NOT TO SCALE-



INSTALLATION NOTES:
1. EXCAVATE AND SECURE BOTTOM 8" OF SILT FENCE BELOW GRADE AS SHOWN.
2. EXCEPT FOR THE END POST, DRIVE ALL POST INTO THE GROUND AT BACK SIDE OF TRENCH SPACED A MAXIMUM OF 10 FT O. C.

SILT FENCE



INSTALLATION NOTES:
1. EXCAVATE AND SECURE BOTTOM 8" OF SILT FENCE BELOW GRADE AS SHOWN.
2. EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF TRENCH SPACED A MAXIMUM OF 10 FT O. C.

DEEP TESTS

TEST HOLES DONE BY OTHERS ON 1/3/2019

DT 1
0"-7" TOPSOIL
7"-27" BROWN SILTY LOAM
27"-78" GREY/BROWN SILT; VERY COMPACT
ROOTS @ 15"
MOTTLING @ 27"
WATER @ 46"
NO LEDGE
RESTRICTIVE @ 27"

DT 2
0"-12" TOPSOIL
12"-23" BROWN SILTY LOAM
23"-83" GREY/BROWN COMPACT SILT; W/FINE SAND
ROOTS @ 12"
MOTTLING @ 23"
WATER @ 39"
NO LEDGE
RESTRICTIVE @ 23"

DT 3
0"-12" TOPSOIL
12"-23" BROWN SILTY LOAM
23"-72" GREY/BROWN COMPACT SILT; W/FINE SAND
ROOTS @ 18"
MOTTLING @ 23"
WATER @ 23"
NO LEDGE
RESTRICTIVE @ 23"

DT 4
0"-10" TOPSOIL
9"-23" BROWN SILTY LOAM
23"-67" GREY/BROWN COMPACT SILTY SAND
ROOTS @ 18"
MOTTLING @ 23"
WATER @ 23"
NO LEDGE
RESTRICTIVE @ 23"

DT 5
0"-13" TOPSOIL
13"-38" ORANGE/BROWN SILTY LOAM
38"-68" GREY/BROWN COMPACT SANDY SILT
ROOTS @ 28"
MOTTLING @ 38"
WATER @ 42"
NO LEDGE
RESTRICTIVE @ 38"

DEEP TESTS

TESTED ON 4/19/2022 BY B&B ENGINEERING

TP A
0-11" TOPSOIL
11"-35" ORANGE BROWN SILTY SANDY LOAM
35"-91" GREY COMPACT SILTY SANDY LOAM
MOTTLING @ 27"
WATER @ 36"
NO LEDGE

TP B
0-10" TOPSOIL
10"-25" ORANGE BROWN SILTY SANDY LOAM
25"-92" GREY COMPACT SILTY SANDY LOAM
MOTTLING @ 25"
WATER @ 56"
NO LEDGE
ROOTS @ 19"

TP C
0-10" TOPSOIL
10"-31" ORANGE BROWN SILTY SANDY LOAM
31"-80" GREY COMPACT SILTY SANDY LOAM
MOTTLING @ 20"
WATER @ 32"
NO LEDGE
ROOTS @ 55"

TP D
0-13" TOPSOIL
13"-24" ORANGE BROWN SILTY SANDY LOAM
24"-49" GREY COMPACT SILTY SANDY LOAM
MOTTLING @ 28"
WATER @ 33"
NO LEDGE
ROOTS @ 28"

TP E
0-12" TOPSOIL
12"-24" ORANGE BROWN SILTY SANDY LOAM
24"-49" GREY COMPACT SILTY SANDY LOAM
MOTTLING @ 28"
WATER @ 33"
NO LEDGE
ROOTS @ 28"

TP-102
0-24" TOPSOIL
24"-46" ORANGE BROWN SILTY SANDY LOAM
46"-82" GREY COMPACT SILTY SANDY LOAM
MOTTLING @ 39"
WATER @ 56"
NO LEDGE

