

Infiltration

Infiltration used by the Applicant and agreed by RIDEM to reduce the volume of flood flow

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- **Copy of infiltration statement by Applicant “Stormwater Management Report.”**
- **Copy of RIDEM Engineer Review 6/30/2023**

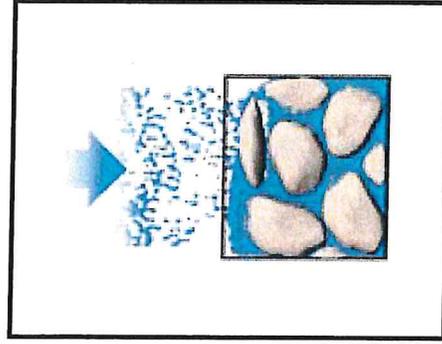
Proposed Gooding Avenue Hotel

Infiltration by Soil Texture

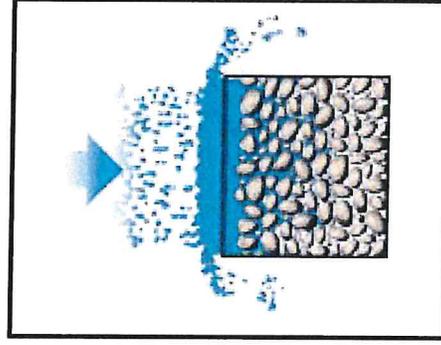


The applicant used a higher infiltration rate than the soil can absorb for Pittstown soils. Stissing soils is a wetland soil.

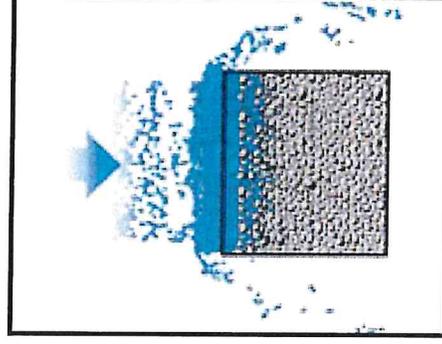
Infiltration Variations by Soil Texture



Sand



Silt



Clay

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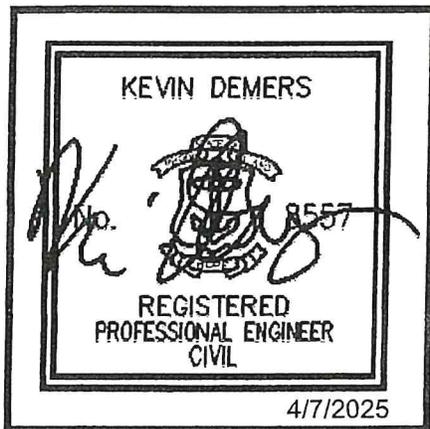
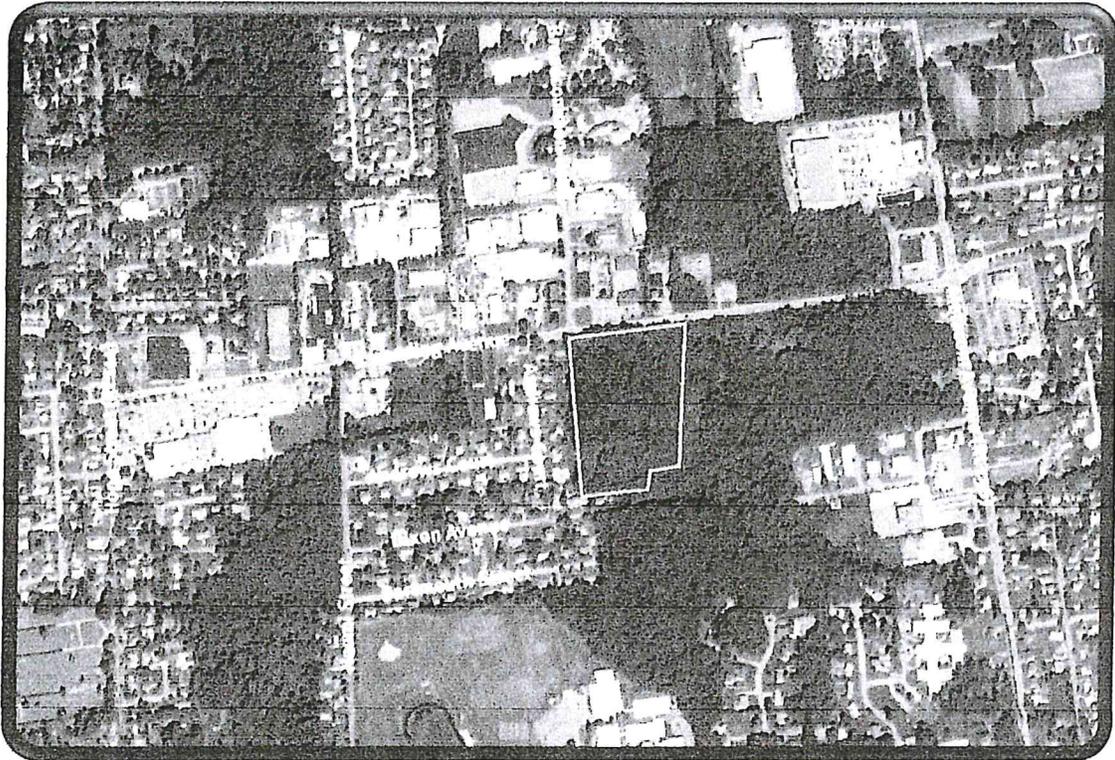
Applicant's In-Field
Soil Observation
classified soils as
Sandy Loam

Soil Samples & Tests have classified the soils as
Fine Sand, Silt, and Clay



DiPrete Engineering

Stormwater Management Report



Gooding Avenue Development

Located in Bristol, Rhode Island,

Applicant: Kendan, LLC.

