

Memo

To: Board of Adjustment Chairperson McGinley and Zoning Official Miesche

Verona Board of Adjustment (BoA)

From: Plan Review Committee of the Verona Environmental Commission

c: Verona Environmental Commission Chair

Date: June 24, 2024

Re: Case # 2024-09

8 Randolph Place [Block 606, Lot 2]

Verona, New Jersey

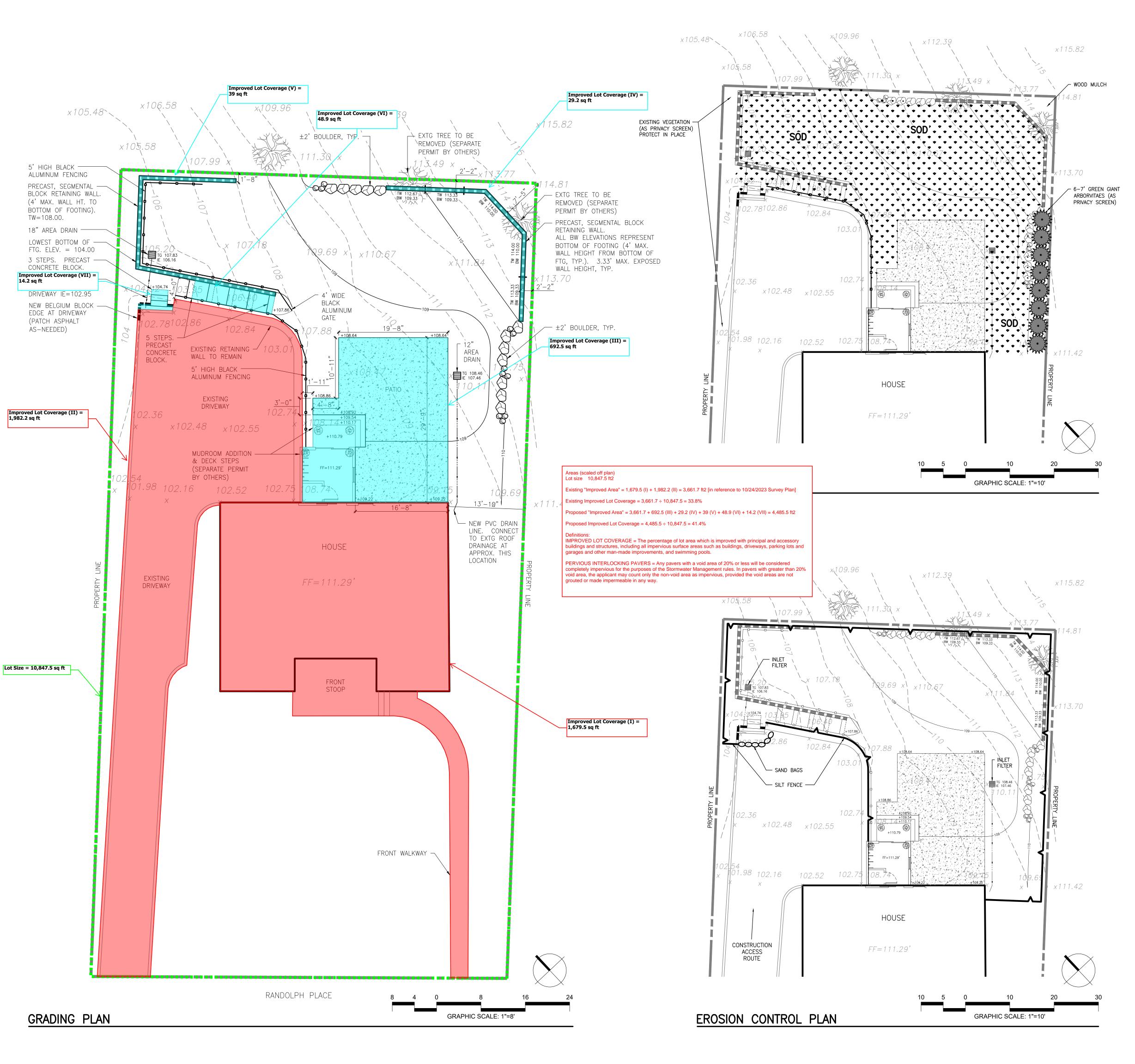
Zone: R-70 (Low Density Single Family)

