

## Memo

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

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

**c:** Verona Environmental Commission Chair

**Date:** March 8, 2024

**Re:** **Case # 2024-04**  
68 Forest Avenue [Block 2101, Lot 45]  
Verona, New Jersey

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

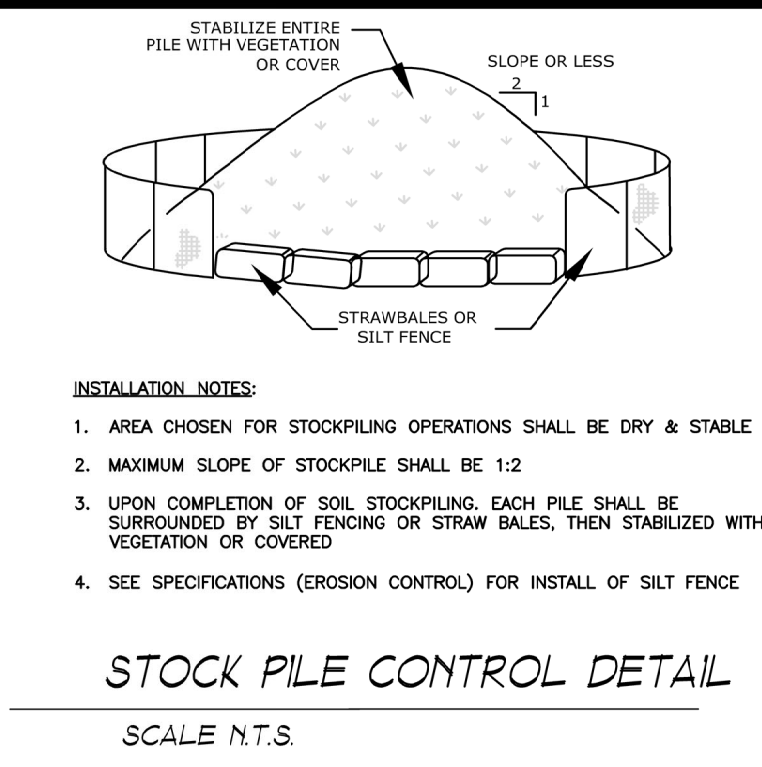
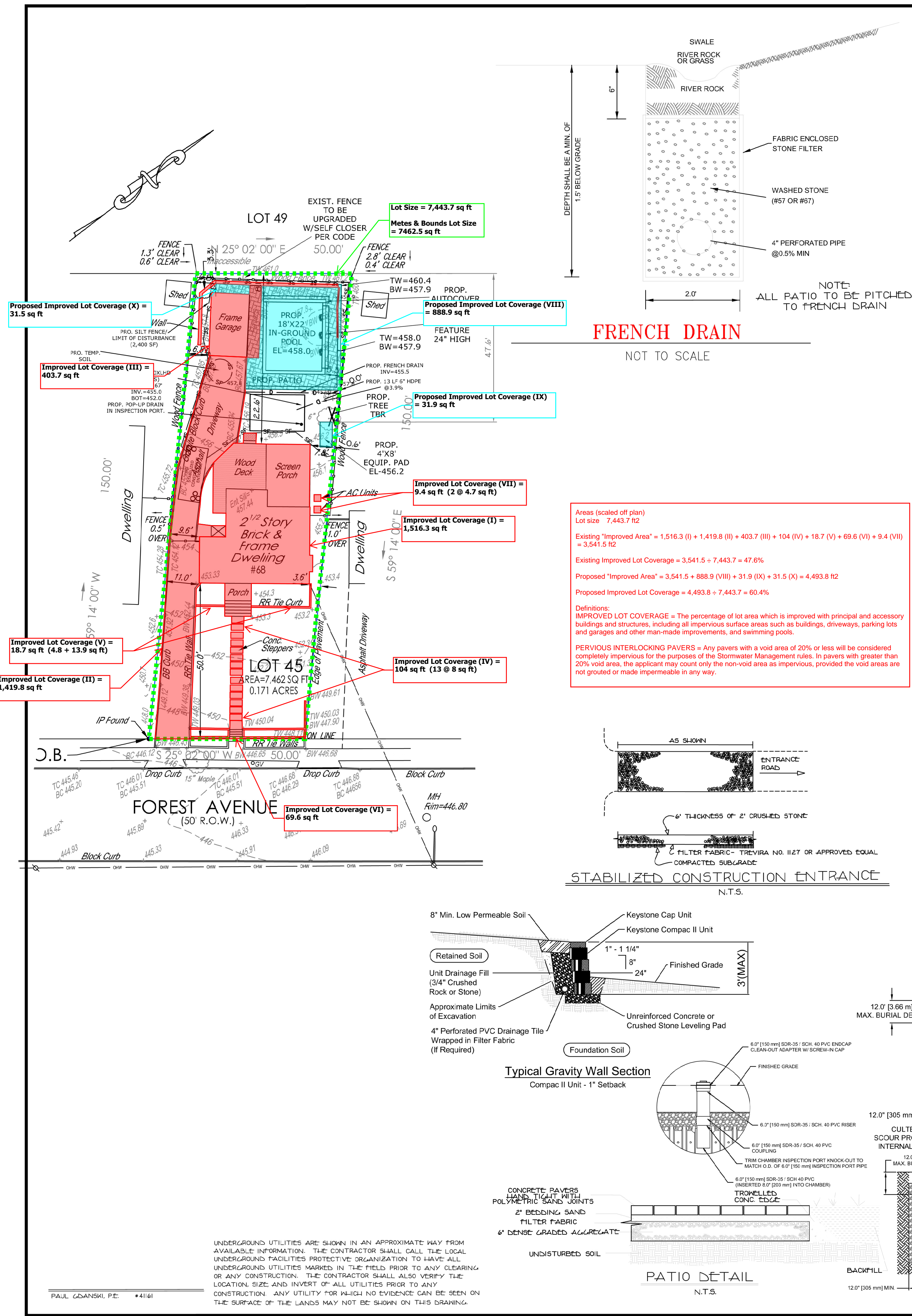
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The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 68 Forest Avenue in Verona submitted by Christopher Oghia, which we received on March 2, 2024. We understand that the Applicant is seeking to obtain a variance for the addition of an in-ground pool and related patio which will increase impervious coverage over the allowable total improved lot coverage for Zone R-50. Additionally, the pool, patio and related equipment will encroach into either the rear and/or side yard setbacks and a tree is proposed for removal.

