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 1, 2021, Revised August 3, 2021
Re:	**Case # 2021-16** 34 Linn Drive [Block 2301, Lot 20; Block 2302, Lot 1 and Block 2304, Lot 11] Verona, New Jersey
Zone:	A-1 (Low Rise Multi Family)

The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 34 Linn Drive in Verona submitted by Mr. Richard Schkolnick on behalf of Cam Gar at Verona, LLC., which we received on June 9, 2021. We also reviewed a letter with enclosures addressed to the BoA from Mr. Michael Roth of Roth Engineering, LLC, which we received on July 20, 2021. We understand that the Applicant is seeking to obtain multiple variances for the construction of a 2-story, 2-unit apartment building as well as accessory patios, firepits, an outdoor fireplace and patio areas. The revised comments below are provided for the Board's consideration:

1) We note that the Applicant cites the size of the entire 5+ acre lot when determining total new, improved lot coverage percentages, but does not take the entire 5+ acre site into consideration when determining tree replacement. Additionally, the Applicant proposes to create more than 400 ft^2 of new impervious surface, which would require stormwater mitigation according to the Minor Development section (§455-17) of Verona's Stormwater Management Chapter in its Municipal Code. The Code refers to 400 ft^2 or more of new impervious surface as a threshold value for developments considered to be a Minor Development, it does not refer to a net increase value.

2) The Applicant's contention that because these slopes are man made does not relieve them of the requirements of §150-23, Steep Slopes, of Verona's Municipal Code since disturbance on slopes, manmade or otherwise, may result in accelerated erosion processes from excessive stormwater runoff, which is the stated purpose of that section.

3) We note that Article II of Chapter 493, Tree Protection, Removal, and Replacement, of Verona's Municipal Code is not being upheld by the Applicant. The Applicant seeks to remove 34 trees of varying sizes.

    a. Verona's Code requires a Licensed Tree Expert (LTE) to determine the health and condition of any trees to be removed. According to the registration list found here: https://njtreeexperts.org/index.php/directory-search, neither Mr. Aaron Pastore, nor Bowman Consulting were found to hold the appropriate licensing. Mr. Pastore is a Landscape Architect, which

does not meet the requirements of the Code. If he is an LTE, he should provide the Township with his LTE number.

b. The letter from Bowman submitted 7/19/2021 references damaged arborvitae trees whereas, the plans submitted by Roth Engineering on 4/28/21 (Sheet 3 of 10) references damaged cedar trees. The species of trees should be clarified, as many of the other "cedar trees" on Sheet 3 are not listed as damaged. According to the Code, the trees that are marked as damaged on Sheet 3 of the Preliminary and Final Site Plans submitted, should be assessed by an LTE.

c. Additionally, the letter from Bowman infers that the Verona Shade Tree Commission is the determinative body on tree removals and replacements (p. 5 of 8, Comment #36), but this is not the case. The Shade Tree Commission may offer comments and recommendations on applications, as does the VEC, but the jurisdiction is held by the Verona Planning Board when an Applicant seeks to remove two or more trees in one calendar year. The BoA may also hear such applications and may give approval if the trees are located where the buildings or roadways are planned (§493-20D). The Applicant should review our Code, found here: https://ecode360.com/32019257 (specifically, Article II: Tree Protection, Removal and Replacement).

d. As per the Code, an Applicant may only remove two trees of a 6-inch or greater caliper or for evergreen trees, over 10 feet tall, per calendar year. The Applicant seeks to remove 34 Mature Trees. The Applicant is also required to map and label the trees for removal and an LTE is required to sign off on each tree's condition.

e. The VEC is not empowered to enumerate the total amount of trees to be replaced (as referenced in the Roth letter on p. 7 of 8; Comment #7) as 22 trees, we merely referenced that 22 trees was the minimum amount required by Code if the trees slated for removal matched the Applicant's listed sizes and conditions (yet to be determined by an LTE). According to the replanting schedule, trees removed with a 6- to 16-inch DPM require 1 tree replacement each. This replanting schedule would require 34 trees to be replaced on the property.

f. We note, shrubs do not qualify as tree replacements.

4) We note that the Linn Drive is adjacent to the Hilltop Reservation, home to a population of White Tail deer. Deer especially like Arborvitae; they will feed regularly on Dwarf Japanese Holly, Rhododendron Catawbiense, and Hydrangea Arborescens. They are known to browse on Swamp White Oaks and Liriope Muscari. Please refer to Rutgers deer resistance listings: https://njaes.rutgers.edu/deer-resistant-plants. We recommend that the Applicant replace the quantity of trees called for by Chapter 493 and that they select species that are more deer resistant. We also recommend that all trees be surrounded by deer fencing until they are well established.

5) The VEC PRC would like to know if the chimney emissions from the outdoor fireplace and or fire pit will flow back towards the proposed apartment building. What is the proposed height of the chimney on the fireplace?

6) The VEC PRC notes that the HVAC units are proposed for the front yard. We opine that the noise emitted from the HVAC units, located adjacent to the accessory recreational areas, will create a noise nuisance. We would recommend that the Applicant provide testimony on this issue.

7) 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.

[STD/JP/JD]
VEC_2021-08-03 Comments 34 Linn Drive v1.docx

Verona Environmental Commission

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

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 Kryton 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

Verona Environmental Commission

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