Roth Engineering, LLC
52 Quail Run
Long Valley, NJ 07853
Phone: 973-715-7427
mike@rothengineers.com

ROTH ENGINEERING
rothengineers.com

July 19, 2021

Via UPS Ground & Email: **Ashley Neale (aneale@veronanj.org)**
Verona Board of Adjustment Administrator
Township of Verona
600 Bloomfield Avenue
Verona, New Jersey 07044

Re: **Runnymede Gardens – Cam Gar at Verona LLC**
Block 2303, Lot 1
Township of Verona, Essex County, NJ
Roth Engineering Project # 201006

Dear Ms. Neale:

We are hereby submitting this response letter to address the review comments for the above noted project. As you are aware, the July 8, 2021 Zoning Board of Adjustment meeting did not take place and this application is anticipated to be heard at the August 12, 2021 meeting. We are sending a digital version of this letter with enclosures directly to the Construction Official, Board Engineer, and Chairperson of the Environmental Commission via email. We have enclosed the below additional information to support our responses:

- One (1) copy of the Hudson-Essex-Passaic Soil Conservation District approval letter dated May 7, 2021.
- One (1) copy of the County of Essex no impact letter dated April 19, 2021.
- One (1) copy of the Fire Truck Turning Plan exhibit prepared by Roth Engineering, LLC dated June 30, 2021.
- One (1) copy of the Steep Slope Analysis prepared Roth Engineering, LLC dated July 14, 2021.
- One (1) copy of the Existing Tree Investigation Letter prepared by Bowman Consulting Group dated July 19, 2021.
- One (1) copy of the Geotechnical Investigation Report (Figures 1 through 6 only) prepared by SESI Consulting Engineers dated June 11, 2021.
- One (1) copy of an Aerial Map dated December 31, 2001 showing the existing pools and patio.

Our specific responses to the review comments are as follows:

ROTH ENGINEERING

Construction Official's June 21, 2021 memorandum

1. Both dwelling units are designed to be handicapped adaptable (specifically in the bathrooms, the kitchens and the interior circulation). Details will follow on the construction permit drawings that will be created to submit to the building department. The site improvements provide for handicap parking and ADA access from the parking lot to the building.
2. Egress windows are provided in all of the bedrooms. Operable windows are gliding style units similar to the type used in the complex. The exterior brick, siding, asphalt roofing, and doors are similar to the types used in the complex. The building is intended to blend with the rest of the facility, with the understanding that the final selections of current materials may differ slightly from the rest of the complex.
3. Emergency generators are not proposed.
4. The proposed parking lot provides for site vehicular circulation for both day-to-day use and emergency situations. The attached "Fire Truck Turning Plan" exhibit shows a fire truck pulling into the proposed parking lot, backing up, and then leaving the site which is consistent with the turning movement presented for the previously approved project.
5. The proposed fencing along the sidewalk in front of the proposed building is cedar privacy fencing to minimize any headlight glare towards the new building when pulling into the parking lot. The proposed parking spaces are located along the low side of an existing retaining wall and there will be no light glare towards building #12.
6. The project proposes two ground mounted A/C condenser units. There is no roof top equipment proposed.
7. An enclosure is proposed around the dumpster area which consists of 8' high chain link fencing with green privacy slats.
8. The lighting design is focused on this project site to protect public safety in the parking lot and walkway areas with no light spillage off this project site as demonstrated on the lighting plan of the site plans. The project proposes new landscaping to soften the building and hardscape areas which includes a total of 22 trees (plans currently show 15 trees), 39 shrubs, and groundcovers for this project site.
9. The parking lot pole mounted lighting consists of recessed lights in the lamp head that are downward facing and will not reflect or shine on adjacent dwelling units. The lighting design is subject to the Township of Verona Engineer's review.
10. The proposed parking spaces are striped.
11. We agree to comply with the Township of Verona Fire Marshal regarding Knox Boxes (if required) on the building and specific location.
12. We agree to comply with the Township of Verona Fire Marshal regarding fire lane striping/signage (if required).
13. The project has obtained HEP Soil Conservation District approval dated May 7, 2021. A copy of the approval is enclosed with this letter.

14. The project results in a decrease in impervious coverage and proposes stormwater inlets and piping that will connect to the existing system. The stormwater design is subject to the Township of Verona Engineer's review.
15. The project does not propose any electric vehicle charging stations.
16. Retaining walls forty-eight inches or higher will be submitted for a construction permit with signed and sealed engineered drawings.
17. The project will comply with ordinance requirements related to the COAH fees.
18. There are no ground mounted signs proposed. The proposed building will include a building identification sign consistent with the other buildings in the complex which is subject to the Zoning regulations of the Township of Verona.

Bright View Engineering (Board Engineer) June 30, 2021 letter

Site Plan

1. The project proposes disturbance on a small portion of steep slope areas (slope equal to or greater than 25 percent) however those slopes are man-made slopes that were created at the time of the construction of the development and are not environmentally sensitive steep slopes. A steep slope analysis is included in this resubmission package.
2. No response required.
3. The construction drawings will depict the various site furnishings. It is undetermined at this time if the tables and chairs will be fixed.
4. The construction drawings will depict the paver detail.
5. Pervious pavers are not proposed at this time.
6. Retaining walls forty-eight inches or higher will be submitted for a construction permit with signed and sealed engineered drawings.