- 1) We understand that the permissible maximum Improved Lot Coverage for the R-50 Zone is 40%. Existing and Proposed Improved Lot Coverage is listed as 45.7% and 57.8% on the application, respectively. Scaling off the drawing, we calculated an Existing Improved Lot Coverage of 47.6% based on an Existing "Improved Area" of 3,541.5 ft<sup>2</sup> (please see attached annotated pdf). Furthermore, we calculated a Proposed Improved Lot Coverage of 60.4% based on a Proposed "Improved Area" of 4,493.8 ft<sup>2</sup>. The Applicant indicated in their application that the property was small even though it exceeds the permitted lot area for the R-50 zone by almost 2,500 ft<sup>2</sup>.
- 2) The VEC PRC understands that the Applicant will exceed the 400 ft<sup>2</sup> of new impervious surface, estimated by the Applicant at 1,932 ft<sup>2</sup>, which requires stormwater management mitigation using green infrastructure as per [§455-17 Minor Developments](#). The PRC recommends that the Applicant provide testimony as to which green infrastructural best management practices are planned for installation and where they will be installed on the property. Should the Applicant install a rain garden or bioretention basin for mitigation, the Applicant should also provide a planting list in accordance with [Recommended Plant Selection List](#) included in Verona's Zoning Code, §150. The Applicant may also consider the installation of a pervious paving systems for the related patio space, or grass swales and the planting of additional trees to help capture and infiltrate runoff onsite.
- 3) The VEC PRC understands that the applicant intends to remove a tree, but has not submitted information as to the DPM, (diameter at point of measure) in order to replace the proper amount of trees and or pay into the tree fund, as is required. For replacements, we recommend that the Applicant choose from Verona's [Recommended](#)

[Plant Selection List](#) included in Verona's Zoning Code, §150. We also recommend that the Applicant review [Verona's Tree Ordinance, §493, Article II](#), specifically §493-28, which discusses required tree replacements.

- 4) We recommend that downspout pipes on the home be disconnected from storm drains and redirected to flow away from the home, over the property's permeable areas, gardens, and lawns.
- 5) 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.



HUDSON ESSEX PASSAIC COUNTY SOIL CONSERVATION DISTRICT  
SOIL EROSION AND 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 project 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 shorely permanent revegetation is established.

3. Seeding Dates: The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPSCD: Spring: 3/1-5/1 and Fall: 8/15-10/1

4. Sediment fences are to be properly trench 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 in-unrooted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring soil, liquid mulch binders, or setting 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. The Hudson-Exsex-Passaic Soil Conservation District will be notified in writing at least 48 hours prior to any soil disturbing activities. Fax: (862) 333-4507 OR email: INFORMATION@HEPSCD.ORG

9. The applicant must obtain a District Board Report of Compliance prior to applying for the Certificate of Occupancy or Temporary Certificate of Occupancy from the respective municipality, NJ - HCA or any other controlling agency. Contact the District at 862-333-4505 to request a Final Inspection, giving advanced notice upon completion of the stabilization measures. A performance deposit may be posted with the District when winter weather or snow cover prohibits the proper application of seed, mulch, fertilizer or hydro-seed.

10. 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.

11. 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, firm in place, is required, as per the Standards for Topsoiling and Land Grading, effective December 2017.

12. All plan revisions must be submitted to the District for proper review and approval.

13. A crushed stone wheel cleaning tracking-pad is to be installed at all site exits using 2 1/4" crushed angular stone (ASTM 2 or 3) to a minimum length of 50 feet and minimum depth of 6". All driveways must be provided with crushed stone until paving is complete.

14. Steep slopes incurring disturbance may require additional stabilization measures. These "special" measures shall be designed by the applicant's engineer and approved by the Soil Conservation District.

15. The Hudson-Exsex-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 of approval.

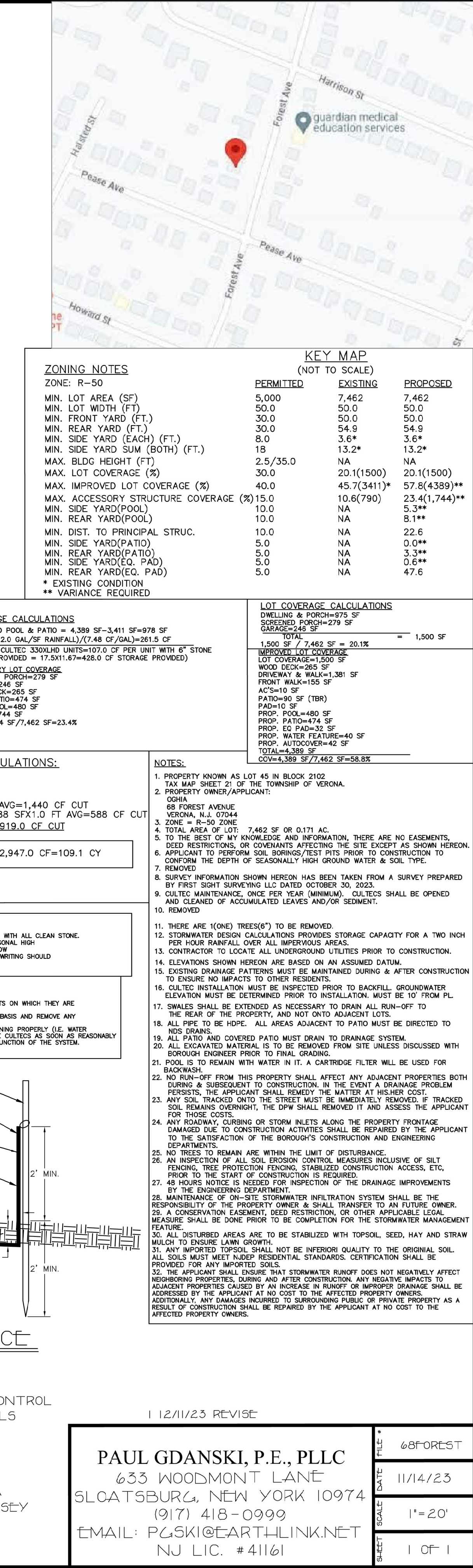
SOIL COMPACTION EXEMPTION NOTE  
AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PMA) UNDER EXISTING CONDITIONS. THE SITE IS NOT COVERED IN WOODY VEGETATION NOR REGROWTH. IN ACCORDANCE WITH NEW JERSEY STANDARD FOR LAND GRADING (REVISED 2017), NON WOODY VEGETATED PMA AREAS FALL UNDER THE SOIL COMPACTION EXEMPTION LIST AS A "URBAN REDEVELOPMENT" AND IS DEFINED AS "PREVIOUSLY DEVELOPED".

CONSTRUCTION SEQUENCE (SITEWORK)	DURATION	DRAINAGE CALCULATIONS
1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.	1 DAY	PROPOSED POOL & PATIO = 4,389 SF=3,411 SF=978 SF (978 SF)(2.0 GAL/SF RAINFALL)/(7.48 CF/GAL)=261.5 CF
2. CONSTRUCT EROSION CONTROL DEVICES.	1 DAY	SCREENED PORCH=279 SF
3. CLEAR SITE WITHIN LIMIT OF DISTURBANCE, STRIP AND STOCKPILE TOPSOIL AND GRADE SITE.	1 DAY	WOOD DECK=245 SF
4. EXCAVATE FOR POOL & DETENTION.	1 WEEK	SCREENED PORCH=279 SF
5. CONSTRUCT POOL AND APPURTENANCES.	2 MONTHS	WOOD DECK=245 SF
6. CONSTRUCT PATIO AND DETENTION.	2 DAYS	AC'S=10 SF
7. AFTER CONSTRUCTION IS COMPLETE, PERFORM FINAL GRADING, SPREAD TOPSOIL AND INSTALL LANDSCAPING.	1 WEEK	PROP. PATIO=474 SF
8. REMOVE SOIL EROSION CONTROL DEVICES WHEN ALL DISTURBED AREAS HAVE BEEN INSTALLED.	1 DAY	PROP. POOL=480 SF
		TOTAL=1,744 SF
		COV=1,744 SF/7,462 SF=23.4%

SOIL MOVEMENT CALCULATIONS:

POOL = 480 SF X 3.0 FT AVG=1,440 CF CUT  
PATIO/EQ PAD/COV/FEAT=588 SFX1.0 FT AVG=588 CF CUT  
CULTEC = 11.67X17.5X4.5=919.0 CF CUT

NET EXPORT FROM SITE = 2,947.0 CF=109.1 CY



## 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 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>