

April 1, 2024

Dorothy Hayden, Chairwoman  
Zoning Board of Adjustment  
Borough of Demarest  
118 Serpentine Road  
Demarest, NJ 07627

74 Pine Terrace  
Block 84.05, Lot 7  
Borough of Demarest, Bergen County, NJ  
Zoning Board Application Engineering Review #2  
Colliers Engineering & Design Project No. DEZ0039

Dear Ms. Hayden:

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 dwelling with associated driveway, walkways, patio, retaining walls, and other related improvements.

- a) Site Plans consisting of three (3) sheets, prepared and signed Robert L. Costa, PE, of Costa Engineering Corporation, dated August 10, 2023; **Last revised March 22, 2024;**
- b) Drainage Calculations consisting of three (3) pages, prepared and signed Robert L. Costa, PE, of Costa Engineering Corporation, dated August 18, 2023;
- c) Letter from Bergen County Soil Conservation District, signed by Raymond J. Cywinski and dated September 26, 2023, certifying the soil erosion & sediment control plan.
- d) Architectural Plans consisting of six (6) sheets, prepared and signed by Daniel D'Agostino, AIA, of Plan Architecture, dated January 12, 2024;
- e) Variance Application for the subject property; signed and dated February 1, 2024.
- f) Rider to Application with written description of relief request, prior resolution (File No. 817-21 approved 1/18/23), and Zoning officer denial letter (dated 11/7/23 & signed by Kevin Burnette);
- g) Topographic survey consisting of one (1) sheet, prepared and signed by Andrew A. Schmidt, of Schmidt Surveying, dated May 2, 2023;
- h) **Plan entitled "Front Setback Study" consisting of one (1) sheet, prepared and signed by Andrew A. Schmidt, PLS, dated March 7, 2024;**

The Property Owner/Applicant is:

Chad & Rebecca Cutler  
9 Avenue at Port Imperial, Unit 1003  
West New York, NJ 07093

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

The property is currently occupied by a two-story single-family dwelling with associated deck, patio, asphalt driveway, walkways, and a shed. All existing improvements are to be demolished in order to construct a new two-story dwelling with attached 3 car garage, retaining walls, rear terrace, walkways, drainage improvements, and other related improvements.

The site is located at 74 Pine Terrace, on Block 84.05, Lot 7, and is contained within the R-BB Zoning District. The subject property is a mostly rectangular shaped parcel consisting of 23,949.6 SF.

The property is encumbered by a 15-foot-wide drainage easement that runs along the rear property boundary. The Board should also be aware of the presence of freshwater wetlands immediately to the north of the property although the wetland boundary is not within the boundaries of this parcel.

It should be noted that this neighborhood is part of an ongoing drainage improvement project. Currently, there is work being planned to install a new storm sewer system along Pine Terrace and there is also a hydro-raking project planned over the next few months to clean out the stream to the northwest. There is a possibility that additional future work will take place involving the 24" Reinforced Concrete Pipe located within the drainage easement on this property.

## II. Zoning Requirements & List of Variances / Waivers Requested

### A. Bulk Zoning Requirements:

Zone: R-BB

Use: Single Family Residential

Description	Required	Existing	Proposed	Complies
**Lot area	30,000 sf.	23,950 sf.	23,950 sf.	<input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No
Lot Frontage (Lot width)	150 ft.	150 ft.	150 ft.	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Lot depth	150 ft.	172.35 ft.	172.35 ft.	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
**Rear Yard Width	150 ft.	129.93 ft	129.93 ft.	<input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No
Front yard setback	50 ft.	51.7 ft.	50.8 ft.	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Side yard setback	25 ft.	26.3 ft.	25.8 ft.	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Rear yard setback	50 ft.	61.0 ft.	52.8 ft.	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
<b>Side yard setback (Accessory)</b>	25 ft.		<b>N/A</b>	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
<b>Rear yard setback (Accessory)</b>	10 ft.		<b>N/A</b>	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Maximum Building Height	30 ft.		29.42 ft.	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Max Building Coverage	15 %		14.99 %	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Max. Improved Coverage	30 %		28.33 %	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Max. Residential & Parking Coverage	25 %		22.68 %	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No
Floor Area	22.5%		22.41%	<input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No

N/A = not applicable

\* = variance required

\*\* = pre-existing non-conformance

### B. Variances Requested:

1. Minimum Lot Area – There currently exists a lot area of 23,950 SF where a minimum of 30,000 SF is required.

This is a pre-existing non-conforming condition.

2. Minimum Rear Yard Width – There currently exists a rear yard width of 129.93 ft where a minimum of 150 ft is required.

This is a pre-existing non-conforming condition.

3. Side Yard Setback (Accessory) – The Applicant is proposing keystone retaining walls along the western side property boundary with a setback of 0 ft where a minimum of 25 ft is required.

A variance is required for this condition.

