



DiPrete Engineering

February 13, 2026

Diane M. Williamson, ALCP, CFM
Director, Community Development
Town of Bristol
9 Court Street
Bristol, Rhode Island 02809

RE: Comfort Inn and Suites
Gooding Avenue
AP 111 Lot 1
Bristol, Rhode Island
Project #: 2536-001-B01

Dear Ms. Williamson:

On behalf of the applicant, D & M Boca Development, LLC, DiPrete Engineering respectfully submits the following response to correspondence received January 23, 2026 from the Planning Department, the correspondence as presented to the planning board public hearing made by Mr. Spinard.

1. *The wrong soil textural classification was used. The soil is classified as Pittstown Silt Loam by NRCS. The sieve analysis show the soil to be silt loam.*

The NRCS has identified soils as Pittstown Silt loam. The NRCS classifications are typically used for the purpose of ground cover to determine curve numbers.

However, in order to determine the specific infiltration rates to be used for best management practice (BMP) analysis, the RIDEM Stormwater Design Manual (RIDISM) requires excavated soil evaluation (SEV) test pits within the area of actual stormwater control structure(s). The SEV's must be completed by a RIDEM licensed soil evaluator.

Mr. Spinard has sampled and analyzed a soil sample at 20 Dixon Avenue, 1,000 feet from the proposed site. This data is not applicable and would not be allowed as a determinative evaluation by RIDEM for the proposed hotel site.

Soil evaluation test holes were completed on site by SITEC, John Keegan, RIDEM Soil Evaluator #D-4006. Mr. Keegan completed 7 soil evaluation test holes, all of which were determined to be sandy loam texture (1.02 inches/hour infiltration rate). As described within the Stormwater Management Report and approved by RIDEM, based on the presence of Hydrologic Group D soil and former wetlands within the site footprint we effectively provided an additional factor of safety of 2 with a conservative infiltration rate of approximately one-half (0.52 inches/hour), equating to a "Loam" soil texture type.

DiPrete Engineering obtained a soil sample within the area of the proposed sand filter, TP#4. The sieve analysis categorized the soil texture as loam. As such, we confirmed the conservative infiltration rate applied and the "Loam" soil type was found to be a valid basis of infiltration design.

2. *An Incorrect Infiltration Rate was used. The infiltration rate should be silt loam, 0.27 inch/hr, not for Loam, 0.52 inch/hr.*

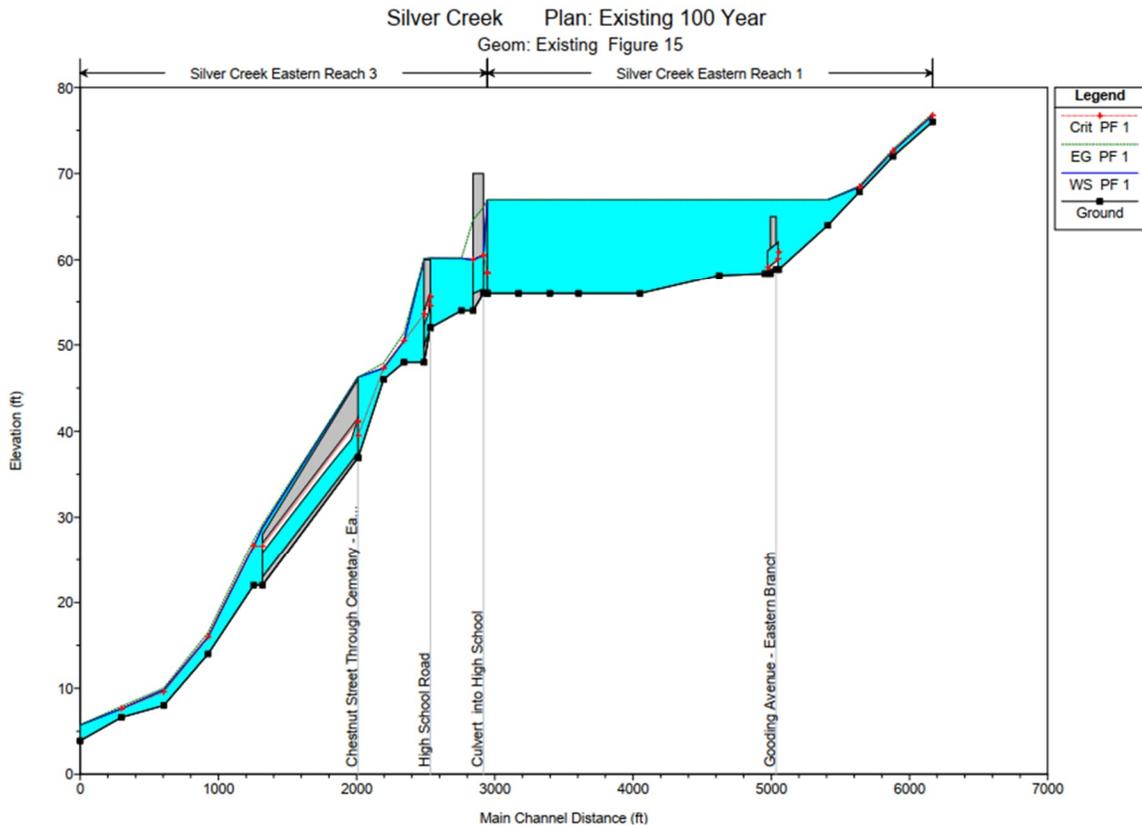
As noted above DiPrete Engineering had utilized the soil texture to reflect the soils within the area of the sand filter. This is classified as “Loam” with an infiltration rate pf 0.52 inches/hr . The watershed analysis demonstrated a reduction of stormwater discharge rate and a reduction of stormwater discharge volume.