PERCOLATION TESTS

TEST STARTED 20.5" BELOW GRADE

P-1	READING	RATE (MIN/IN)
14:59	8.50"	–
15:03	9.75"	3.2
15:08	10.50"	6.7
15:13	11.25"	6.7
15:18	11.75"	10.0
15:28	12.75"	10.0
15:42	13.75"	14.0
15:52	14.50"	13.3
16:05	15.00"	26.0
16:34	16.50"	19.3
16:49	17.00"	30.0
17:04	17.50"	30.0

TEST STARTED 22" BELOW GRADE

P-2	READING	RATE (MIN/IN)
14:57	10.50"	–
15:02	11.75"	4.0
15:07	12.75"	5.0
15:12	13.75"	5.0
15:17	14.00"	20.0
15:27	15.25"	8.0
15:41	16.25"	14.0
15:51	16.75"	20.0
16:04	17.25"	26.0
16:33	18.25"	29.0
16:48	18.75"	30.0
17:03	19.25"	30.0

TEST STARTED 18.5" BELOW GRADE

P-3	READING	RATE (MIN/IN)
09:34	6.50"	–
09:44	9.50"	3.3
09:54	11.25"	5.7
10:04	12.50"	8.0
10:14	13.50"	10.0
10:24	14.50"	10.0
10:34	15.25"	13.3
10:44	16.00"	13.3

No.	Date	REVISION DESCRIPTION

B&B ENGINEERING
15 Research Drive
Woodbridge, CT 06525
P: (203) 881-8145
www.bbengrs.com
Land Surveying, Professional Engineering & Land Use Consultants

PROPOSED
SITE DEVELOPMENT PLAN
OF
48 KETTLE CREEK ROAD
WESTON, CONNECTICUT
PREPARED FOR
TOM KELLEY
TOWNE BUILDING & DEVELOPMENT
28 HERMIT LANE
WESTPORT, CONNECTICUT

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

BRYAN P. NESTERIAK, CT. P.E.,L.S. 23556

Date	4/2/2024
Scale	AS NOTED
Job No.	1097
Drawing No.	2 of 2

LANDTECH

Civil & Structural Engineers
Environmental Engineers & Scientists
Site Planners
Permit Coordination & Management
Construction Management
Construction Finance

May 8, 2020

Inland Wetland & Watercourse Delineation
48 & 50 Kettle Creek Road
Weston, Connecticut

An on-site investigation of the two residential properties at 48 & 50 Kettle Creek Road in Weston, CT was conducted on February 6, 2018. The purpose of the site investigation was to identify and delineate Connecticut inland wetlands and watercourses on the project site.

According to the Connecticut General Statutes (CGS Sections 22a-36 to 22a-45), inland wetlands are defined as areas of poorly drained, very poorly drained, floodplain and alluvial soils as delineated by a soil scientist. Watercourses are rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal or intermittent, public or private.

The evaluation was conducted by walking the property and examining the upper 20 inches of the soil profile with a spade and auger in selected areas. Wetland boundaries were marked in the field using sequentially numbered surveyors flagging (WL #1 – WL #28 and WL #31 – WL #45). The approximate locations of the flagged wetland boundaries are shown on the attached sketch.

Two wetland areas were identified on the properties. A north-south aligned broad swale west of the dwellings contains wetland soils and is delineated by wetland flags WL #1 through WL #28. A landscape depression containing wetland soils and a man-made pond lies in the northeast corner of the site. The wetland soils in both areas are identified as Ridgebury fine sandy loam. The Ridgebury, soils are poorly drained soils formed in lodgment till derived mainly from granite, gneiss and/or schist. They are commonly shallow to a densic contact (hardpan). They are nearly level to gently sloping soils in depressions in uplands. They also occur in drainageways in uplands, in toeslope positions of hills, drumlins, and ground moraines, and in till plains..

