Memo

To: Mrs. Ashley Neale
Verona Board of Adjustment (BoA) Secretary

From: Plan Review Committee of the Verona Environmental Commission

c: Verona Environmental Commission Chair

Date: July 28, 2021

Re: **Case # 2021-18**
93 Lynwood Road [Block 1403, Lot 40]
Verona, New Jersey

Zone: R-50B (Medium High Density Single Family)

The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 93 Lynwood Road in Verona submitted by Jeff Egarian on behalf of the Gugliemi family, which we received on July 21, 2021. We understand that the Applicant is seeking to obtain multiple variances including exceeding total improved lot coverage and the rear yard setback (for pools), cabana size, and aggregate lot coverage by accessory structures in conjunction with the installation of an inground pool in a steep slope area. The comments below are provided for the Board's consideration:

1) We understand that the total allowable improved lot coverage is 40% and that the Applicant seeks to increase that total to 42.3%. We also understand that the additional impervious coverage sought exceeds 400 sq. ft. which would require green infrastructural stormwater mitigation on site, according to §455-17. The application also proposes to install a 500 Gallon seepage pit on the site. The VEC PRC recommends:

    - The addition of green infrastructure on site to mitigate the addition of over 400 ft² of new impervious coverage. Green Infrastructure may include the addition of bioretention basins (rain gardens), trees, and or grass swales. The Applicant may also consider the use of permeable paver systems.

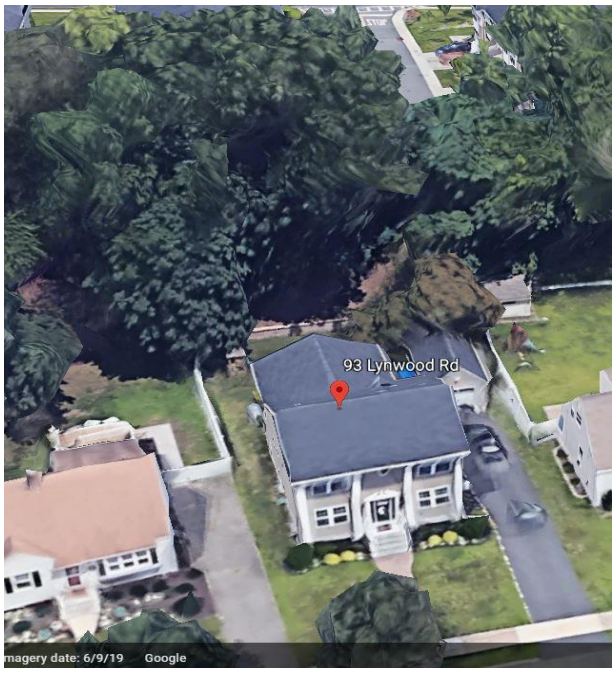
    - For the Applicant's professional to provide calculations in accordance with our Ordinance §455-17 to verify seepage pit sizing and that testimony be provided on how the runoff will reach the seepage pit at its chosen location on the site.

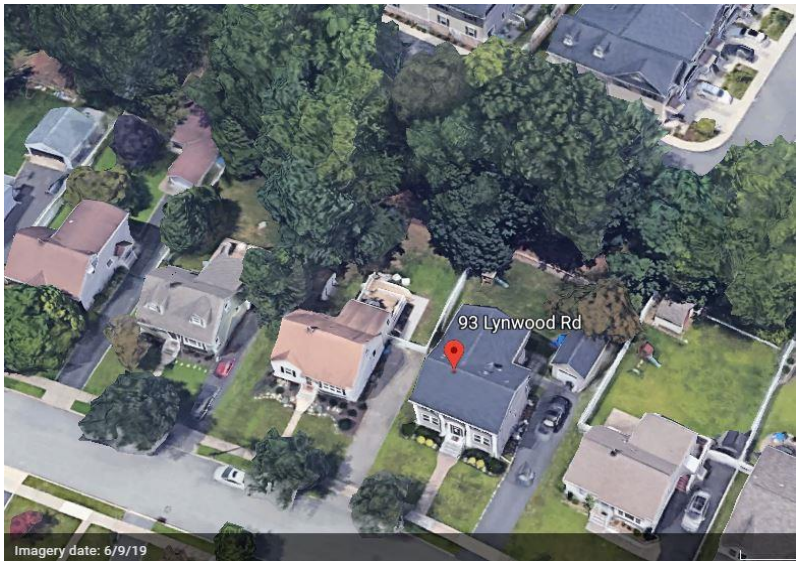
2) We note that the area proposed has been identified as a steep slope area (24% slope). Although homes in the R-50B zone are exempt from the Township's Steep Slope Ordinance for improvements, they are not exempt from tree removal in those same sensitive areas (§493-22D) unless they are found to pose a threat or danger by a licensed tree expert. If this was the case, and the Applicant was granted a permit for removal of trees, we note that the Ordinance only grants permit for the removal of two trees per calendar year (§493-19 B). We also note that the photographs supplied by the Applicant reveal multiple tree stumps, indicating the removal of vast amounts of large trees from this steep slope area. §493-19 F(1) distinctly states that clear-cutting of trees is not permitted on any property. Google Earth satellite photos of the site also show a remarkable change from 6/9/2019 to current photos captured in 2021. As such, the VEC PRC recommends that the Applicant:

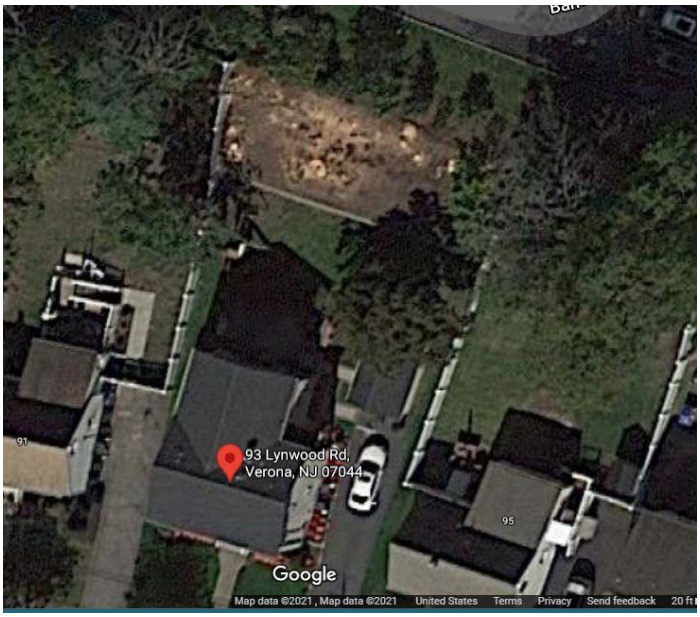
    - Supply testimony regarding how many trees were removed, when the removals occurred and whether the Applicant received the proper permits for all trees that were removed.

- The VEC PRC recommends that the appropriate tree replacement according to §493-26 occur on this site to mitigate any unpermitted removals.

3) The following images were retrieved from Google Maps Satellite. The top two are dated 6/9/2019. They depict an expansive tree canopy in the Applicant's yard. The bottom picture was retrieved from Google Maps Satellite in 2021. It depicts the rear of the yard after what appears to be the removal of all trees. Please refer to the Applicant's supplied photographs to see the remaining tree stumps on the site.







4) In addition, please see attached the Low Impact Planning and Construction Checklist. This suggested list was compiled by the VEC based on best available practices.

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Low Impact Checklist: Construction

This suggested list has been compiled by the Verona Environmental Commission based on best available practices. This is not a requirement of the uniform construction code. It is intended to be beneficial to all residents considering renovations and new construction. The purposes of this list are to 1) assist those planning construction projects to do so in a manner that causes the least disruption to the environment; 2) establish a healthy setting for those occupying the new or renovated space; and 3) reduce waste and save resources. Implementing environmentally friendly practices can be economical when considered at pre-construction stages and are often beneficial in the long term.

General Construction

- Recycle and/or salvage non-hazardous construction and demolition debris
- Use renewable building material and products
- Incorporate renewable energy (i.e. geothermal, solar)
- Use local products (i.e. local and sustainable woods)
- Use local construction products and companies
- Conserve energy and reduce electricity use as much as possible

Grounds & Landscaping

- Create a sedimentation control plan to prevent sediment from moving off site.
- Use native plantings (Native plans are adapted to thrive in local conditions)
- Use captured rainwater or recycled grey water for irrigation
- Provide bicycle parking to help reduce overcrowded streets and CO2 emissions.

Storm Water Management

- Avoid runoff to other properties by installing an underground cistern or rain garden.

This will keep water on your own property and out of the sewer system.

