

May 2, 2025

Michael Greco
Joint Planning Board
Borough of Demarest
118 Serpentine Road
Demarest, NJ 07627

17 Duck Pond Road
Block 120.01, Lot 3.01
Borough of Demarest, Bergen County, NJ
Joint Planning Board Application - Engineering Review
Colliers Engineering & Design Project No. DEZ0043

Dear Mr. Greco:

Pursuant to your request, our office has reviewed the following plans and other documents filed by the Applicant in support of an appeal to the Zoning Officer Denial letter referenced below. The Applicant is proposing to construct a new dwelling with associated driveway, walkways, patio, retaining walls, pool, sport court, and other related improvements.

- a) Site Plans consisting of one (1) sheet, prepared and signed by Michael J. Hubschman, PE, PP, and Robert J Mueller, PLS, of Hubschman Engineering, dated June 17, 2024, last revised April 15, 2025;
- b) Joint Planning Board Application for the subject property and related attachments;
- c) Zoning Department Denial of Application letter, dated April 16, 2025;
- d) Notice of appeal, prepared and signed by Matthew G. Capizzi, Esq., dated April 16, 2025.

The Property Owner/Applicant is:

Zmanny LLC / Tomer Edry
220 East 65th Street, Apt 21L
New York, NY 10065

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

Engineering Review

I. Project Description & Location

According to the site plans, the site was previously an empty lot. The Applicant is proposing to construct a new single-family dwelling, driveway, walkways, patio, retaining walls, sport court, pool, drainage improvements and other related improvements. The Board should note that a soil movement permit was already issued for the construction of the dwelling only and construction is currently underway. The remainder of the proposed site improvements are still subject to review and approval and any necessary state approval(s).

The property is an irregular shaped parcel consisting of 107,360.23 SF. The northern portion of the property fronts Duck Pond Road and the southwestern portion of the property fronts Academy Lane. As such, it appears the property has two front yard areas. The property is located in the residence A Zone according to the Borough Zoning Map.

The property is located in an unshaded 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-A

Use: Single Family Residential

Description	Required	Existing	Proposed	Complies
Lot area	40,000 sf.	107,360 sf.	107,360 sf.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Lot Frontage (Duck Pond Rd)	200 ft.	201.83 ft.	201.83 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Lot Frontage (Academy Lane)	200 ft.	282.38 ft.	282.38 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Lot depth	200 ft.	322.10 ft.	322.10 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Front yard setback (Duck Pond Rd – Avg)	54.10 ft.	169.66 ft.	169.66 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Front yard setback (Academy Lane)	50 ft.	135.31 ft.	135.31 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Side yard setback	25 ft.		75.15 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Rear yard setback	50 ft.		50.19 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Rear Yard Width	200 ft.	372.61 ft.	372.61 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Maximum Building Height	33 ft.		33 ft.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Max Building Coverage	15 %		7.09 %	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Max. Improved Coverage	30 %		23.66 %	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Max. Residential & Parking Coverage	25 %		13.18 %	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Livable Floor Area	22.5%		8.74 %	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

N/A = not applicable

* = variance required

** = pre-existing non-conformance

We note the following:

- The division of the side and rear yards is not clearly defined in the ordinance and is subject to the interpretation of the Board. Borough Ordinance 175-27 defines yards as the following:
 - Yard, Front: A yard extending the full width of the lot and situated between the street line and the front line of the building projected to the side lines of the lot. The depth of the "front yard" shall be between the front line of the building and the street line.
 - Yard, Rear: A yard extending the full width of the lot and situated between the rear line of the building and the rear line of the lot.
 - Yard, Side: A yard situated between the building and the side line of the lot and extending from the front yard to the rear yard.
- The interpretation of the location of the side, rear, and front yards will impact if certain variances are applicable to this application. For example, if the portion of the yard fronting Academy Lane is designated as a front yard, portions of the proposed sport court would be located in a front yard area.