Stormwater

7. The project is not classified as a minor development as the project is proposing a decrease in impervious surface of 404 square feet.
8. The project is not classified as a major development as demonstrated below:
    a. The disturbance of 0.5 acre or more of land since February 2, 2004;
    Condition not triggered since the proposed disturbance is shown as 0.42 acres

    b. The creation of 5,000 square feet or more of "regulated impervious surface" since February 2, 2004;
    Condition not triggered since the project results in a 404 square foot decrease in regulated impervious surface, see below for compliance with regulated impervious surface:
        (1) A net increase of impervious surface; **The project results in a 404 square foot decrease in impervious surface**
        (2) The total area of impervious surface collected by a new stormwater conveyance system (for the purpose of this definition, a "new stormwater conveyance system"

is a stormwater conveyance system that is constructed where one did not exist immediately prior to its construction or an existing system for which a new discharge location is created); **There is no new stormwater conveyance system proposed, the site already has an existing stormwater conveyance system.**
(3) The total area of impervious surface proposed to be newly collected by an existing stormwater conveyance system; and/or; **The existing impervious surface is already draining to an existing conveyance system and the proposed surface will drain to the same system therefore there is no runoff that is being newly collected.**
(4) The total area of impervious surface collected by an existing stormwater conveyance system where the capacity of that conveyance system is increased. **The project results in a decrease in impervious coverage therefore the flow within the existing conveyance system is being decreased.**

c. The creation of 5,000 square feet or more of "regulated motor vehicle surface" since March 2, 2021; or
Condition not triggered as the proposed increase in motor vehicle surface is 1,988 square feet. Please note that there is a portion of existing drivable concrete surface that is an existing motor vehicle surface.

d. A combination of b and c above that total an area of 5,000 square feet or more. The same surface shall not be counted twice when determining if the combination area equals 5,000 square feet or more. **Condition not triggered as the combination of b and c is 1,584 square feet.**

9. Pipe capacity calculations will be provided to ensure that the proposed system can accommodate the flow directed to it.
10. We request a waiver for providing a maintenance manual due to the scope of the project. The project is only proposing an extension of the existing stormwater conveyance system and there are no new stormwater measures being proposed.

<u>Utilities</u>

11. The applicant will file with the local sewer department for the proposed connections. The project does not trigger the State's rules for a Treatment Works Approval therefore submission to the Township treatment plant is not applicable.
12. A detail of the proposed sanitary sewer connection will be provided.
13. Will-serve letters from all applicable utility companies will be provided.
14. The applicant will file with the local water department for the proposed connections. The project does not trigger the State's rules for a Water Extension Permit.
15. The proposed building will not be sprinklered as it is not required by code.

<u>Site Operation & Maintenance</u>

16. There is open space to the southwest part of the proposed parking lot for snow storage.
17. There is no change to the trash recycling collection for the property.

Traffic & Circulation

18. No response required.
19. No response required.
20. The proposed spaces are 9' x 18' and comply with RSIS.
21. We will show that the sidewalk is no less than 4' wide per the ADA guidelines and the proposed handicap space provides ADA access to the building and amenity space.
22. The proposed parking lot provides for the vehicles anticipated on-site. The enclosed "Fire Truck Turning Plan" exhibit shows a fire truck pulling into the proposed parking lot, backing up, and then leaving the site which is consistent with the turning movement presented for the previously approved project. This turning movement provides for the worst-case scenario since the fire truck is larger than delivery trucks, ambulance, and refuse trucks.
23. See the above responses.
24. We will provide a stop bar and stop sign where the project site driveway intersects with the main existing drive.

Lighting Comments

25. No response required.
26. We will provide the additional lighting information.
27. We will utilize the Township Code and IESNA as a guideline for the lighting analysis.
28. We will revise the lighting design to obtain a minimum of 2 footcandles at the accessible parking spaces to meet Township Code requirements.

Landscape Plan

29. No response required.
30. The project proposes disturbance on a small portion of steep slope areas (slope equal to or greater than 25 percent) however those slopes are man-made slopes that were created at the time of the construction of the development and are not environmentally sensitive steep slopes. A steep slope analysis is included in this resubmission package.
31. We agree to provide 22 total replacement trees (7 additional trees) on the Runnymede Garden complex to comply with the tree replacement requirements and comments from the Environmental Commission.
32. A letter from a licensed landscape architect is enclosed in this submission to confirm the damaged trees on the project site.
33. The project is proposing to meet the tree replacement requirements.
34. No response required.
35. We will consider the use of native species for the landscape design.
36. We will add a note to the plans stating that the removal and/or replacement of trees is subject to the Township Shade Tree Commission's review and approval.

37. We will add a note to the plans stating that any tree removal be completed outside of typical nesting dates for fauna native to the area.

Additional Permits & Approvals

38. The project has obtained HEP Soil Conservation District approval dated May 7, 2021. A copy of the approval is enclosed with this letter.

39. The project has obtained a no impact letter from the County of Essex dated April 19, 2021. A copy of the approval is enclosed with this letter.

