

Memo

То:	Mrs. Kelly Lawrence Verona Board of Adjustment (BoA) Administrator
From:	Plan Review Committee of the Verona Environmental Commission
C:	Verona Environmental Commission Chair
Date:	January 14, 2021
Re:	Case # 2020-09 1 Rawding Court [Block 1306, Lot 16.05] 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 1 Rawding Court in in Verona submitted by Mr. Jonathan Guldin, which we received on January 13, 2021. We understand that the Applicant is seeking to obtain a variance for the construction of a 20-foot x 30-foot in-ground pool of unknown depth and adjacent concrete paver patio that would exist too close to the front property line and exceed total improved lot coverage. The comments below are provided for the Board's consideration:

- We note that the Applicant seeks to remove a line of hedges on the east and north side of the yard. The hedges exist at the top of a retaining wall and help with infiltration and runoff mitigation for the lower level adjacent property. The Applicant indicates that up to 33 evergreen trees of various sizes will be planted for screening purposes. We recommend the selection of infiltrative native plantings, sedge grasses and or native trees to aid with runoff mitigation.
- 2) Existing and Proposed Improved Lot Coverage is listed as 35.54% and 43.77% on the application, respectively. Reviewing recent aerial imagery for impervious surface not shown on the existing conditions plan and scaling off the drawing, we calculated an Existing Improved Lot Coverage of 37.2% based on an Existing "Improved Area" of 4,974.8 ft² (please see attached annotated pdf). Furthermore, we calculated a Proposed Improved Lot Coverage of 46.8% based on a Proposed "Improved Area" of 6,263.0 ft². We understand that the maximum Improved Lot Coverage for the R-50B Zone is 40%.
- 3) We recommend that the Applicant reduce the existing impervious areas of the site and/or reduce the size of the proposed pool and patio to conform to the maximum allowable lot coverage of 40% for the R-50B Zone.
- 4) The Applicant proposes to install a perforated pipe that ties into the existing 15-inch RCP storm drain the runs north-south within the utility easement that exists on the property. This perforated pipe will short-circuit the natural infiltration of stormwater to the groundwater table and increase the load on the existing storm drain. We request that the Applicant's engineer testify that the stormwater runoff from additional impervious surfaces that drain to the inlet located in the existing patio along with the flow from the

proposed perforated pipe tie-in will not adversely impact the downstream hydraulics of the storm drain system.

- 5) We recommend that the Applicant's engineer take the appropriate steps to properly protect and maintain the integrity of the existing 15-inch RCP storm drain during excavation for the floor of the pool.
- 6) 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/FD] VEC_2021-01-13 Comments 1 Rawding Court.docx





(DB20170 PG48046) N/F ACQUE, MICHAEL & SCHUSTER, KELLY

DRAINAGE PIPE TRENCH

N.T.S.

FIELD MAP REFERENCE:

KNOWN AND DESIGNATED AS LOT 16.05 IN BLOCK 68 AS SET FORTH ON A CERTAIN MAP ENTITLED, FINAL PLAT "DURRELL ESTATES" BLOCK 68, LOTS 16 & 17 DURRELL ST. SITUATED IN THE TOWNSHIP OF VERONA, COUNTY OF ESSEX, N.J., WHICH MAP WAS FILED IN THE ESSEX COUNTY CLERK'S OFFICE ON JULY 29, 2013 AS MAP NO. 4619.

SURVEY REFERENCE: EXISTING CONDITIONS SHOWN HEREON PER "BOUNDARY AND TOPOGRAPHIC SURVEY, 1 RAWDING COURT, BLOCK 68, LOT 16.05, TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY", PREPARED BY JOSEPH D. PHIL, PLS, OF SUBURBAN CONSULTING ENGINEERS, INC, DATED JULY 28, 2020. VERTICAL DATUM FOR THE PROJECT IS NAVD-88.

URBAN CONSULTING ENGINEERS, INC. COA NO.: 24GA28037500 21MH00004200	1 RAWDING COURT POOL INSTALLATION BLOCK 1306 LOT 16.05	PROJECT NUMBER: SCE-11861.011 SCALE: 1" = 10'
- Civil Engineers - Municipal Engineers - - Landscape Architects - lanners - Environmentalists - Land Surveyors -	TOWNSHIP OF VERONA, COUNTY OF ESSEA, STATE OF NEW JERSET	
06, Suite 101 2430 Highway 34, Bldg. A Suite 1R 5 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776 ONIONY ENIVLEONIMENT	SITE LAYOUT AND GRADING PLAN	REVISION

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)

 \Box 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

 \Box 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

 \Box Create landscapes that limit the need for lawn chemicals and maintenance

 \Box 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

 \Box 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)

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