The sites non-wetland soils were not evaluated in detail. Observations regarding non-wetland soils were made in the process of identifying and delineating the wetland soils. Upland soils on the project site are identified as Paxton and Montauk fine sandy loams. The Paxton and Montauk soils consist of well drained loamy soils formed in lodgment till. The soils are very deep to bedrock and moderately deep to a densic contact (hardpan). These soils are on upland hills, drumlins, till plains, and ground moraines.

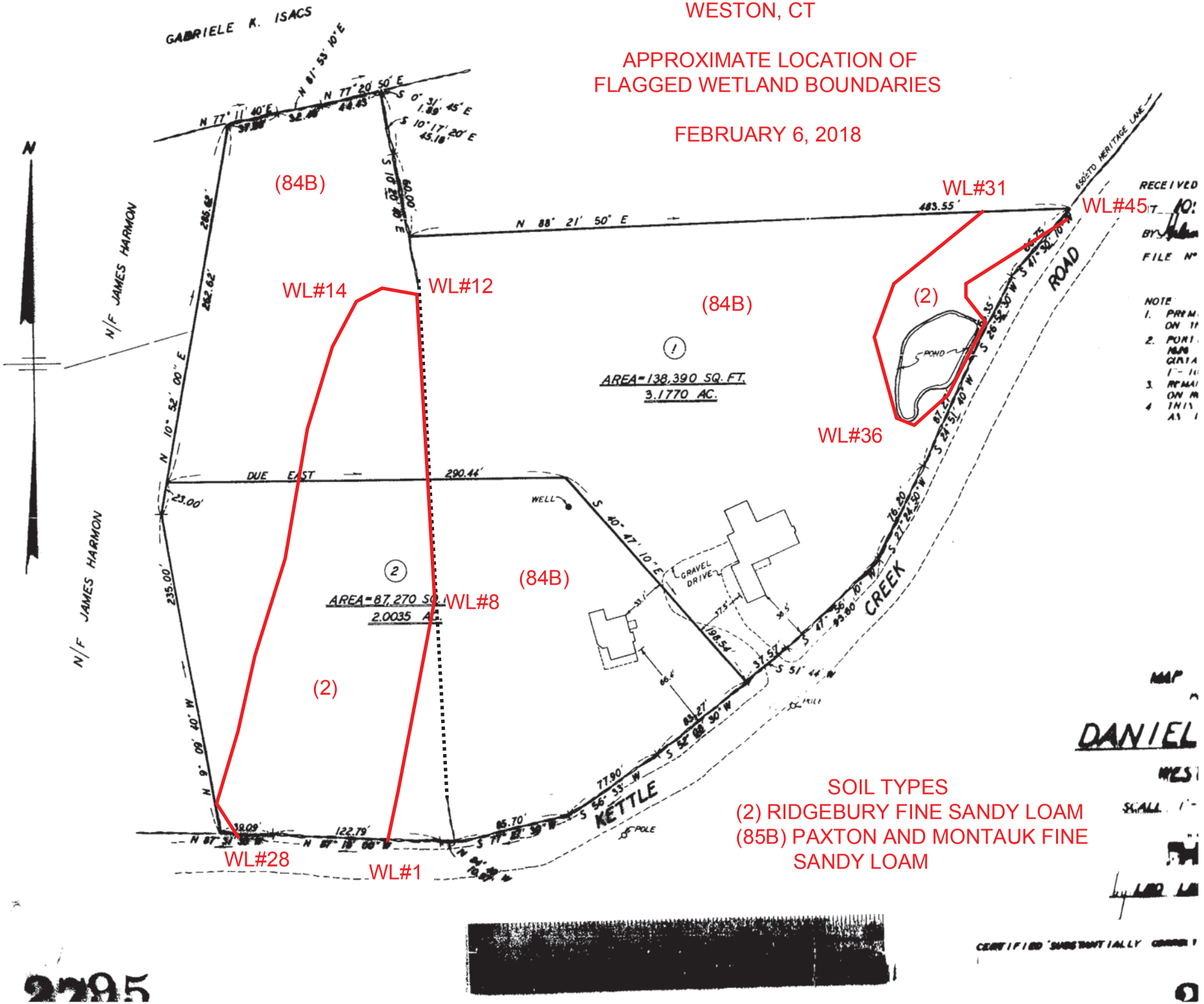
Christopher P. Allan
Professional Registered Soil Scientist
Professional Wetland Scientist (No. 266)