Plan Review Committee of the Verona Environmental Commission July 1, 2021 memorandum

1. The project does not trigger a major or minor development per Township's stormwater ordinance (No. 2021-09):

   Major Development

   - Disturbance since February 2, 2004 is less than 0.5 acres. This disturbance proposed for this project is 0.42 acres and is the only proposed disturbance since that time.
   - Creation of regulated impervious surface since February 2, 2004 is less than 5,000 square feet. The regulated impervious surface is being decreased by 404 square feet as a result of this project.
   - Creation of regulated motor vehicle surface since March 2, 2021 is less than 5,000 square feet. The regulated motor vehicle surface for this project is 1,988 square feet.
   - The combination of 2 and 3 do not exceed 5,000 square feet.

   Minor Development

   - The project is creating less than 400 square feet of new impervious surface and is in fact decreasing the impervious surface by 404 square feet.

2. The former pool and patio which is now a concrete/gravel area is an impervious surface. Although vegetation has appeared over time, it is due to lack of maintenance in that area and there is a solid concrete surface underneath any vegetation. There are a few small trees that range in size from 6 to 8 inches that have grown within the area of the former swimming pools. At the time of abandoning the pool, the owner backfilled the pool with on-site dirt and gravel and there is still the underlying concrete surface of the bottom of the pool. The applicant performed geotechnical testing and their findings show the underlying concrete surfaces of the pool and patio. The geotechnical report is enclosed in this submission package. The patio goes up to the fence line and comes off the wall by approximately 6 feet. There is some impervious surface that is visible while other areas have weeds that have grown through the concrete although the concrete underlying surface is still there as documented in the geotechnical report. Included in this submission package is an aerial map from late 2001 that show the two swimming pools and patio.

3. The project site is a previously disturbed area based on the prior uses and as indicated in the above response there is a solid concrete surface underneath any vegetation. We investigated this area further and took a more conservative approach at the coverage

breakdown. We included an area consisting of a 10' diameter around the few existing trees that are within the former pool and patio area, and we still do not trigger a minor development as shown below:

EXISTING AND PROPOSED COVERAGES				
Existing Coverages			**Proposed Coverages**	
Description	Area (SF)		Description	Area (SF)
Concrete/Gravel Area (Former Pool and Patio)	5,677		Proposed Apartment Building	1,279
Concrete Area (Refuse)	2,498		Proposed Parking Lot and Dumpster Area	4,486
Current Improved Lot (Impervious) Coverage	8,175		Proposed Walkways and Patio Areas	2,006
Area around trees that have grown within former pool	354			
New Improved Lot (Impervious) Coverage	7,821		**Total Improved Lot (Impervious) Coverage**	7,771
			Decrease in Improved Lot (Impervious) Coverage	50

4. The project is creating less than 400 square feet of new impervious surface and is in fact decreasing the impervious surface by 404 square feet or 50 square feet by the new conservative approach as shown above therefore green infrastructure is not required.

5. The project results in a decrease in impervious coverage therefore there is a decrease in flow to the overall drainage point. BNE Management has indicated that there have not been any reported problems in this specific storm system. The applicant does agree to provide pipe flow calculations for the proposed system on the project site to ensure adequate capacity to complies with the Board Engineer's comment.

6. The project proposes disturbance on a small portion of steep slope areas (slope equal to or greater than 25 percent) however those slopes are man-made slopes that were created at the time of the construction of the development and are not environmentally sensitive steep slopes. A steep slope analysis is included in this resubmission package.

7. We agree to provide 22 total replacement trees (7 additional trees) on the Runnymede Garden complex. A letter from a licensed landscape architect is enclosed in this submission to confirm the damaged trees on the project site.

8. We agree to follow the species recommendations for the proposed landscaping and to include deer fencing around the trees.

9. The proposed outdoor fireplaces use gas to provide heat but do not produce smoke. These types of fireplaces are used at several BNE facilities in spaces that are even in closer proximity to buildings and there are no reported issues. The chimney has a proposed height of 9 feet 2 inches.

10. The HVAC units are proposed at the side of the building and are typical for this type of residential building. No screening is proposed for these units as the newer units are efficient and produce minimal noise.

11. We have reviewed the "Low Impact Planning and Construction Checklist" and the project does include some of these practices with respect to Grounds & Landscaping and Lighting.

We believe that this response letter addresses the comments and updated plans will ultimately be submitted after the hearing (if approved) for resolution compliance review. We kindly request that the Construction Official, Board Engineer, and Chairperson of the Environmental Commission issue updated reviews based on this new information if applicable. Should you have any questions, please do not hesitate to contact our office.