The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 8 Randolph Place in Verona submitted by Mr. Michael Sarcone, which we received on May 28, 2024. We understand that the Applicant is seeking to obtain variances in conjunction with installing a patio that exceeds maximum allowable improved lot coverage, as well as retaining walls and fencing that exceeds maximum height allowances. The comments below are provided for the Board's consideration:

- 1) As per Verona's Stormwater Control Ordinance, §150-25 the proposed improved lot coverage patio area of approximately 726 ft² (increased percentage improved lot coverage from application) requires the use of green infrastructure installations to mitigate stormwater runoff.
- 2) Scaling off the provided survey and grading plans, we calculated an Existing Improved Lot Coverage of 33.8% based on an estimated "Improved Area" of 3,661.7 ft² (please see attached annotated pdf). We calculated a Proposed Improved Lot Coverage of 41.4% based on a Proposed "Improved Area" of 4,485.5 ft² depicted in the graded plan. We understand that the maximum Improved Lot Coverage for the R-70 Zone is 35%.
- 3) The Applicant's survey plan dated October 24, 2023 does not depict a mudroom addition nor deck steps that appear to be already constructed based on photos included in the application. Was there a past application before the Board that granted a variance for total improved coverage for this site? If not, the separate plans for the mudroom, walkways, steps etc. should be included in the current application before the Board and deliberated upon as existing conditions that already exceed the maximum Improved Lot Coverage of 35%.
- 4) The drain shown on the west side of the property appears to be draining towards the driveway, directing runoff toward the street and into the municipal storm drains. The drain on the east side of the home shows no outlet and it is unknown where captured stormwater runoff would be conveyed. Minor Developments (§150-25.7), clearly states that runoff must be retained on site using green infrastructure. The existing plans do not depict any installations that would act to mitigate runoff. We recommend that the Applicant prepare plans and testify as to the proposed location(s) and type of mitigation to be installed on the site for these purposes.

- 5) The application states that the yard will undergo "leveling" and that at least two trees will be removed, as depicted on the grading and plan. We recommend that the designer provide testimony to describe the changes and whether there will be impacts to the site or adjacent properties.
- 6) The proposed installation of retaining walls on the eastern side of the backyard intersects two large deciduous trees that exist at the highest elevation of the site. The grading plans do not identify the diameter of the existing trees marked for removal. The VEC PRC wonders whether their removal would be detrimental to the stormwater runoff that will sheet flow towards the Applicant's home. Perhaps use of boulders, proposed in other areas on the site, could be used in this area to both allow for the trees' survival and create symmetry in the yard's design or could the proposed retaining walls jut out at the existing trees to accommodate them? In the event that the trees are not preserved, please refer to §493, Article II, Tree Protection, Removal and Replacement and to §150 Recommended Plant Selection List for replacement trees.
- 7) Has the existing 6-foot-high retaining wall adjacent to proposed mudroom addition been evaluated for the additional surcharge load that it will be subjected to from the building of the mudroom addition? Otherwise, will the foundations for the mudroom addition be set below the bottom of the existing retaining wall below El. 102.75?
- 8) 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 2024-06-24 Comments 8 Randolph Pl.docx