B. The Following Variances Appear to be Required:

1. Accessory Structure Location (Sport Court) – There is a 55 ft x 110 ft (6,050 SF) sport court in the side and/or front yard areas. Per Borough Ordinance, accessory structures are only permitted in the rear yard area.

A variance may be required for this condition.

2. Accessory Structure Location (Pool and Patio) – Due to the frontage along Academy Lane, the pool and portions of the patio are located in what could be considered a front yard. Accessory structures are only permitted in the rear yard area.

A variance may be required for condition.

3. Accessory Structure Location (Retaining Wall) – The Applicant is proposing what appears to be a 5-foot-high retaining wall enclosing the cobblestone parking area in the front of the property. Based on the definitions in Borough Ordinance, retaining walls two feet in height or greater are considered accessory structures and are only permitted in the rear yard area.

A variance appears to be required for this condition.

C. General Discussion

1. We note the following relevant sections and definitions provided in Demarest Ordinance related to this application:

- 175-19(B) - All districts. Accessory buildings, uses and structures and improvements shall be permitted only in a rear yard, subject to the following regulations, which shall apply to the entire rear yard, not just the required minimum depth:
 - 175-19(B)6 – “An accessory use, building or structure in any residence district on a lot between two parallel streets shall comply with the locational regulations and restrictions for an accessory building or improvement as applicable to each abutting street, including all front, rear and side yard requirements for each street, notwithstanding upon which street the principal building fronts.”
 - 175-19(B)7 – “Swimming pools. No swimming pools shall be located within any front yard and no swimming pool shall be located in any side yard.”
- 175-24 Fences
 - 175-24(C) – “No fence shall be erected in a front yard of any lot in a residential district unless the fence is less than 50% solid and is not more than four feet in height.”
 - Note that the Board should consider whether portions of the fence enclosing the proposed sport court are located in a front yard. If so, the fence would exceed the maximum height of four feet.
- 175-27 Definitions
 - Retaining Wall – “A structure forming a change of grade with or without footing that is two feet or greater in height from the lowest adjacent grade elevation.”
 - Accessory Use (Building, Structure) 1c Examples: “Swimming pool (aboveground or in-ground), playground equipment, arbor, pergola, deck, antennae, patio, retaining wall, etc.”

III. Engineering Review

A. Coverages and applicability to Major Development Stormwater Regulations

1. The plans indicate a total improved coverage of 25,403 SF (23.66%). Existing coverages are assumed to be 0. As such, the net increase in coverage proposed is 25,403 SF. Per N.J.A.C. 7:8, the definition of a “Major Development” is a project which includes either a disturbance area larger than 1 Acre (43,560 SF) or ¼ Acre (10,890 SF) or more of increase in impervious area. Based on N.J.A.C. 7:8 this development would be considered a “Major Development” and subject to additional stormwater management regulations. The total limit of disturbance is noted as 1.52 acres and the increase in impervious coverage is 25,403 SF.

2. The Applicant has provided building height calculations for both the principal structure (the dwelling) and accessory building (the storage shed).
 - The principal structure is calculated at the maximum allowable height of 33 feet based on the measurement from average natural grade to the mid-roof height of the dwelling. Measurement to the midpoint of the roof is described in footnote D of the Limiting Schedule, District. We note that architectural plans have not been provided as part of this application.
 - The accessory building height is calculated at the maximum allowable height of 12 feet based on the measurement from average natural grade to the mid-roof height of the shed.