Best Regards,

Michael J. Roth, P.E., P.P.
mike@rothengineers.com
(973) 715-7427

Enclosures via email:

Township of Verona
Thomas Jacobsen, CPM, Construction Official (tjacobsen@veronanj.org)
Aaron Schrager, PE, PP, CME, Board Engineer (aschrager@bvengr.com)
Jessica Pearson, Chairperson of the Environmental Commission (jpearson@veronanj.org)

Project Team
Charles Thomas, Jr., BNE Real Estate Group (cthomas@bnerealestate.com)
Joseph Feldman, BNE Real Estate Group (jfeldman@rentnjapts.com)
Lisa Phillips, Law Offices of Richard Schkolnick, LLC (lphilplan@gmail.com)
Richard Schkolnick, Law Offices of Richard Schkolnick, LLC (rick@schkolnicklaw.com)
Frederick T. Wawra, RA NCARB, Fox Architectural Design PC (fwawra@foxarch.com)
William Hamilton, Bowman (whamilton@bowman.com)

ROTH
ENGINEERING

New Jersey Natural Resources Conservation Program

HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT
80 ORCHARD STREET
BLOOMFIELD, NJ 07003-5104
Telephone: (862) 333-4505
Fax: (862) 333-4507
www.hepsoilnj.org

May 7, 2021

Mr. Charles Thomas
Cam Gar at Verona LLC
16 Microlab Road
Livingston, NJ 07039

RE: **Runnymede Gardens Low Rise Apartment**
34 Linn Drive, Verona, NJ
Block: 2303 Lot: 1
HEPSCD Ch.251 ID# **221-E-6106,** plan by Roth Engineering, dated 4/13/21

Dear Sir/Madam:

The District has completed the review of the soil erosion and sediment control plan for the above referenced project and hereby reports that the plan meets the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C.290-1.1 et seq., promulgated pursuant to the New Jersey Soil Erosion and Sediment Control Act, N.J.S.A.4-24-39 et seq.). Accordingly, the plan is **certified** by the Hudson-Essex-Passaic Soil Conservation District subject to the following conditions:

- 48 hours prior to the commencement of any construction activity, complete & submit the District **Start Notice** form. The form is included in this mailing.
- A copy of the certified plan must be kept on the job site at all times.
- The applicant or contractor must request a final inspection (once landscaping and final soil stabilization is complete) & obtain a Report of Compliance prior to seeking a temporary or permanent Certificate of Occupancy.
- The District must be provided with written notification of any conveyance of this project, subject property, or portions thereof, including individual residential lots if applicable. Said notice must provide the names, addresses, and telephone numbers of subsequent owners.
- The District must be informed of address and or telephone number changes of owners, agents responsible for site construction, and job supervisors.

Please be advised that the Soil Erosion and Sediment Control Act authorizes the issuance of stop construction orders and penalties of up to $3000 per day for violations of the certified plan or for failure to comply with the aforementioned requirements. Please be further advised that any conveyance of this project or portions thereof will transfer full responsibility for compliance with the certified plan to subsequent owners. Please contact the District if you require assistance implementing the certified soil erosion and sediment control plan. This certification is valid for **3-1/2 years** from the date of this letter and is limited to the controls specified in this plan. It is not authorization to engage in proposed land use unless such use has been previously approved by the municipality or other controlling agency.

Yours truly,

Matthew J. Ward

Matthew J. Ward
Chairman

Cc: Planner, Municipality, County

COUNTY OF ESSEX
DEPARTMENT OF PUBLIC WORKS
ESSEX COUNTY PLANNING BOARD
900 BLOOMFIELD AVENUE
VERONA, NEW JERSEY 07044-1393

☎ (973) 226-8506
🖷 (973) 226-7469

JOSEPH N. DIVINCENZO, JR.
COUNTY EXECUTIVE

Joseph Alessi
Chairman

April 19, 2021

Michael J. Roth, PE, PP
Roth Engineering, LLC
52 Quail Run
Long Valley, NJ 07853

RE: Proposed Improvements to Runnymede Gardens
Cam Gar at Verona, LLC
34 Linn Drive
Verona, Essex County, New Jersey
Block 2303, Lot 1
Plans By: Roth Engineering, LLC
Plans Dated: 04/13/2021
ECPB File #: N.A/48-C-119

Dear Mr. Roth:

The technical staff of the Essex County Planning Board has reviewed the submitted plans, prepared for the above referenced site plan application. It has been determined that at this time there is no identifiable impact to Essex County facilities that would occur as part of this proposed improvement. Therefore, an application to the Essex County Planning Board is not required.

Enclosed please find your submitted check, numbered 11783 in the amount of $310.00 which is being returned.

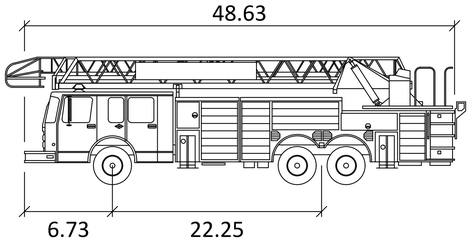
Any and all changes to t/he plans must be resubmitted to the Essex County Planning Board for further review and/or approval.

If you have any questions, please direct them to me at (973) 226-8500, extension 2580 or dantonio@essexcountynj.org .

