State of New Jersey
DELAWARE AND RARITAN CANAL COMMISSION
PRALLSVILLE MILLS | 33 RISLER STREET | P.O. BOX 539
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www.nj.gov/dep/drcc

STAFF REPORT

DRCC #: 25-5794B
DATE: February 10, 2026
PROJECT NAME: 13 Prentice Lane -- Pool/Patio
Latest Submission Received: January 15, 2026

Applicant:
Vinet and Prachi Nada
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Engineer:
Laurence G. Murphy III, P.E.
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Project Location:

Road	Municipality	County	Block(s)	Lot(s)
13 Prentice Lane	Municipality of Princeton	Mercer	4502	5.07

Jurisdictional Determination:

Zone B	Major	Nongovernmental

Subject to Review for:

Drainage	Visual	Traffic	Stream Corridors
X			

Documents Received: Grading and Utility Plan (1 sheet), Plot Plan (1 sheet), Soil Erosion and Sediment Control Plan (1 sheet) dated September 5, 2024, last revised July 29, 2025; Stormwater Management Report dated July 2025, last revised October 2025; prepared by Greensite Engineering & Consulting, LLC.

THIS STAFF REPORT IS ISSUED AS A GUIDE TO APPLICANTS IN COMPLYING WITH DRCC REGULATIONS. IT IS NOT AN APPROVAL. NO CONSTRUCTION SHALL BEGIN UNTIL A CERTIFICATE OF APPROVAL HAS BEEN ISSUED.

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The application is complete and shall be presented to the Commission for their action with a staff recommendation of approval at the February 18, 2026, meeting based upon the following analysis:

Existing Conditions: The project site is a 65,340 square-foot (1.5 acre) lot located approximately 1.7 miles west of the Delaware and Raritan Canal in the Municipality of Princeton, Mercer County, and within Commission Review Zone B. The project site is bounded by single-family residential developments on comparatively large lots to the north, west, and south, and by a combination of woods, residences and municipal parkland to the east. In the existing condition, the site is undeveloped.

In 2021, the Commission approved a project for the subdivision and development of a 15.01-acre site (consisting of former Block 4502, Lot 5) into 8 new separate lots and for the subsequent construction of 7 new single-family residential dwellings (DRCC #21-5794). A lot associated with one of the seven single-family residential dwellings authorized pursuant to the 2021 project is the subject of this application.

Proposed Project: In addition to the single-family residential dwelling and paved driveway permitted pursuant to DRCC #21-5794, the applicant proposes additional site improvements, including a cabana, patio, and inground swimming pool.

The certificate of approval for project DRCC #21-5794, which created the project site lot, allowed for the creation of 8,258 square feet of impervious surface coverage on each of the new lots created by that residential subdivision project. Based upon the submitted application, the proposed impervious coverage area coverage onsite is estimated to be approximately 11,378 square feet in the proposed condition. The project would also result in a total area of land disturbance of approximately 33,300 square feet (0.76 acre).

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Stream Corridor: The project site is located within the Millstone River (Carnegie Lake) watershed area. A tributary to Harry's Brook and its floodplain are located approximately 600 feet to the west of the property. A Commission stream corridor was preserved as a condition of the certificate of approval for project DRCC #21-5794. Commission staff has determined that the project does not propose any intrusions within the preserved Commission stream corridor area. Therefore, the project is not subject to stream corridor impact review as pursuant to N.J.A.C. 7:45-9.1(a).

Stormwater Runoff Quantity: The project proposes an increase in the amount of impervious surface coverage, which would result in an associated increase in runoff as compared to the existing conditions if unmitigated. Under proposed development conditions, the approved drainage patterns for project DRCC #21-5794 would be maintained under the proposed project.

To mitigate for the increase in runoff generated from project DRCC #21-5794, stormwater best management practice (BMP) measures were proposed. Stormwater runoff from Lot 5.07 would be collected and managed by an onsite rain garden (small-scale bioretention basin) system and then discharged into the stormwater collection system, which serves the larger residential subdivision. The small scale-scale bioretention basin on the subject lot will maintain or reduce runoff rates for the 2022 residential subdivision. The 2,671 square-foot rain garden bioretention basin system will be located along the southeastern end of the lot property.