518 Riverside Avenue Westport, CT 06880 203.454.2110 phone 203.454.4971 fax www.landtechconsult.com facebook.com/landtechconsult

48 & 50 KETTLE CREEK ROAD
WESTON, CT

APPROXIMATE LOCATION OF
FLAGGED WETLAND BOUNDARIES

FEBRUARY 6, 2018



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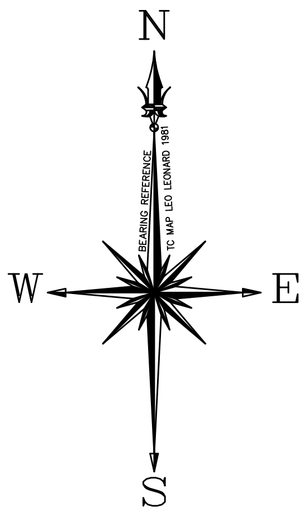

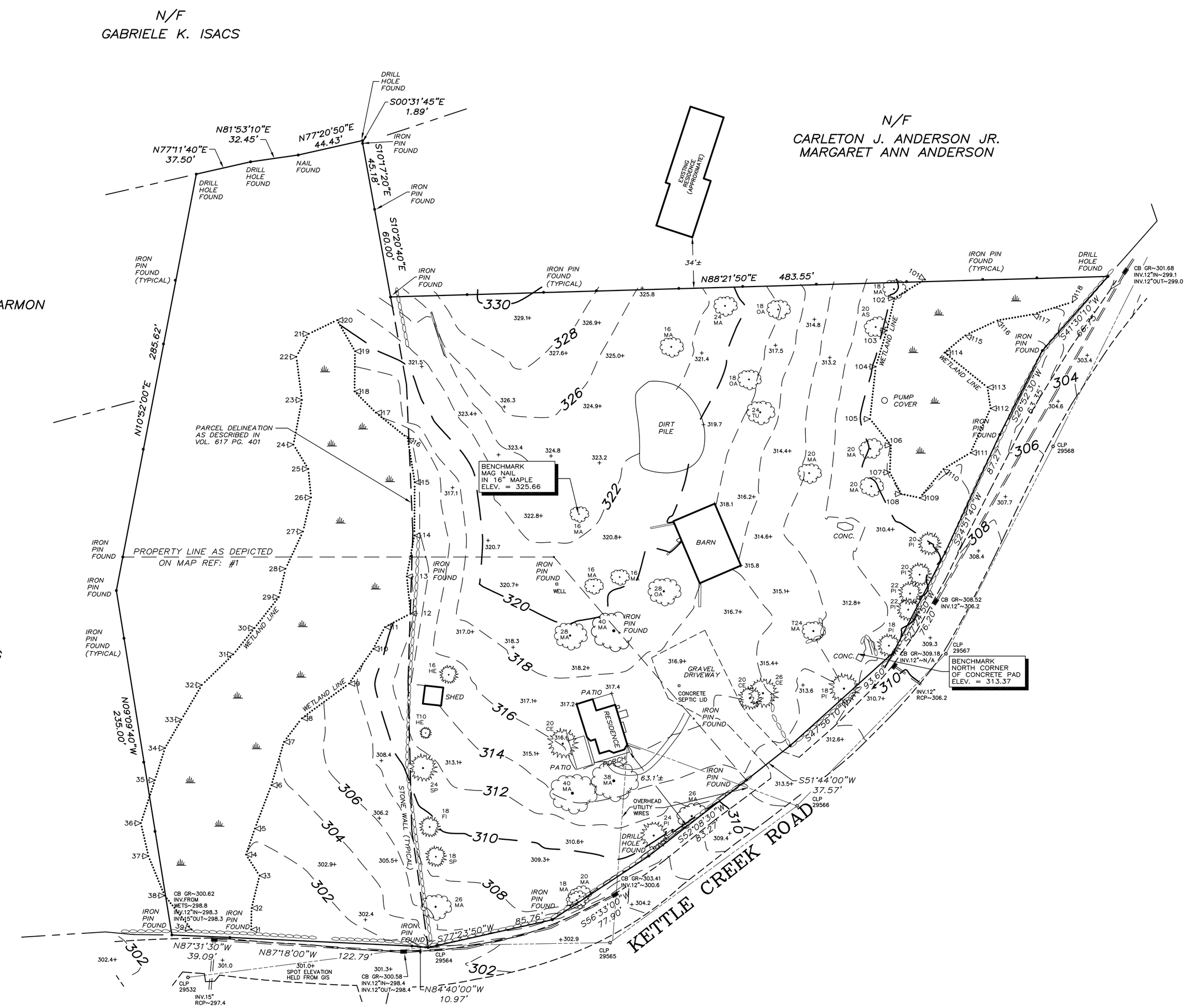

TREE LEGEND

AP = APPLE
AS = ASH
BB = BLACK BIRCH
BC = BEECH
BI = BIRCH
CE = CEDAR
CH = CHERRY
CO = COTTONWOOD
DO = DOGWOOD
EL = ELM
FI = FIR
HE = HEMLOCK
HI = HICKORY
HB = HORN BEAM
JU = JUNIPER
LO = LOCUST
MA = MAPLE
MG = MAGNOLIA
OA = OAK
OR = ORNAMENTAL
PO = POPLAR
PN = PINE
SA = SASSAFRAS
SP = SPRUCE
SY = SYCAMORE
TU = TULIP

TOTAL AREA:

#48 & #50 KETTLE CREEK ROAD

225,697± S.F.
5.181± ACRES

NOTES:

THIS SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1THROUGH 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES – "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. 