Sincerely,

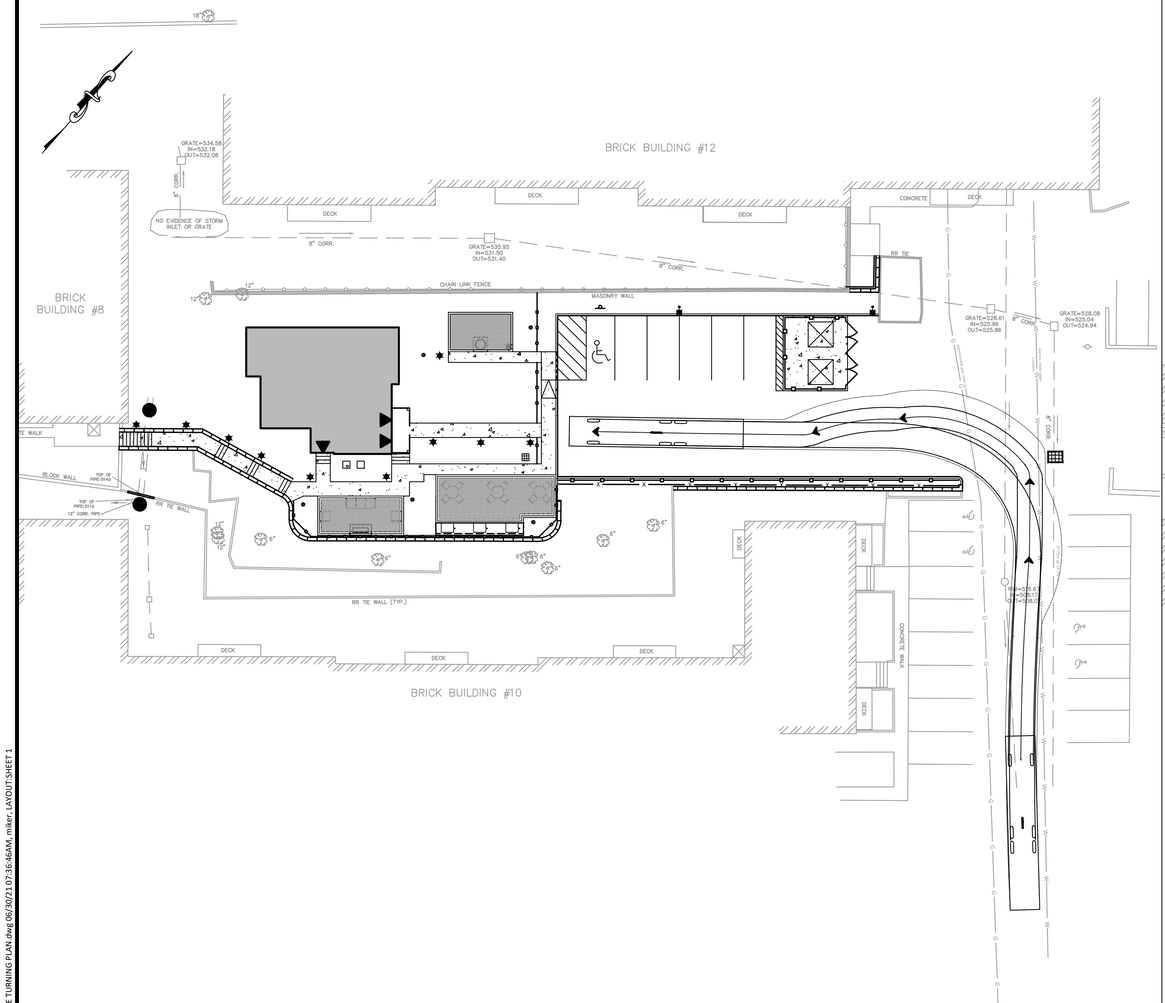
David Antonio

David Antonio, P.P., AICP
County Planner

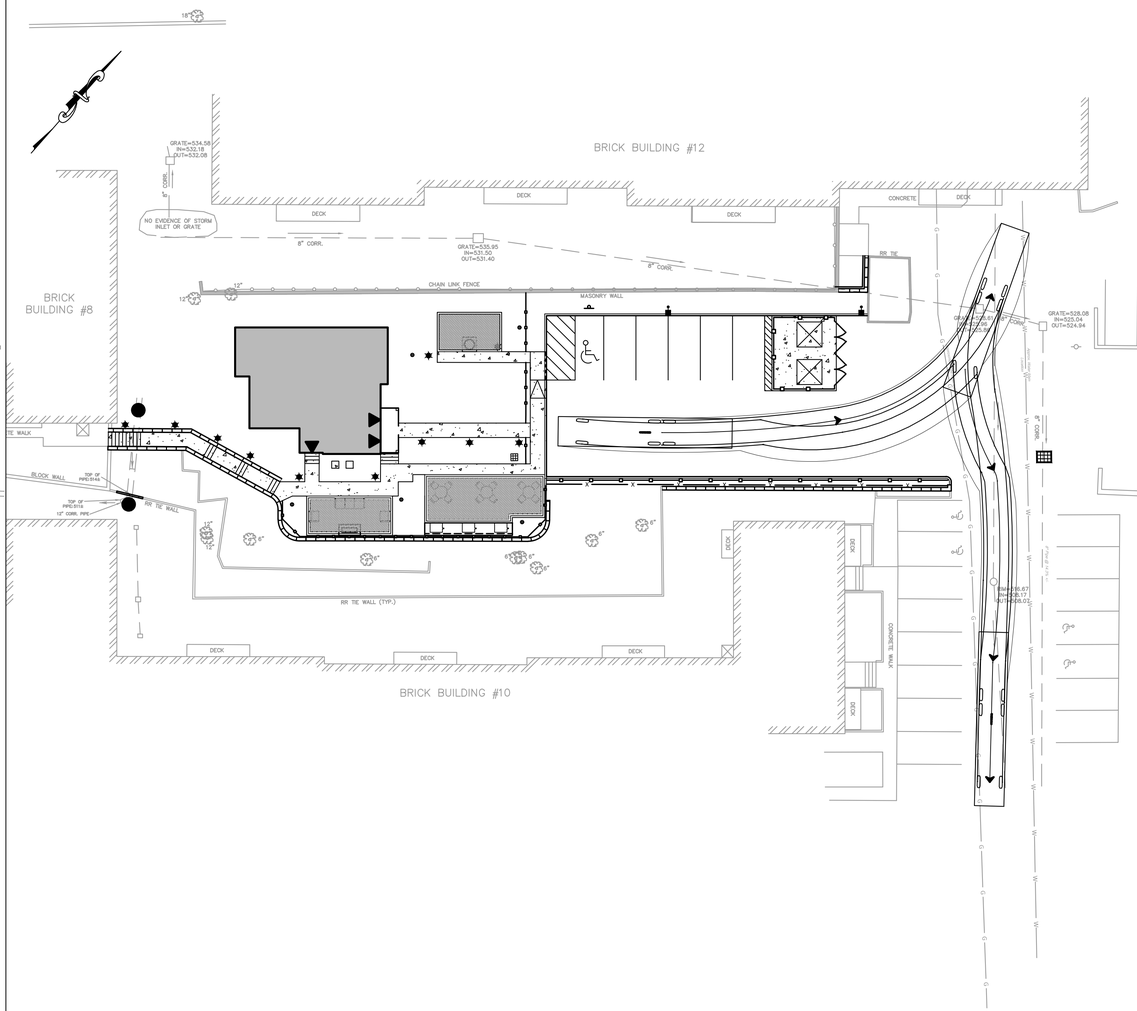


Firetruck

	feet
Width	: 8.25
Track	: 7.00
Lock to Lock Time	: 6.0
Steering Angle	: 38.0



FIRE TRUCK ENTERING SITE



FIRE TRUCK EXITING SITE

SCALE: 1"=20'
0 20 40 80 ft.

REV #	DATE	REVISION

MICHAEL J. ROTH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

ROTH ENGINEERING
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28309800
ROTH ENGINEERING, LLC
52 QUAIL RUN, LONG VALLEY, NJ 07853
PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

IMPROVEMENTS TO RUNNYMEDE GARDENS

FIRE TRUCK TURNING PLAN

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 06/30/21

PROJECT NO.: 201006

SHEET NO.:
1 OF 1

STEEP SLOPE LEGEND

SLOPE LEGEND	SLOPE CATEGORIES	AREA DISTURBED
	0-24.99%	15,210 SF (83% OF AREA DISTURBED)
	> 25%	3,100 SF (17% OF AREA DISTURBED)
	TOTAL AREA	18,310 SF

THE PROPOSED GRADING OCCURS IN AREAS THAT ARE PREVIOUSLY DISTURBED. PLEASE NOTE THAT THERE IS SOME DISTURBANCE IN AREAS THAT EXCEED A 25 PERCENT SLOPES HOWEVER THESE SLOPES ARE MAN-MADE SLOPES THAT WERE CREATED WHEN THE PRIOR DEVELOPMENT OF THE APARTMENT COMPLEX WAS GRADED AND ARE NOT CONSIDERED ENVIRONMENTALLY SENSITIVE STEEP SLOPES.

BRICK BUILDING #12

BRICK BUILDING #8

BRICK BUILDING #10

AREA CONTAINING A SLOPE OF 25% OR GREATER, TYP. (SEE STEEP SLOPE LEGEND)

LIMIT OF DISTURBANCE = 0.42 AC.

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

SCALE: 1"=10'

0 10 20 40 ft.

REV #	DATE	REVISION

MICHAEL J. ROTH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

ROTH ENGINEERING
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28309800
ROTH ENGINEERING, LLC
52 QUAIL RUN, LONG VALLEY, NJ 07853
PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

IMPROVEMENTS TO RUNNYMEDE GARDENS

STEEP SLOPE ANALYSIS

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 07/14/21

PROJECT NO.: 201006

SHEET NO.: 1 OF 1

Bowman

July 19, 2021

Ashley Neale
Verona Board of Adjustment Administrator
Township of Verona
600 Bloomfield Avenue
Verona, New Jersey 07044

RE: Existing Tree Investigation Letter

Dear Ms. Neale:

In response to comment #32 from the Engineering Site Plan Review Letter dated 06/30/21 and comment #7 from the Verona Environmental Commission Review Letter dated 07/01/21 we offer the following summary of our site visit and assessment of the referenced damaged plant material.

As per Bowman's site visit May 6, 2021, Aaron Pastore, a licensed landscape architect in the State of New Jersey and employee of Bowman, assessed the existing vegetation on site and found that the (12) arborvitae that are scheduled to be removed are located in less than ideal growing conditions and appear significantly damaged. It was observed that the trees have been negatively impacted by the following: root compaction by adjacent concrete pavement (less than 12" from base of tree), proximity to the 6.5' ht. retaining wall and associated chain link fence (tree root system located at/under base of wall), and improper drainage. The tree roots have undoubtably been altered and restricted, leading to an unhealthy and weakened tree. In addition, years of improper pruning techniques and the cumulative snow & ice damage, has left these trees in an overall state of decline.

Should you have any questions, please do not hesitate to contact our office.

Sincerely,

William Hamilton
Vice President
whamilton@bowmanconsulting.com

SESI
CONSULTING
ENGINEERS

GEOTECHNICAL INVESTIGATION REPORT

Proposed Improvements at Runnymede Gardens
34 Linn Drive
Verona, New Jersey

Prepared For:

CAM GAR AT VERONA, LLC
P.O. Box 383
Livingston, NJ 07039

Prepared By:

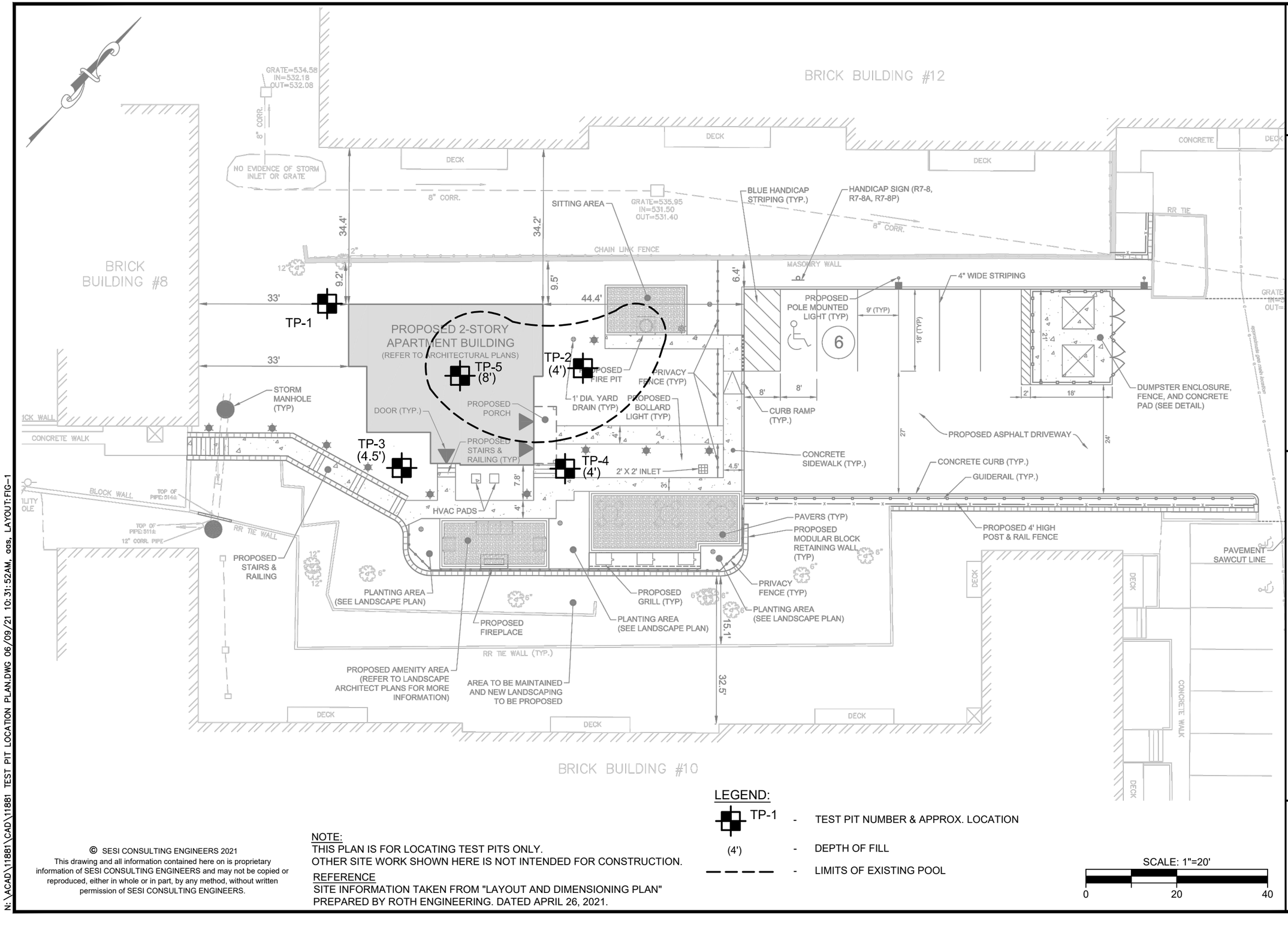
SESI CONSULTING ENGINEERS
12A Maple Avenue
Pine Brook, NJ 07058

Project No.: 11881

June 11, 2021

James B. McGrath, P.E.

Michael St. Pierre, P.E.
NJ Lic. No. 41633



LEGEND:

TP-1 - TEST PIT NUMBER & APPROX. LOCATION

(4') - DEPTH OF FILL

- - - - - LIMITS OF EXISTING POOL

SCALE: 1"=20'

0 20 40

NOTE:
THIS PLAN IS FOR LOCATING TEST PITS ONLY.
OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

REFERENCE
SITE INFORMATION TAKEN FROM "LAYOUT AND DIMENSIONING PLAN" PREPARED BY ROTH ENGINEERING. DATED APRIL 26, 2021.

