

August 21, 2026

Michael Greco, Board Secretary
Zoning Board of Adjustment
Borough of Demarest
118 Serpentine Road
Demarest, NJ 07627

15 Brook Way
Block 145, Lot 13
Borough of Demarest, Bergen County, NJ
Zoning Board Application Engineering Review
Colliers Engineering & Design Project No. DEZ0063

Dear Mr. Greco,

Pursuant to your request, our office has reviewed the following plans and other documents filed by the Applicant in support of a Variance Application. The Applicant is proposing to construct a new spa, covered patio, fireplace, drainage improvements and other related improvements.

- a) Site plans consisting of two (2) sheets, prepared and signed by Michael J. Hubschman, P.E., P.P., and Robert J. Mueller, P.L.S., of Hubschman Engineering, dated June 1, 2026, last revised June 15, 2026;
- b) Architectural Plans consisting of three (3) sheets, prepared by Stephanie DeCarlo, A.I.A., dated June 16, 2026;
- c) Variance Application for the subject property and attachments; signed and dated July 13, 2026;
- d) Zoning Denial letter dated June 25, 2026; and
- e) Completeness letter dated August 18, 2026.

The Property Owner/Applicant is:

Jonathan Gal and Stephanie Barnhart
15 Brook Way
Demarest, NJ 07627

The Applicant/Owner shall notify the Borough of Demarest Zoning Board of Adjustment of any changes to the above information.

Engineering Review

I. Project Description & Location

According to the site plans, the site is currently occupied by a single-family dwelling with associated driveways, walkways, and other related improvements. The Applicant is proposing to construct a new spa, covered patio, fireplace, drainage improvements and other related improvements.

The property is a rectangular-shaped, undersized parcel consisting of 12,500 SF located between Meadow Street and County Road. The property is located in the residence C Zone according to the Borough Zoning Map.

The property is located in Zone X (area determined to be outside the 0.2% annual chance floodplain) as shown on the Flood Insurance Rate Map (FIRM) for the Borough of Demarest dated August 2019.

II. Zoning Requirements & List of Variances / Waivers Requested

A. Bulk Zoning Requirements:

Zone: R-C

Use: Single Family Residential

Description	Required	Existing	Proposed	Complies
Lot area**	15,000 sf.	12,500 sf.	12,500 sf.	☐ Yes ☒ No
Lot Frontage	100 ft.	100 ft.	75.0 ft.	☒ Yes ☐ No
Lot depth	100 ft.	125.00 ft.	125.00 ft.	☒ Yes ☐ No
Front yard setback	35 ft.	35.00 ft.	35.00 ft.	☒ Yes ☐ No
Side yard (west)*	15 ft.	15 ft.	12.75 ft.	☐ Yes ☒ No
Rear yard*	30 ft.	44.50 ft.	28.74 ft.	☐ Yes ☒ No
Side yard (spa)	15 ft.	N/A.	15.97 ft.	☒ Yes ☐ No
Rear yard (spa)	10 ft.	N/A.	17.99 ft.	☒ Yes ☐ No
Maximum No of families	1	1	1	☒ Yes ☐ No
Maximum Building Height	30 ft.	28.58 ft	28.61 ft.	☒ Yes ☐ No
Max Building Coverage*	20 %	20.56%	25.17 %	☐ Yes ☒ No
Max. Impervious Coverage*	30 %	31.77%	34.86 %	☐ Yes ☒ No
Max. Residential & Parking Coverage**	25 %	25.76%	25.76 %	☐ Yes ☒ No
Livable Floor Area	30%	28.10%	28.10%	☒ Yes ☐ No

N/A = not applicable

* = variance required

** = pre-existing non-conformance

B. The Following Variances Appear to be Required:

1. Lot Area – There is a pre-existing nonconformance for lot area of 12,500 SF, where a minimum of 15,000 is required.
2. Max Residential and Parking Coverage – There is a pre-existing nonconformance for the residential and parking coverage of 25.76%, where the maximum of 25%.
3. Side yard (west) – The Applicant is proposing a side yard setback of 12.75 ft to the proposed covered patio and fireplace, where a minimum of 15 ft is permitted.

A variance is required for this condition.

4. Rear yard – The Applicant is proposing a rear yard setback of 28.75 ft to the proposed covered patio, where a minimum of 30 ft is permitted.

A variance is required for this condition.

5. Max Building Coverage – There is a pre-existing nonconformance for the building coverage of 20.56%, where a maximum of 20% is permitted. The Applicant proposes an increase in building coverage of 576 SF related to the proposed covered patio, resulting in a total building coverage of 3,146 SF (25.17%), which further deviates from the ordinance requirement and intensifies the nonconformity.