Subsequent analysis of the stormwater management system has been completed with an assumed soil texture of “Silt Loam” with an infiltration rate of 0.27 inch/hr. The result has demonstrated a continued reduction in stormwater discharge rate and a reduction in stormwater discharge volume from pre to post-development conditions.

The stormwater management system analysis achieves the attenuation of stormwater in either case.

3. *The wrong method of analysis was used. The effect of flooding within the Silver Creek must be analyzed with HEC RAS given the irregularity of the channel and resultant irregular channel capacity.*

The flooding from the 100-year storm has been quantified with the HEC RAS analysis. A HEC RAS model has been analyzed by FEMA (2014) and by BETA Engineering (2007). Both methods had determined that the floodplain was caused as a continuous tail water elevation from the Mount Hope High School culverts backed up to the Gooding Avenue roadway. See following figure from this BETA watershed study:



The floodplain between the high school and Gooding Avenue behaves like a pond with constant elevation for the 100-year storm event. DiPrete Engineering considered the highest tail water elevation retained (elevation 67.0). A reduction of stormwater runoff rate and volume was designed to discharge to the Silver Creek tail water elevation. No alteration or filling of the Silver Creek tail water elevation is proposed; the minimum existing elevation onsite to be filled occurs near Sand Filter B and Headwall-19 between elevation 67.5 to 68.0.

Mr. Spinard's recommended modeling of the Silver Creek channel capacity would have no effect as the channel is under the tail water of the Mt Hope High School culverts. Mr. Spinard's opinion to model with HEC-RAS was not supported by the RIDEM staff engineers during permitting.

4. *There is existing flooding in the neighborhood. The proposed hotel development will make it worse.*

The location of the Silver Creek floodplain is mapped. The proposed hotel development stormwater management system will result in a reduction of stormwater discharge rate and stormwater discharge volume. The result will be no adverse effect on the existing flooding in the neighborhood.

Mr. Spinard's opinion of increased flooding was not supported by the RIDEM during permitting.

5. *Discontinued use of StormTech SC-740. The structure provided is not feasible.*

The underground sand filter has been approved with the ADS StormTech SC-740 is 85.4" L x 51"W x 30"H. This structure can be found online and is available by First Supply, Atlantic Plumbing Supply.

Alternatives with similar dimensions are the Triton S-22 Stormwater Chamber 55" L x 35"W x 30" H, and the ADS SC-800 with the same height and width as the SC-740 but 3 inches taller.

In any case, the contractor will need design engineer approval of the specifications prior to construction. We are also amenable to add a condition to future approvals requiring Public Works review and concurrence with drainage shop drawings prior to construction.

6. *RIDEM OWR review had noted deficiencies.*

A Letter of concern was submitted to the RIDEM by the Bristol Town Council dated December 8, 2023, with the request for careful review of flooding concerns within the subject site area and down gradient from the subject site area. The Bristol Conservation Commission has submitted a letter of concern dated December 7, 2023, with regards to the effectiveness of the wetlands. A letter of objection was submitted dated December 6, 2023, by Emily Spinard with reference to flooding, wetland alteration, and potential adverse downgradient effects.