9/26/96. IT IS A TOPOGRAPHY SURVEY BASED ON A DEPENDENT RESURVEY OF LEONARD SURVEYORS LLC SURVEY NOTES AS "MAP REFERENCE # 1" CONFORMING TO CLASS "A2/T2" ACCURACY AND IS INTENDED TO BE USED FOR SITE PLANNING PURPOSES.

PROPERTY IS DEPICTED AS LOT 29-3-49 IN THE ASSESSORS OFFICE.

PROPERTY IS LOCATED IN TWO ACRE RESIDENTIAL ZONE.

ZONE AND SETBACKS ARE SUBJECT TO THE DETERMINATION OF THE ZONING ENFORCEMENT OFFICER.

REFER TO MAP Nos. 1130, 1626, 1669, 2318 AND 2775 ON FILE IN THE TOWN CLERKS OFFICE.

MAP REFERENCE #1 "PLOT PLAN PREPARED FOR DANIEL OFFUTT TRUST, 48 & 50 KETTLE CREEK ROAD, WESTON, CONNECTICUT. 15 MARCH 2018. PREPARED BY LEONARD SURVEYORS LLC.

UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS IF ANY ARE NOT DEPICTED OR NOTED.

DISTANCES DEPICTED +/– FROM BUILDINGS TO PROPERTY LINES ARE SCALED ONLY AND ARE NOT TO BE USED TO ESTABLISH BOUNDARIES.

THIS SURVEY WAS PREPARED FOR A SPECIFIC PURPOSE, ANY USE OTHER THAN THAT WHICH WAS ORIGINALLY INTENDED IS A MISUSE OF THIS INFORMATION AND RENDERS THE PREPARERS DECLARATION NULL AND VOID.