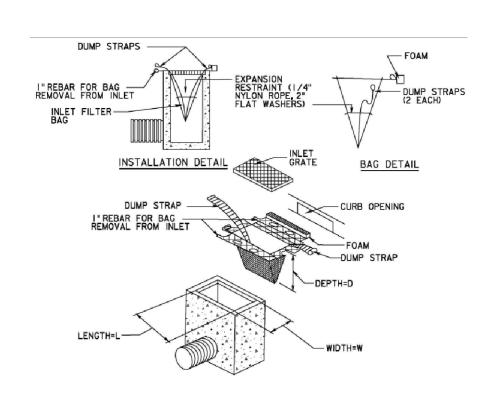
SOIL EROSION & SEDIMENT CONTROL NOTES

- 1. All soil erosion and sediment control practices on this plan will be constructed in accordance with the "New Jersey Standards for Soil Erosion and Sediment Control" 7th Edition last revised July 2017, effective December 2017. These measures will be installed prior to any major soil disturbance or in their proper sequence and maintained until permanent protection is established.
- 2. Soil to be exposed or stockpiled for a period of greater than 14 days, and not under active construction, may be required to be temporarily mulched, and seeded or otherwise provided with vegetative cover as per Appendix A3. This temporary cover shall be maintained until such time whereby permanent restabilization is established.
- 3. <u>Seeding Dates:</u> The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPSCD: Spring -3/1-5/15 & Fall -8/15-10/1
- 4. Sediment fences are to be properly trenched and maintained until permanent vegetative cover is established.
- 5. All storm drainage inlets shall be protected by one of the practices accepted in the Standards, and protection shall remain until permanent stabilization has been established. Storm drainage outlet points shall be protected as required before they become functional.
- 6. Mulch materials shall be un—rotted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District.
- 7. All erosion control devices shall be periodically inspected, maintained and corrected by the contractor. Any damage incurred by erosion shall be rectified immediately.
- 8. Paved roadways must be kept clean at all times. Do not utilize a fire or garden hose to clean roads unless the runoff is directed to a properly designed and functioning sediment basin. Water pumped out of the excavated areas contains sediments that must be removed prior to discharging to receiving bodies of water using removable pumping stations, sump pits, portable sedimentation tanks and/or silt control bags.
- 9. All surfaces having lawn or landscaping as final cover are to be provided topsoil prior to re—seeding, sodding or planting. A depth of 5.0 inches, firmed in place, is required, as per the Standards for Topsoiling and Land Grading, effective December 2017.
- 10. Steep slopes incurring disturbance may require additional stabilization measures. These "special" measures shall be designed by the applicant's engineer and be approved by the Soil Conservation District.
- 11. The Hudson-Essex-Passaic Soil Conservation District shall be notified, in writing, for the sale of any portion of the project or for the sale of individual lots. New owners' information shall be provided. Additional measures deemed necessary by District officials shall be implemented as conditions warrant.

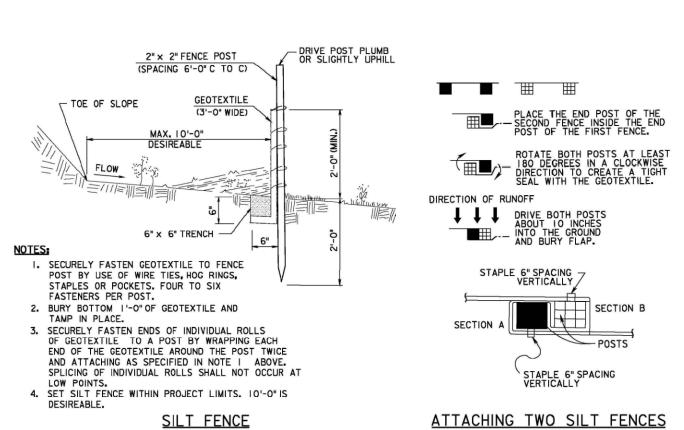
SEQUENCE OF CONSTRUCTION

- 1. INSTALL EROSION & SEDIMENT CONTROL DEVICES PER 2 DAYS EROSION CONTROL PLAN/DETAILS. 3 WEEKS 2. PERFORM ROUGH GRADING; INSTALL BLOCK WALLS, BOULDERS AND LANDSCAPE STEPS. 1 WEEK 3. INSTALL PATIO, BELGIUM BLOCK CURBING, AND DRAINAGE. 3 DAYS 4. PERFORM FINE GRADING. 1 WEEK
- 5. INSTALL BLACK ALUMINUM FENCING. 2 WEEKS INSTALL PERMANENT STABILIZATION PER PLANTING PLAN. 1 DAY

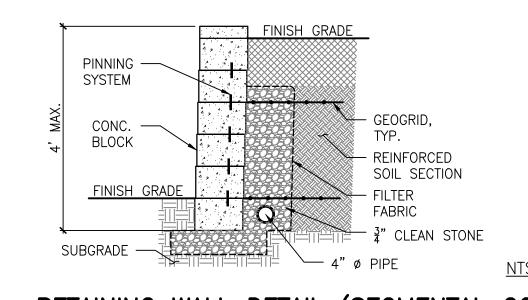
7. REMOVE EROSION & SEDIMENT CONTROL DEVICES.



INLET FILTERS, TYPE 2



EROSION CONTROL DETAILS



RETAINING WALL DETAIL (SEGMENTAL CONC. BLOCK)

RCO 8 R. Ver

This design is property of Scalora Landscaping Services, Inc. and cannot be used without

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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

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
D. C
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