1-19-2018

Revised: 3-27-2025

As shown in the tables above, no increase in stormwater runoff rate will occur following the proposed construction during the 1 through 100 year storm events.

* Also note that, due to concerns within the overall Silver Creek watershed and constraints therein, the applicant is also demonstrating that the proposed stormwater system will result in a decrease in runoff volume.

Watershed #1: (DP-1)

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

All flows in acre feet per second (af)

As shown in the tables above, no increase in stormwater runoff volume will occur following the proposed construction during the 1 through 100 year storm events.

3.6 Minimum Standard 6: Redevelopment and Infill Projects.

The site is not classified as a redevelopment or infill project.

3.7 Minimum Standard 7: Pollution Prevention

A Soil Erosion and Sediment Control Plan (SESC) for this development can be found under a separate document. See the Soil Erosion and Sediment Control Plan for the development prepared by DiPrete Engineering. The SESC contains information for construction pollution prevention. For post construction pollution prevention see the Operations and Maintenance (O&M) document prepared for this development by DiPrete Engineering.

3.8 Minimum Standard 8: Land Uses with High Potential Pollutant Loads (LUHPPLs)

The site is not considered LUHHPL.

3.9 Minimum Standard 9: Illicit Discharges

There are no proposed Illicit Discharges on site. The site will be serviced by public water and sewer.

3.10 Minimum Standard 10: Construction Activity Soil Erosion, Runoff and Sedimentation and Pollution Prevention Control Measure Requirements

See the SESC for this development prepared by DiPrete Engineering.

3.11 Minimum Standard 11: Stormwater Management System Operation and Maintenance

See the O&M for this development prepared by DiPrete Engineering.



FRESHWATER WETLANDS / STORMWATER ENGINEERING
CLEARANCE for NOTICE & FINAL REVIEW

Date: 6/30/2023

Reviewer: Nicholas A. Pisani, P.E.

Nicholas A. Pisani

Application Number:	FWW#:	22-0264
	WQC#:	22-114
	GWD/UIC#:	UIC--001650
	RIPDES#:	RIR101247
	OTHER:	_____

Applicant Name: KenDan, LLC

Project Name: Gooding Avenue Development

Plans and Analysis Reviewed: Plans and Reports received by DEM on 6/27/2022, with revised plans and analysis received on 5/25/2023.

Engineering Review conducted with Checklist rev. date: 2/20/2014.

Recommended Action: Adequate for Public Notice and Adequate for Approval with Condition.

Findings:

- 1) **Redevelopment Status:** The proposed project represents new development.
- 2) **Drainage and Water Quality Issues:** The submittal meets the pertinent requirements of the RIDEM Stormwater Management, Design and Installation Rule (250-RICR-150-10-8). Specifically:
 - **Re: Water Quality Standard:** The proposed design includes two (2) water quality treatment practices to provide water quality treatment for the proposed impervious area of proposed impervious areas proposed areas of rooftop and parking and access drives. These will consist of an infiltrating underground sand filter with proposed Isolator Row-TM pretreatment and an infiltrating surface sand filter with a sediment forebay as pretreatment. Together these will filter and infiltrate the water quality volume (one inch of runoff from contributing impervious areas) from the proposed project. The proposed design meets pertinent vertical separations to groundwater table and pertinent horizontal setbacks. Based on the above considerations the proposed design will meet the pertinent Water Quality Standard of the Stormwater Rules.
 - **Re: Recharge Standard:** The proposed design provides two (2) infiltrating sand filters. Together these infiltration practices will meet the pertinent Recharge Standard of the Stormwater Rules.
 - **Re: Channel Protection Standard:** The proposed project design includes an infiltrating subsurface sand filter, an infiltrating surface

sand filter, and two underground detention practices. Together these practices will provide a combination of infiltration and detention that will ensure that the discharge rate in the one-year storm event will be less than the allowable release rate required to ensure the 24-hour extended detention of the total runoff volume for the one-year storm event. Therefore, the submitted analysis shows that the proposed project design will meet Channel Protection Standard of the Stormwater Rules.

- **Re: Overbank Protection Standard:** The proposed design includes a proposed underground sand filter, a proposed surface sand filter, and two underground detention practices. The submitted analysis demonstrates that together these practices will serve to ensure that there will not be any increase in the peak runoff discharge rates in either the 10-year or the 100-year 24-hour Type III storm events. Therefor the proposed design meets the pertinent Overbank Protection Standard of the Stormwater Rules.
- The designer has addressed potential downstream flooding concerns by indicating that the submitted analysis shows that the total runoff volume of runoff to the receiving wetland will be decreased in the 1, 10 and 100-year 24-hour Type III storm events.

3) **Re: Soil Erosion and Sediment Control Issues:** The submittal includes an acceptable Soil Erosion and Sediment Control Plan.

4) **Floodplain and Floodway Issues:** The site of the proposed development is located inland of the FEMA-mapped 100-year floodplain.

Technical Justification(s): If the site plans for the proposed development include a BMP that does not fully comply with all the applicable design requirements of the RSDISM, then please note below:

- NA

Permit Conditions:

- 1) The long-term operation and maintenance plan shall be strictly followed. The long-term operation and maintenance plan shall be that entitled "Operation & Maintenance Plan, Gooding Avenue Development, Located in Bristol, Rhode Island; Applicant: Kendan, LLC", dated 1-23-2018, Revised 4-06-2021, dated received 6/27/2022, prepared by DiPrete Engineering.