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS SURVEY, WHICH BEARS THE LICENSED SURVEYORS LIVE SIGNATURE AND EMBOSSED SEAL, RENDERS ANY DECLARATION NOTED HEREON NULL AND VOID.

BRAUTIGAM LAND SURVEYORS, P.C.
90 South Main Street
Newtown, Connecticut 06470
Telephone (203) 270-7810
E-mail Surveying@BrautigamLand.com

TO MY KNOWLEDGE AND BELIEF, THIS SURVEY AND MAP ARE "SUBSTANTIALLY CORRECT" AS NOTED HEREON.

PAUL A. BRAUTIGAM CT. LIC. No. 15166

THE SURVEY DEPICTED HEREON IS NULL AND VOID WITHOUT THE LICENSED SURVEYORS LIVE SIGNATURE AND EMBOSSED SEAL.

JOB No. 9320001-01	SCALE: 1"= 40'	DRAWN BY: SRM
FIELD NOTES: 253/138	DATE: 6/12/2020	CHECKED BY: PAB

© 40 0 40 80 120
9320001-01.DWG

No.	DATE	REVISIONS
1	7/8/2020	ADDED CATCH BASINS, INVERTS AND SERVICE POLES.

TOPOGRAPHY SURVEY
PREPARED FOR
TOWNE BUILDING & DEVELOPMENT
48 & 50 KETTLE CREEK ROAD
WESTON, CONNECTICUT

TOWN of WESTON, CONNECTICUT

Incorporated 1787

Conservation Commission

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")

PROPERTY ADDRESS: 48 Kettle Creek Road

Assessor's Map # 29 **Block #** 3 **Lot #** 49

PROJECT DESCRIPTION *(general purpose)* Proposed construction will consist of a new dwelling, pool, driveway, patio, deck, covered porch, walkways and steps.

Total Acres 2.35 Total Acres of Wetlands and Watercourses 0.5

Acreage of Wetlands and Watercourses Altered 0 Upland Area Altered 0.09

Acres Linear Feet of Stream Alteration 0 Total Acres Proposed Open Space _____

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

Name: Tom Kelley (Towne Building and Development LLC) Phone: 203-984-2033

Address: 28 Hermit Lane Westport, CT 06880

Email: towne.build@gmail.com

APPLICANT/AUTHORIZED AGENT:

Name: Bryan Nesteriak Phone: 203-881-8145

Address: 15 Research Drive, Suite 3, Woodbridge CT 06525

Email: bn@bbengrs.com

CONSULTANTS: *(Please provide, if applicable)*

Engineer: Bryan Nesteriak (B&B Engineering) Phone: 203-881-8145

Address: 15 Research Drive, Suite 3, Woodbridge CT 06525 Email: bn@bbengrs.com

Soil Scientist: Christopher Allan (Landtech) Phone: 203-454-2110

Address: 518 Riverside Ave Westport, CT 06880 Email: _____

Legal Counsel: N/A Phone: _____

Address: _____ Email: _____

Surveyor: Brautigam Land Surveyors, P.C. Phone: 203-270-7810

Address: 90 South Main Street Newtown, CT 06470 Email: Surveyor@BrautigamLand.com

PROPERTY INFORMATION

Property Address: 48 Kettle Creek Road

Existing Conditions *(Describe existing property and structures)*: Existing property consists of a dwelling, gravel driveway, shed, porch, patio, walkway and steps.

Provide a detailed description and purpose of proposed activity *(attach sheet with additional information if needed):* Proposed construction will consist of a new dwelling, pool, driveway, patio, deck, covered porch, walkways and steps.

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

Square feet of proposed impervious surfaces *(roads, buildings, parking, etc.)*: 9,500 SF

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:

Material to be removed for storm water system, septic, dwelling and pool (outside of upland review area).
Material to be added consist of topsoil in the area southwest of the poo (inside of upland review area).