- Limit impervious surfaces – use an open grid pavement system (at least 50% pervious)
- Promote infiltration that captures and treats storm water runoff from rainfall
- Use a water retention system (i.e. rain barrel) to collect rainwater for non-potable uses

Lighting

- Choose LED lights (the most environmentally efficient option)
- Purchase renewable electricity, either directly from your power supplier, from an independent clean power generator, or through renewable energy certificates.
- Use skylights or solo tubes for natural daytime lighting. Use sensor controls in commercial

or industrial settings and solar lighting outdoors.

Foundation & Basement

- Use environmentally friendly foundation sealants (rather than black tar)
- Prevent sump pump water from flowing into the sewer system

Roofing

- Use light color roofing materials to limit heat absorption created by darker roofs
- Use roofing material with a solar reflectance index (SRI) equal to or greater than 78 for low roofs and 29 for steep-sloped roofs
- Install tile or metal roofs
- Consider installing a vegetated roof (green roof) or a blue roof

Heating & Cooling

- Use 2 x 6 studs instead of 2 x 4 to increase amount of insulation
- Install programmable thermostats that adjust temperatures throughout the day
- Use occupant sensing and/or remote-control thermostat technologies
- Install heat pumps to transfer energy heat and cold Use high-efficiency boilers/furnaces
- Use attic fans to regulate heating and cooling

Windows

- Choose ultraviolet window protection to protect against sun damage
- Install triple pane windows or windows with Argon or Krypton gas between panes

Products

- Choose products with low VOCs (VOCs are found in adhesives, interior paints, cabinets, etc.)
- Avoid products that contain hazardous chemicals such as formaldehyde and cyanide
- Choose ENERGY STAR® appliances
- Install dual flush toilets Install low flow shower heads
- Avoid garbage disposals and make provisions for composting

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Low Impact Checklist: Planning

This suggested list has been compiled by the Verona Environmental Commission based on best available practices. This list is intended to assist individuals involved in planning and building projects in Verona Township towards submitting low impact plans. The goal of a low impact plan is not only to increase cost savings and add value to your project but to make environmentally responsible choices and eliminate project delays in early stages of the planning process.

General Construction & Design

- Provide occupants with connection to outdoor space through increased natural light and views
- Orient buildings facing southwest to maximize potential solar installation
- Use orientation and design to maximize passive solar heat/cooling
- Use proper planning to prevent damage to surrounding properties and public spaces
- Minimize disturbance to soils and vegetation
- Recycle and/or salvage non-hazardous construction and demolition debris
- Use renewable building materials and products
- Use local and sustainable woods
- Incorporate renewable energy and reduce energy use

Grounds & Landscaping

- Create a sedimentation control plan Limit altering steep slope areas
- Encourage landscaping that requires limited moving, trimming, and watering
- Create landscapes that limit the need for lawn chemicals and maintenance
- Position evergreens to the north to shield wind/ Position deciduous trees to the south to cool buildings
- Use native plantings (Native plans are adapted to thrive in local conditions)
- Place parking spaces in shaded areas
- Place bicycle parking racks in secure areas near entrances
- Use paving materials with an SRI value >29. This will reflect, not absorb solar heat.

Storm Water Management

- Limit impervious surfaces – use an open grid pavement system (at least 50% pervious)
- Reduce impervious cover to promote infiltration that captures and treats storm water
- Use a water retention system (i.e. rain barrel) to collect rainwater or recycled gray water

for non-potable uses

Foundation & Basement

- Use alternative practices (rather than black tar) for foundation sealants
- Encourage aeration and ventilation
- Draw sunlight into basement areas through access windows

Roofing

- Use light color roofing materials to limit heat absorbed by dark colored roofs
- Use roofing material with a solar reflectance index (SRI) equal to or greater than 78 for low roofs and 29 for steep sloped roofs
- Consider Tile or Metal roofs
- Construct roofs that can support solar installations

Lighting

- Use solar lighting outdoors
- Use skylights or solo tubes for natural daytime lighting
- Use motion sensor lighting where applicable
- Choose energy-efficient light bulbs

Products

- Avoid products that contain hazardous chemicals such as formaldehyde and cyanide
- Use local products (i.e. local and sustainable woods)
- Use local construction equipment and companies when possible

For more information and resources please see:

The Native Plant Society of New Jersey - http:// www.npsnj.org
The Association of New Jersey Environmental Commissions - http://www.anjec.org
US Green Building Council NJ Chapter - http://usgbc.org
New Jersey Green Building Manual - http://greenmanual.rutgers.edu
The New Jersey Department of Transportation Master Plan - http://njbikepedplan.com
Rutgers Center for Green Building - http://greenbuilding.rutgers.edu
The Verona Environmental Commission - http://www.veronaec.org