B. Grading & Drainage

1. The Applicant is proposing a raingarden and fourteen (14) seepage pits to manage stormwater on site. We note that a drainage report has not been provided for review. Should the Board act favorably upon this application, CED will require additional information in order to conduct a comprehensive review of the stormwater design. We recommend requiring the applicant to perform soil testing in the location of the proposed drainage improvements prior to any submission of stormwater design calculations to confirm the design is feasible.
2. The Applicant is proposing minor regrading as part of this project. Natural grades slope downward toward the western side of the property. The proposed grading includes several retaining walls and appear to maintain existing drainage patterns. Should the Board act favorably upon this application, detailed cut and fill calculations should be provided with the submission of any soil movement application.
3. The plans indicate that the overflow for the drainage system will discharge to existing drainage infrastructure within Academy Lane. The outlet pipe crosses an existing maintenance easement along Academy Lane.
4. Please note an in-depth drainage review has not been performed at this time. Should the Board approve this application, CED will perform an in-depth drainage review during the soil moving permit review process.

C. Fencing

1. As per 175-24(N) All pools are required to be enclosed by a fence no less than 48" in height and pool code compliant self-latching and self-closing gates shall be provided.
2. A detail has been provided of the proposed fence on sheet 4021.1-3 of the site plans. The detail shows a 45" & 69" high aluminum split rail fence.
3. The proposed sport court area is enclosed by a 6-foot-high fence. It is unclear what type of fence is proposed in this location. The Applicant should provide testimony.

4. The Applicant should provide testimony on the locations of the different fence heights. Note that fence in a front yard area is permitted to be a maximum of four feet in height and must be 50% open.
- D. Environmental Restrictions
1. The plans depict a 150-foot setback from the top of bank of Cresskill Brook along the northern frontage of the property (near Duck Pond Road). Improvements proposed within this area include portions of the driveway.
 2. The plans depict a 300-foot riparian zone setback from the top of bank of Cresskill Brook along the northern portion of the property. Improvements proposed within this area include the driveway, minor regrading, covered driveway area, seepage pits, and the front portion of the dwelling.
 3. The Applicant should provide testimony as to the nature of permits anticipated and any other environmental restrictions on-site.
- E. Tree Removal and Replacement
1. Sheet 4021.1-4 of the site plans indicate a total of 33 trees to be removed. A replacement schedule has been provided indicated 34 trees to be replaced. We defer to the shade tree commission for final comment on the adequacy of the replacement trees proposed.
 2. The Applicant should provide testimony as to the locations of the proposed tree removal as it has not been provided on the site plans. Testimony should be provided on whether trees within the 150' top of bank buffer and the 300' riparian buffer will be impacted.
- F. Lighting
1. The Applicant has provided a lighting plan on sheet 4021.1-7 of the site plans.
 2. Proposed lighting includes four (4) twenty-foot-high light poles with 300-Watt LED luminaires.
 3. Photometrics for the proposed lighting has been provided indicating a maximum lighting intensity of 26.3 footcandles in the sport court area. We note there is some spillover lighting beyond the property boundaries in the Academy Lane area. Lighting intensities beyond the property lines are as high as 1.8 footcandles. The Board should consider whether spillover lighting is acceptable in these locations.
- G. Should the Board be inclined to grant the requested variance(s), the Applicant shall be aware that prior to issuance of a building permit, a soil moving permit application shall be provided to the Borough in accordance with Chapter 147 (§147-1) of the Borough Ordinance. Earthwork calculations will need to be provided for the proposed work.

- H. 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 situation at no cost to the Borough.
- I. If in the event the Board grants this variance the Borough Engineer shall be notified to inspect and approve all drainage measures, including seepage pits with at least seventy-two (72) hours notice. The Applicant shall not backfill the drainage appurtenances without such approval.

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

Sincerely,

Colliers Engineering & Design



Nick Chelius, P.E., C.M.E.
Joint Land Use Board Engineer

cc: Board Members (via Board Secretary)
Tim Woods, Chairman (timwoods12@gmail.com)
Michael Greco, Board Secretary (mgreco@demarestnj.gov)
Michael J Hubschman, Applicant's Engineer (mike@hubschmanengineering.com)
Matthew G Capizzi, Applicant's Attorney (matthew@capizzilaw.com)