A variance is required for this condition.

6. Max improved lot Coverage – There is a pre-existing nonconformance for the improved lot coverage of 31.77%, where a maximum of 30% is permitted. The Applicant proposes an increased improved lot coverage of 34.86%, which further deviates from the ordinance requirement and intensifies the nonconformity.

A variance is required for this condition.

7. We note that the 576 SF covered patio was not included in the residential and parking coverage total. If the covered patio were to be included, there would be 3,796 SF (30.37%) residential and parking coverage where a maximum of 25% is permitted in this zone.
8. The ordinance requires pools to be offset a minimum of 10 feet from buildings. If the spa/hot tub is considered a pool, it is less than 10 feet from the covered patio which is part of the building.

III. Engineering Review

- A. The Applicant is proposing to increase the improved lot coverage from 3,971 SF (31.7%) to 4,357 SF (34.86%) with a net increase in coverage of 386 SF. We note that proposed features include 576 SF for the covered patio and 204 SF for the proposed spa and surrounding patio/steps which results in a total of 780 SF of proposed features. The Applicant should clarify what existing site features are being removed as it is unclear based on the site plans.
- B. The Applicant should clarify the nature of the easement running parallel to the rear property boundary.
- C. The zoning notes on the site plan indicate the existing building height is 28.58 feet and the proposed building height is 28.61. The Applicant should provide testimony and explanation of this change.
- D. There is a playset shown on the site plan, which may be considered improved coverage. We note it is currently not included in any of the coverage totals. We suggest the Applicant supply photographs of the playset to assist the board in determining if this should be included in the coverage totals.
- E. The existing fence depicted on the plan appears to stray beyond the property boundaries. The Applicant should provide additional information and/or testimony on the fence and gate. The fence and gate must be pool code compliant.
- F. The Applicant is proposing two (2) cultech recharger 150XLHD chambers to collect and store stormwater runoff from what appears to be the permitter drains around the proposed patio area. We offer the following comments related to the drainage design:
 - 1. The Applicant should provide drainage calculations demonstrating the collection and storage of the 2-inch runoff from the proposed roof area for review by our office.
 - 2. The Applicant should provide testimony indicating where the seepage pit is proposed to overflow.
 - 3. A soil test shall be provided prior to the installation of the proposed seepage pits. Soil test shall include information regarding the location of the seasonal high-water table (SHWT) and percolation rate of the soil.
 - 4. The Applicant proposed an at-grade manhole cover for future maintenance. We take no exception.
 - 5. The Borough Engineer shall be notified to inspect the seepage pits prior to backfilling.
- G. The Applicant has depicted existing and proposed contours on the property. We offer the following comments related to grading:
 - 1. Under existing conditions, the site drains from south to north. The highest point of the property is in the southern corner where elevations are approximately 50 and the lowest point of the property is in the northern corner, where elevations are approximately 49.

2. Under proposed conditions, the high and low points are generally maintained, and drainage patterns should not be substantially impacted. Proposed grading appears to be minimal.
- H. We note the drainage improvements encroach into the rear 10' wide easement. The Applicant should not construct any improvements in the easement.
- I. The rear cultech chambers appear to be near an 18" diameter maple tree. The Applicant should relocate the chambers to be further away from the maple tree and easement.
- J. The Applicant should provide testimony regarding any additional utility improvements needed for the proposed fireplace and outdoor kitchen.
- K. The Applicant has should provide cut and fill calculations regarding any anticipated soil movement to construct the proposed improvements.
- L. The Applicant should be aware that any soil movement quantity in excess of 250 CY will require Mayor and Council approval pursuant to Chapter 147 of Borough Ordinance.
- M. Should the Board act favorably upon this application, the Applicant is hereby made aware that drainage issues may arise during or after the proposed construction. It will be the Applicant's responsibility to remedy any drainage issues caused by the proposed improvements. In addition, water runoff directed to neighboring properties is prohibited. If runoff water does enter neighboring properties as a result of the proposed improvements, the Applicant will be responsible to remedy the issue at no cost to the Borough.

Should you have any questions, you may contact me at (201) 775-1283.

Sincerely,

Colliers Engineering & Design



Nick Chelius, P.E.
Zoning Board Engineer

CC: Board Members (via Zoning Board Secretary)
Darlene Green, Board Planner (darlene.green@collierseng.com)
Jonathan Gal and Stephanie Barnhart, Applicant (galjs2@gmail.com)
Matthew Capizzi, Esq. Applicant's Attorney