The proposed stormwater management BMP measure will intercept runoff from Lot 5.07 originally intended to discharge directly to Study Point B and manage the runoff onsite and release the stormwater into Study Point B at a controlled rate. The stormwater management measures at Study Point B have been designed so that for stormwater leaving the site, post-construction runoff hydrographs for the 2-, 10- and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events. In other words, the modified conditions peak development 2-, 10- and 100-year storm peak flow rates do not exceed, at any point in time, the approved peak development rates

The submitted calculations utilized the Natural Resource Conservation Service (NRCS) Technical Release No. 55 (TR-55) hydrologic methodology, NOAA Type C unit hydrograph rainfall distribution and current New Jersey 24-hour rainfall frequency data for Mercer County to compute peak runoff flow rates and volumes.

Based upon a review of the stormwater calculations submitted, the proposed stormwater management measures will provide enough peak flow attenuation to meet the specific runoff quantity standards at N.J.A.C. 7:45-8.6(a)1.

Water Quality: The Commission requires that all proposed full-depth pavement, including newly constructed and reconstructed parking and access drives that are being renewed, shall comply with water quality standards at N.J.A.C. 7:45-8.7. This includes reduction of the post-construction load of total suspended solids (TSS) in stormwater runoff generated from the water quality design storm by a rate of 80 percent (%) of the anticipated load from the developed site, expressed as an annual average.

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A total of 2,289 square feet of parking and access driveway pavement areas were approved pursuant to the certificate of approval for project DRCC #21-5794. Based upon the current application, a total of 2,150 square feet of motor vehicle surface is proposed. The original approval included a BMP measure, a constructed wetland, to provide 90% TSS removal for all of the water tributary to the constructed wetlands from Study Point B onsite and offsite, including vehicular surface area, roof area, patio area, and pervious areas.

As the constructed wetland already provides the required amount of water quality treatment for the site, no additional water quality treatment is required. However, the submitted stormwater report notes that the design proposes to treat for additional water quality by incorporating a BMP measure consisting of a rain garden bioretention basin system.

A bioretention system is a stormwater management facility used to address the stormwater quality and quantity impacts of land development. The system consists of a soil bed planted with vegetation; it can be underdrained or runoff can infiltrate into the subsoil. Pollutants are treated through the processes of settling, plus uptake and filtration by the vegetation. Pollutants are also treated within the soil bed through infiltration. The TSS removal rate is 80% to 90%; and dependent upon the depth of the soil bed and the type of vegetation selected.

Based upon soil testing conducted by Melick-Tully and Associates, PC, the proposed rain garden bioretention basin system would be underdrained and would not include any infiltration into the soil below as the testing revealed that the soils are classified as Hydrologic Soil Group (HSG) Type "D." The bed of the bioretention basin would be planted with site tolerant grasses. Based upon a review of the stormwater calculations submitted, the proposed stormwater quality measures have been designed in accordance with the requirements at N.J.A.C. 7:45-8.7.

Groundwater Recharge: The Commission regulations require that stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the site, or that any increase of stormwater runoff volume from pre-construction to post-construction for the 2-year storm is infiltrated. The applicant is proposing an increase in the amount of impervious area onsite.

The application for project DRCC #21-5794 provided information identifying the onsite soils as having characteristics of a HSG Type "D" soil, which do not provide adequate recharge. A subsurface soil and groundwater investigation, dated October 12, 2011, included seven test pits and verified that the existing soil conditions onsite soils were poorly suited for infiltration and exhibited very low permeability rates. The results concluded that the soil conditions encountered in the explorations, which included soil explorations in both reported soil mapping units, were representative of HSG Type "D" at the test pit locations. Therefore, Commission staff determines that the project is in compliance with the specific recharge standards at N.J.A.C. 7:45-8.5.

Non-Structural Methods: N.J.A.C. 7:45-8.4 directs that non-structural stormwater management strategies be incorporated into the stormwater design of a development project. To assist in determining that sufficient non-structural stormwater management strategies have been incorporated into the project site design "to the maximum extent

practicable," the NJDEP Nonstructural Strategies Point System (NSPS) spreadsheet has been completed for this project. The NSPS results indicate that the ratio of proposed to existing site points (102%) is greater than or equal to the required site points ratio (874%). Therefore, the project has proposed non-structural measures that are adequate, and the project is designed in compliance with N.J.A.C. 7:45-8.4.

Stormwater Management Maintenance Plan: A stormwater management operation and maintenance plan document has been prepared and submitted for the BMP elements proposed for the project. The plan includes maintenance details for the proposed stormwater BMP measure (rain garden bioretention basin). The submitted plan has been prepared in accordance with the requirements at N.J.A.C. 7:45-8.8

Staff Recommendation: Staff recommends approval.

Sincerely,

John Hutchison
Executive Director

c. Mercer County Planning Board
Municipality of Princeton Planning Board

Please refer to the Commission project number (DRCC #) when making a submission, a resubmission, or transmitting project correspondence or documents.