Description, work sequence, and duration of activities:

Install soil erosion & sedimentation controls, install utilities, construct building, driveway, deck, pool, porch, landscape & stabilize all disturbed areas.

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

All alternatives considered require impact closer to wetlands.

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

_____

Signature of Authorized Agent Date

FOR OFFICE USE ONLY

Administrative Approval _____

Initials Date

TOWN OF WESTON
INLAND WETLANDS AND WATERCOURSE AREA
APPLICATION REQUIREMENTS AND PROCEDURES

In addition to the application form for permission to conduct a regulated activity within inland wetlands and watercourse area, applicants must submit the following information in accordance to scheduled submittal date. An incomplete application may result in a delay:

1. A signed letter of permission from the Owner of Record.
2. Fee in accordance to the Conservation Commission fee schedule.
3. Nine (9) collated copies of the following:
   - ☐ Completed Inland Wetland and Watercourses Application
   - ☐ Two (2) 24" x 36" Original and Seven (7) 24" x 36" Copies of the following
     - A-2 Survey map and/or site plan of at least 1" = 40'
       - Title of project
       - Name, signature, and Connecticut license professional seal(s).
       - Date map prepared, date of most recent revision, and brief description of revision.
       - Show locations of wetlands boundary, watercourses (with direction of flow, water depth, and bottom characteristics) and other pertinent features and structures such as rock ledges, stonewalls, utility lines.
       - Show location and extent of proposed activities including material and soil stockpiles, erosion and sedimentation controls, ingress and egress patterns.
       - Indicate in acres or square feet of wetlands/watercourse disturbance.
       - North arrow, Scale Bar, Legend, Property lines.
       - Edge of 100' Upland Review Area.
       - Existing and Proposed Conditions, Grading and Drainage Location
       - Double Silt fence detail (slit fence/hay bale/slit fence) configuration.
       - Construction Sequence.
       - Contour lines – 2 foot intervals.
       - Topographic *(This area may be enlarged for certain activities on/or above steep slopes or other physical conditions that may adversely impact wetlands)*.
   - ☐ Drainage report prepared by a professional engineer registered in the State of Connecticut.
4. One electronic copy of all submitted materials emailed to conservationplanner@westonct.gov
5. Westport/ Weston Health District Approval, including a copy of the septic plan or B100 plan stamped and signed by the Health Department *(if applicable)*.
6. If a Soil Scientist is involved, his/her name, written report, and field sketch.
7. List of names and addresses of adjacent property owners and abutters, include addressed and stamped business envelopes.
8. Proof of certified mailings to Aquarion Water Company and adjoining municipalities*, if applicable*.
9. All deeds, conservation easements, or restrictions associated with the property.
10. Location of the 100 year flood line, *if applicable*.
11. Tree removal plan of all trees greater than 12" in diameter.
12. Diagrams of alternatives considered.
13. Completed Part II of the DEEP Statewide Inland Wetlands & Watercourses Activity Reporting Form.

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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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.

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INSTRUCTIONS FOR COMPLETING

THE STATEWIDE INLAND WETLANDS & WATERCOURSES ACTIVITY REPORTING FORM

Use a separate form to report EACH action taken by the Agency. Complete the form as described below.
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 Connecticut 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: https://media.clear.uconn.edu/data/watershed_maps/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 inland wetlands agency.

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

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

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: _____ month: _____
2. ACTION TAKEN (see instructions - one code only): _____
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
   (print name) _____ (signature) _____

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

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print 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 (print name(s)): _____, _____
6. LOCATION (see instructions for information): USGS quad name: Westport or number: 108
   subregional drainage basin number: 7200-24
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): Bryan Nesteriak
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 48 Kettle Creek Road, Weston
   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☒ description: Proposed construction of a new single family dwelling on 2.35 acres.
9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): A
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 1, 2, 10, 12
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
    wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.09 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO