

## Memo

**To:** Board of Adjustment Chairperson McGinley and Secretary Kester  
Verona Board of Adjustment (BoA)

**From:** Plan Review Committee of the Verona Environmental Commission

**c:** Verona Environmental Commission Chair

**Date:** November 10, 2024

**Re:** **Case # 2024-16**  
110 Linden Avenue [Block 901, Lot 29]  
Verona, New Jersey

**Zone:** R-50 (High Density Single Family)

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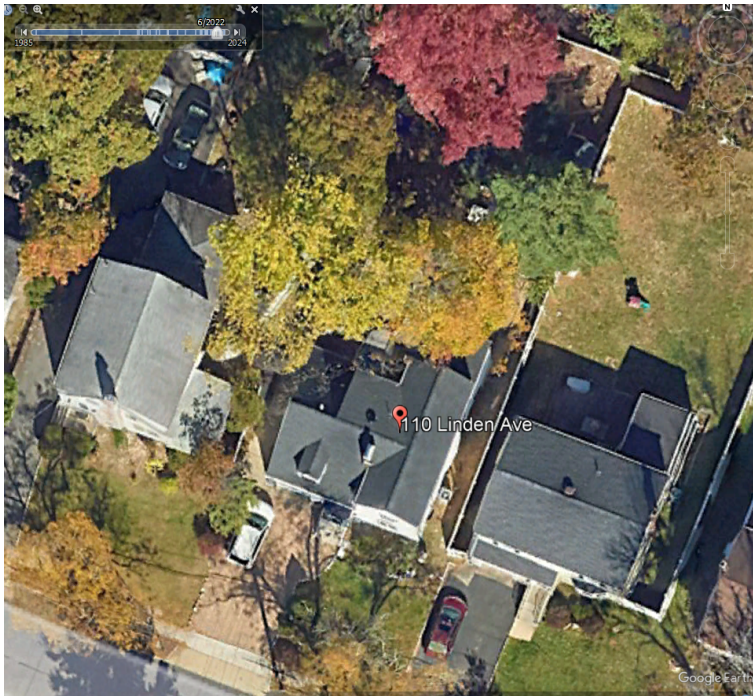
The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 110 Linden Avenue in Verona submitted Ms. Rosemary Stone Dougherty, Esq. on behalf of Ms. Queiroz which we received on October 18, 2024. We understand that the Applicant is seeking to obtain variances for the installation of a side yard walkway and a rear yard patio, installed without permits, for exceeding total allowable lot coverage and without the required installation of stormwater mitigation. The comments below are provided for the Board's consideration:

- 1) The VEC PRC notes that the total improved lot coverage on the property, prior to the installation of the paver patio, was presented as 39% in the amended application. The installed property alterations result in a total improved lot coverage of 53.6% as presented in the accompanying survey, in excess of allowable coverage by nearly 14%.
- 2) Pre-Existing and Proposed Improved Lot Coverage is listed as 39% and 52.9% on the application, respectively. Scaling off the drawing, we calculated a Pre-Existing Improved Lot Coverage of 30.7% based on an Existing "Improved Area" of 2,133.6 ft<sup>2</sup> (please see attached annotated pdf). Furthermore, we calculated a Proposed Improved Lot Coverage of 53.9% based on a Proposed "Improved Area" of 3,752.2 ft<sup>2</sup>. We understand that the maximum Improved Lot Coverage for the R-50 Zone is 40%.
- 3) Additionally, it appears that the Applicant may have removed trees on the property as Google Earth shows that trees existed on the property through 2023 (unknown how many without a survey or additional photos). The Applicant should address the tree removals and also provide mitigation plantings in accordance with [§493, Article II](#), which became effective in 2019, and [Recommended Plant Selection List](#) included in Verona's Zoning Code, §150.
- 4) The VEC PRC understands that the Applicant has exceeded the 400 ft<sup>2</sup> of new impervious surface, which requires stormwater management mitigation using green infrastructure as per [§150-25.7 Stormwater Management Requirements for Minor Development](#). The PRC recommends that the Applicant submit planning documents, as required [§150-25.10 Requirements for a site development stormwater plan – minor development](#), and that all documents are reviewed for compliance by the Township's Engi

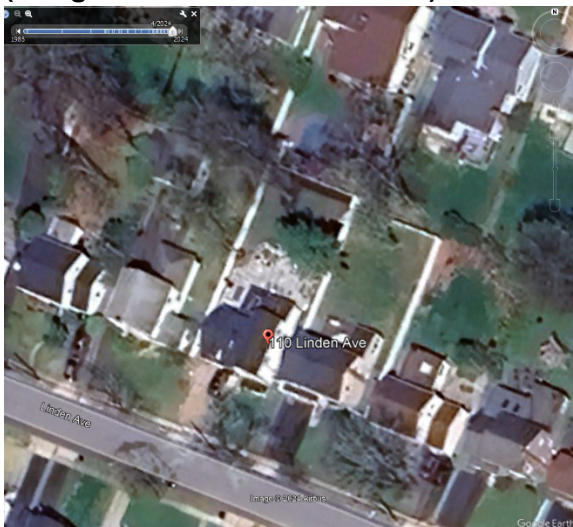
neers prior to providing testimony. The Applicant has not supplied any documentation for these zoning requirements.

- 5) In light of the likely tree removal without mitigation and the addition of impervious surface with no stormwater mitigation, it may be difficult to install the mitigation requirements without the removal of a portion of the paving system in the rear yard.
- 6) In addition to the above comments, please see attached the Low Impact Planning and Construction Checklist. This suggested list was compiled by the VEC based on best available practices.

[JP/STD/WS]VEC\_2024-10-30 Comments 110 Linden Avenue.docx



**(Google Earth Photo: June 2022)**



**(Google Earth Photo: April 2024)**



**(Google Earth Photo: Current)**



Areas (scaled off plan)  
 Lot size 6,959.3 ft<sup>2</sup>

Pre-Existing "Improved Area" = 1,360.9 (I) + 720.8 (II) + 47.6 (III) + 4.3 (IV) = 2,133.6 ft<sup>2</sup> [assumed pre-existing]

Pre-Existing Improved Lot Coverage = 2,133.6 ÷ 6,959.3 = 30.7% [based on application pre-existing should be 39%]

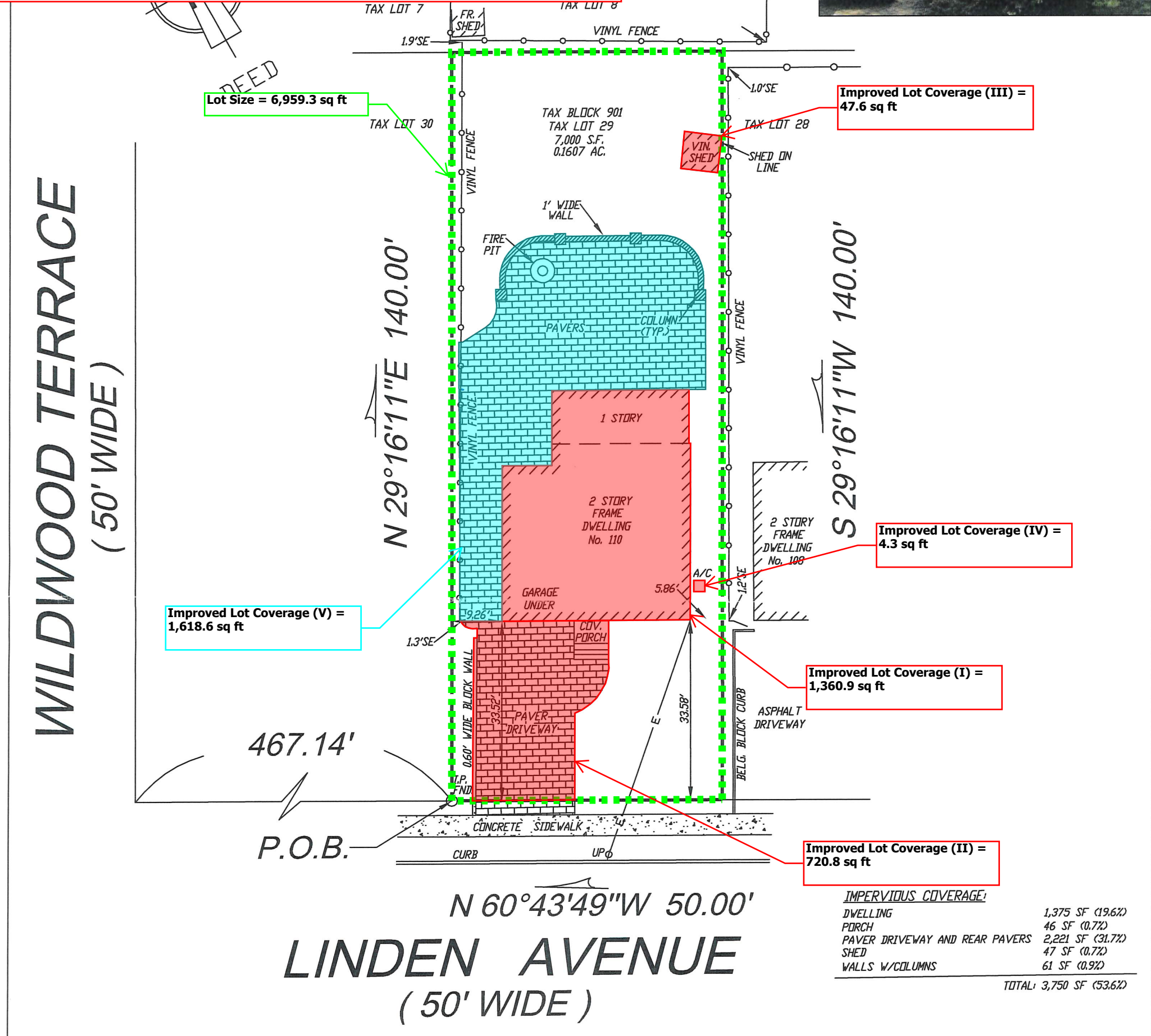
Proposed "Improved Area" = 2,133.6 + 1,618.6 (V) = 3,752.2 ft<sup>2</sup>

Proposed Improved Lot Coverage = 3,752.2 ÷ 6,959.3 = 53.9%

Definitions:  
 IMPROVED LOT COVERAGE = The percentage of lot area which is improved with principal and accessory buildings and structures, including all impervious surface areas such as buildings, driveways, parking lots and garages and other man-made improvements, and swimming pools.

PERVIOUS INTERLOCKING PAVERS = Any pavers with a void area of 20% or less will be considered completely impervious for the purposes of the Stormwater Management rules. In pavers with greater than 20% void area, the applicant may count only the non-void area as impervious, provided the void areas are not grouted or made impermeable in any way.

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Improved Lot Coverage (III) = 47.6 sq ft

Improved Lot Coverage (IV) = 4.3 sq ft

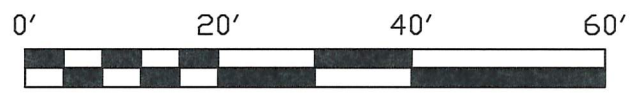
Improved Lot Coverage (V) = 1,618.6 sq ft

Improved Lot Coverage (I) = 1,360.9 sq ft

Improved Lot Coverage (II) = 720.8 sq ft

**IMPERVIOUS COVERAGE:**

DWELLING	1,375 SF (19.6%)
PORCH	46 SF (0.7%)
PAVER DRIVEWAY AND REAR PAVERS	2,221 SF (31.7%)
SHED	47 SF (0.7%)
WALLS W/COLUMNS	61 SF (0.9%)
<b>TOTAL</b>	<b>3,750 SF (53.6%)</b>



GRAPHIC SCALE  
 1" = 20'

WAIVER OF SETTING CORNER MARKERS OBTAINED FROM ULTIMATE USER PURSUANT TO THE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS REGULATION. N.J.A.C. 13:40-5.1(d)

LOCATION SURVEY OF PROPERTY OF  
 CRISTINA QUEIROZ  
 BOROUGH OF VERONA, ESSEX COUNTY, N.J.

CERTIFIED TO:  
 CRISTINA QUEIROZ

**MANNO SURVEYING, INC.**  
 PROFESSIONAL LAND SURVEYORS & PLANNERS  
 543 POST AVE. LYNDHURST, N.J. 07071  
 TEL. (201) 438-7454 FAX (201) 460-0132  
 EMAIL: VLEV@EL42@gmail.com

SCALE: 1" = 20'	DATE: 07/07/2023
TAX MAP LOT: 29	TAX MAP BLOCK: 901
FILE MAP LOT:	FILE MAP BLOCK:

MAP REFERENCE:  
 BEING KNOWN AND DESIGNATED AS LOT 29 IN BLOCK 901 AS SHOWN ON THE TAX MAP IN THE BOROUGH OF VERONA, ESSEX COUNTY, STATE OF NEW JERSEY.

*V. Manno*  
 Vincent Manno, Professional Land Surveyor  
 Lic. No. 24GS03538400  
 Anthony J. Manno, Founder 1936-2011

Job No. 23-273 Title Company No. NA

CERTIFICATE OF AUTHORIZATION NO. 24GA28191300

## 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 plants 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 plants 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>