It shall be noted that the wall bordering the proposed driveway is set against the property boundary but there is also an additional section of wall along the western side yard enclosing the rear yard area. Dimensions to this wall have not been provided. The Applicant should be prepared to provide this information at the hearing. It appears that this section of wall is also encroaching into the required side yard setback.

**The Applicant has revised the proposed retaining wall height and layout on the plan. The wall is now a maximum of 1.9 feet high and as such, is not subject to accessory structure setback requirements.**

4. Rear Yard Setback (Accessory) – The Applicant is proposing a keystone retaining wall along the rear property boundary with a setback of 0 ft where a minimum of 10 ft is required.

A variance is required for this condition.

**The Applicant has revised the proposed retaining wall height and layout on the plan. The wall is now a maximum of 1.9 feet high and as such, is not subject to accessory structure setback requirements.**

#### C. General Discussion

1. As per Note B on the Limiting Schedule, an alternate front setback is required conforming to the average setback on the street that the lot fronts 300 feet in either direction. The Applicant should be prepared to provide the setback information to neighboring properties at the hearing to demonstrate compliance.

**The Applicant has submitted an average setback study for review. The following setbacks exist for neighboring properties on the north side of Pine Terrace:**

**Lot 9.01 – 69.9 feet**

**Lot 8 – 60.1 feet**

**Lot 6 – 52.3 feet**

**Average Setback – 60.76 feet**

**The following setbacks exist for neighboring properties on the south side of Pine Terrace:**

**Lot 13 – 56.5 feet**

**Lot 12 – 50.7 feet**

**Lot 11 – 50.5 feet**

**Lot 10 – 42.6 feet**

**Average Setback – 50.07 feet**

**It appears that the Applicant may require an additional variance for front yard setback based on the average setback of the dwellings located on the north side of the street.**

### III. Engineering Review

- A. There is a ~~3 ft high (max)~~ **1.9 ft high (max)** keystone retaining wall adjacent to the driveway along the western side property boundary. We offer the following comments related to this wall:

1. The Applicant should clarify the need for the retaining wall adjacent to the driveway. Grade changes in this location appear to be minimal and there is not a wall currently existing. It appears the driveway could be reconfigured to eliminate the need for this wall.
  2. It should be noted that if the wall is reduced to less than 2 ft in total height, it would no longer be considered an accessory structure and no longer require a variance.  
**The Applicant has submitted revised plans reducing the wall height below 2 ft.**
  3. The Applicant should provide testimony as to how this wall could be constructed without encroaching onto the neighboring property.
- B. There is a ~~4 ft high (max)~~ **1.9 ft high (max)** wall in the rear yard area along the western side property boundary. We offer the following comments related to this wall:
1. A dimension from the property boundary has not been provided. The Applicant should provide testimony to clarify.
  2. The Applicant appears to be raising the rear yard a maximum of approximately 4.5 ft in the vicinity of this wall. The Applicant should provide testimony as to how this may affect drainage patterns.  
**The Applicant has revised the proposed height and layout of the wall. Grades still appear to be raised by approximately 4.5 feet in the vicinity of the revised wall. The Applicant shall provide testimony as to how this may affect drainage patterns in the area.**
- ~~C. There is a 4 ft high (max) keystone retaining wall along the rear yard property boundary. We offer the following comments related to this wall:~~
- ~~1. The proposed wall is located immediately up against the property boundary. The Applicant should provide testimony as to why the wall cannot be placed in a conforming location.~~
  - ~~2. The proposed wall is located within a 15 ft wide drainage easement. Permanent structures should not be located within this easement. The Applicant should relocate the wall outside of the drainage easement.~~
- These comments are no longer applicable. The Applicant has removed this segment of wall from the plans.**
- D. Grading & Drainage
1. The Applicant is proposing two (2) precast concrete drywells in the front yard area to collect and store stormwater runoff from what appears to be the roof area of the dwelling and the driveway area. There appears to be sufficient capacity to store this drainage area.
  2. Stormwater in the rear yard area appears to be directed toward the northwest corner of the property where there is a separation between two retaining walls and a sharp drop in grade.  
**Based on the revised plans, proposed runoff patterns appear to have stormwater from the rear yard area being directed in both the north and northeast directions (away from the property). Grades are fairly steep in these areas with approximate slopes of 3H:1V.**
  3. The Applicant is proposing to level off the rear yard area. Natural grades slope downward toward the northwestern corner of the property. The proposed changes utilize retaining walls

to level off this area. The grade is being raised a maximum of about 4.5 feet in the northwesterly corner.

- E. 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.
- F. 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.
- G. 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.  
Zoning Board Engineer

cc: Board Members (via Zoning Board Chairwoman)  
Michael Greco, Zoning Board Secretary ([mgreco@demarestnj.gov](mailto:mgreco@demarestnj.gov))  
Robert L. Costa, Applicant's Engineer (via mail)  
Daniel D'Agostino, Applicant's Architect (via email)  
Carmine R. Alampi, Applicant's Attorney (via email)  
Chad Cutler, Applicant ([chad@cutlerpallets.com](mailto:chad@cutlerpallets.com))