The RIDEM staff engineers had raised the questions received during the application review. There are currently no outstanding comments and everything has been addressed to meet RIDEM's rules and regulations. The questions were addressed by our firm to the satisfaction of the RIDEM whereby approval was received under Freshwater Wetlands Permit No. 22-0264.

The above review is provided for the conceptual Master Plan submission. Additional engineering data and analysis will be submitted for Preliminary plan review as required.

If you have any further questions on this matter, please feel free to contact me at your earliest convenience.

Sincerely,
DiPrete Engineering Associates, Inc.

A handwritten signature in black ink that reads "Christopher Duhamel". The signature is written in a cursive, flowing style.

Christopher Duhamel, PE, PLS
Principal
cduhamel@diprete-eng.com



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Let's Build a Solid Foundation

Client Information:
 DiPrete Engineering
 Cranston, RI
 PM: Chris Duhamel
 Assigned By: Allison Drake
 Collected By: Client

Project Information:
AP 111 Lot 1, Gooding Ave
Bristol, RI
 DiPrete Project Number: 2536-001-B01
 Summary Page: 1 of 1
 Report Date: 12.23.21

LABORATORY TESTING DATA SHEET, Report No.: 7421-M-142

Source	Sample No.	Depth (Ft)	Laboratory No.	Identification Tests								Proctor / CBR / Permeability Tests							Laboratory Log and Soil Description	
				As Received Moisture Content %	LL %	PL %	Gravel %	Sand %	Fines %	Org. %	G _s	Dry unit wt. pcf	Test Moisture Content %	γ _d MAX (pcf) W _{opt} (%)	γ _d MAX (pcf) W _{opt} (%) (Corr.)	Target Test Setup as % of Proctor	CBR @ 0.1"	CBR @ 0.2"		Permeability cm/sec
				D2216	D4318		D6913			D2974	D854			D1557						
Test Pit	TP-4		21-S-4822				12.2	32.6	55.2											Brown sandy silt

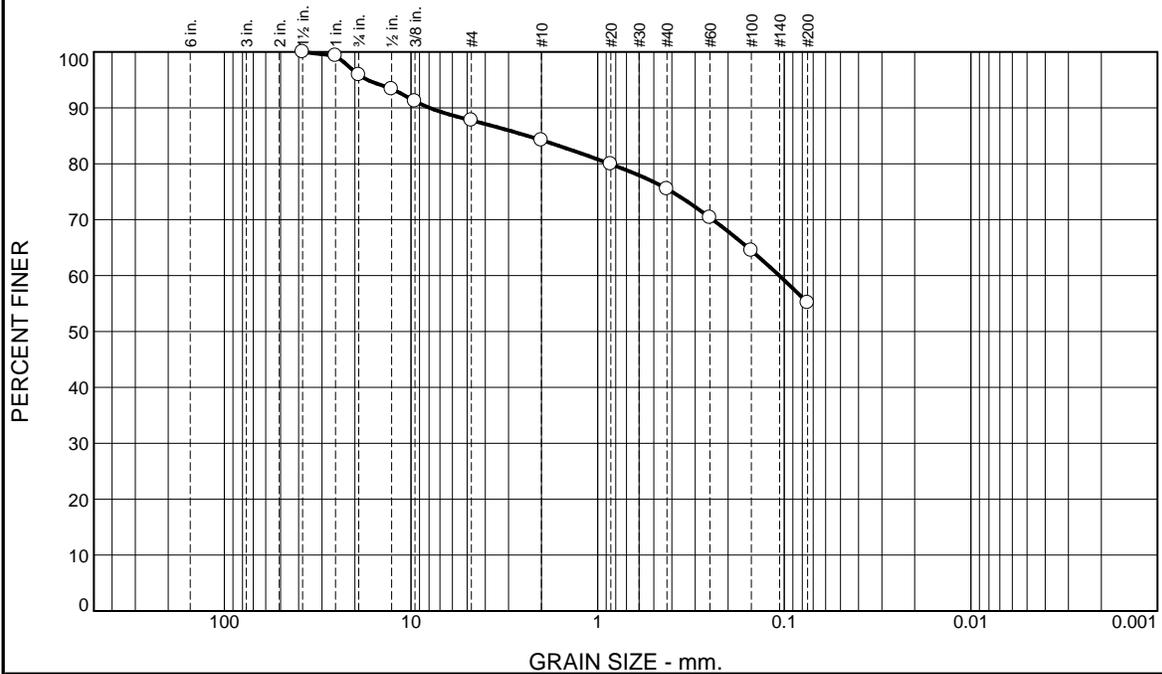
Date Received: 12.15.21

Reviewed By:

Date Reviewed: 12.23.21

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Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.1	8.1	3.6	8.7	20.3	55.2	

Test Results (D6913 & ASTM D 1140)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1.5"	100.0		
1"	99.3		
0.75"	95.9		
0.5"	93.4		
0.375"	91.2		
#4	87.8		
#10	84.2		
#20	79.9		
#40	75.5		
#60	70.4		
#100	64.5		
#200	55.2		

* (no specification provided)

Material Description

Brown sandy silt

Atterberg Limits (ASTM D 4318)

PL= NP LL= NV PI= NP

Classification

USCS (D 2487)= ML AASHTO (M 145)= A-4(0)

Coefficients

D₉₀= 7.9359 D₈₅= 2.3817 D₆₀= 0.1065
D₅₀= D₃₀= D₁₅=
D₁₀= C_u= C_c=

Remarks

Sample visually classified as non-plastic.

Date Received: 12.15.21 Date Tested: 12.18.21

Tested By: AV / SF

Checked By: Rebecca Roth

Title: Laboratory Supervisor

Source of Sample: TP-4
Sample Number: TP-4

Date Sampled:

Thielsch Engineering Inc. Cranston, RI	Client: Project: AP 111 Lot 1, Gooding Ave Bristol, RI Project No: 2536-001-B01 Soil Figure 21-S-4822
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Executive Summary

On behalf of the Client, we are submitting drainage calculations for the proposed development on Gooding Avenue in Bristol, Rhode Island. The site is located on Assessors' Plat 111 Lot 1. The site is currently undeveloped and exists today as almost entirely wooded. The client proposes to construct a new 80 room hotel building with associated parking and access driveways.

The post development stormwater will be treated for water quality using Best Management Practices (BMPs). The Site has been designed to meet the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM). The site is largely made up of wetland and perimeter wetland areas and almost entirely Hydrologic Group D soils. Groundwater tables in the development area range from 24" to 36" below existing grade. Based on this information, low infiltration rates have been used in modeling the proposed BMPs to treat the water quality storm event. Also, the eastern end of the underground infiltration system A (UIS-A) will be located entirely above grade to maintain groundwater separation. Wherever this occurs, sand material will be installed between the bottom of stone and native soil below loam layer.

To mitigate post development flows on site, a sand filter and an underground infiltration/detention system will be utilized. The detention system has been designed to control runoff for the 1 through 100 year storm events. The sand filter and underground infiltration system have been designed as water quality BMPs. These will remove 85% or more of TSS (total suspended solids) generated by the proposed parking areas and access roads.

This report details how the site will show no net increase in stormwater runoff from pre development to post development conditions, and how the proposed BMPs will provide water quality treatment for stormwater runoff. The proposed improvements will not increase the rate of stormwater runoff onto the State Highway.

Pre development Conditions versus Post Development Conditions for each watershed are summarized below:

Subwatershed (design point)	1-yr Peak Flow		10-yr Peak Flow		25-yr Peak Flow		100-yr Peak Flow	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
DP-1:	2.34	0.99	6.50	4.99	9.08	6.75	14.58	10.39

0.52 in/hr infiltration

All flows in cubic feet per second (cfs) 0.99 5.00 6.76 10.40 0.27 in/hr infiltration

Sub-watershed (design point)	1-yr Volume		10-yr Volume		25-yr Volume		100-yr Volume	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
DP-1:	0.228	0.131	0.605	0.421	0.845	0.639	1.371	1.182

0.52 in/hr infiltration

All flows in acre feet per second (af) 0.134 0.424 0.675 1.221 0.27 in/hr infiltration

100-year peak storm elevations	
UIS A Isolator Row (Node 104):	Elevation @ 0.52 in/hr = 75.90 Elevation @ 0.27 in/hr = 75.90
UIS A (Node 105):	Elevation @ 0.52 in/hr = 75.88 Elevation @ 0.27 in/hr = 75.88
UDS A (Node 106):	Elevation @ 0.52 in/hr = 72.84 Elevation @ 0.27 in/hr = 72.98