N:\ACAD\11881\CAD\11881 TEST PIT LOCATION PLAN.DWG 06/09/21 10:31:52AM, dgs, LAYOUT:FIG-1

dwg by: yy
chk by: FL
scale: AS NOTED
date: 06/09/2021

SESI CONSULTING ENGINEERS
CERT. OF AUTH. # 24GA27934700
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

project: RUNNYMEDE GARDENS
34 LINN DRIVE
VERONA, NJ, 07044

title: TEST PIT LOCATION PLAN

job no: 11881
drawing no: FIG-1

PROJECT NO.	11881	PROJECT	Verona, NJ	TEST PIT NO.	TP-1
LOCATION	SEE FIGURE 1	APPROX. ELEV.	527.5±	INSPECTED BY	JM
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	5/26/2021

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3± Inch Concrete Slab over 2± Inch Gray Dense Graded Aggregate	
1	Red-brown coarse to fine SAND, some coarse to fine Gravel, little Silt, with few Cobbles and Roots in upper 6± inches	Medium Dense
5	Red-brown coarse to fine Sand, and coarse to fine Gravel, little Silt, with Cobbles W.C. = 8.8% (-200) = 16.3%	Dense
9	Red-brown coarse to fine Sand, and coarse to fine Gravel, little Silt, with Cobbles, and Boulders	Very Dense
12	TEST PIT COMPLETED AT 12± FEET DUE TO MACHINE REACH	

SESI CONSULTING ENGINEERS

Fig. 2

PROJECT NO.	11881	PROJECT	Verona, NJ	TEST PIT NO.	TP-2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	527±	INSPECTED BY	JM
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	5/26/2021

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Fill: Brown-gray coarse to fine GRAVEL, and coarse to fine Sand, trace Silt, with Cobbles, Sticks, and pockets of Topsoil	Loose
1	W.C. = 10.4% (-200) = 5.5%	
2		
3		
4	Bottom of Pool at 4± Feet	
5	TEST PIT COMPLETED AT 4± FEET DUE TO MACHINE REFUSAL ON CONCRETE POOL BOTTOM	
6		
7		
8		
9		
10		
11		
12		
13		
14		

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Fig. 3

PROJECT NO.	11881	PROJECT	Verona, NJ	TEST PIT NO.	TP-3
LOCATION	SEE FIGURE 1	APPROX. ELEV.	526±	INSPECTED BY	JM
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	5/26/2021

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inch Concrete Slab over 2± Inch Gray Dense Graded Aggregate	
1	Fill: Red-brown coarse to fine SAND, some coarse to fine Gravel, some Silt, with Cobbles, Boulders, with Concrete Pieces and Roots in top 6± inches	Medium Dense to Dense
2	W.C. = 15.4% (-200) = 23.9%	
3		
4		
5	Red-brown corase to fine SAND, some coarse to fine Gravel, some Silt, with Cobbles and Boulders	Dense
6		
7		
8		
9		
10	Red-brown coarse to fine Sand, and coarse to fine Gravel, some Silt, with Cobbles and Boulders	Very Dense
11		
12	TEST PIT COMPLETED AT 11± FEET DUE TO MACHINE REACH	
13		
14		

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Fig. 4

PROJECT NO.	11881	PROJECT	Verona, NJ	TEST PIT NO.	TP-4
LOCATION	SEE FIGURE 1	APPROX. ELEV.	526.5±	INSPECTED BY	JM
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	5/26/2021

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3± Inch Concrete Slab over 2± Inch Gray Dense Graded Aggregate	
1	Fill: Red-brown coarse to fine SAND, some coarse to fine Gravel, some Silt, with Cobbles	Medium Dense
2		
3		
4	Red-brown corase to fine SAND, some coarse to fine Gravel, some Silt, with Cobbles and Boulders	Medium Dense to Dense
5		
6		
7		
8		
9		
10		
11		
12		
13	TEST PIT COMPLETED AT 13± FEET DUE TO MACHINE REACH	
14		

Note: Decomposed 2x4's within 2-Inch DGA layer

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Fig. 5

PROJECT NO.	11881	PROJECT	Verona, NJ	TEST PIT NO.	TP-5
LOCATION	SEE FIGURE 1	APPROX. ELEV.	526.5±	INSPECTED BY	JM
WATER OBSERVATION	Groundwater at 5'±			DATE EXCAVATED	5/26/2021

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Fill: Brown-gray coarse to fine GRAVEL, and coarse to fine Sand, trace Silt, with Cobbles and Boulders	Loose to Medium Dense
1		
2		
3		
4		
5		
6		
7	Bottom of Pool at 8± Feet	
8	Red-brown coarse to fine SAND, some coarse to fine Gravel, little Silt, with Cobbles	Medium Dense to Dense
9		
10	TEST PIT COMPLETED AT 9.5± FEET BOTTOM OF POOL BROKEN UP, STANDING WATER AT 5± FEET	
11		
12		
13		
14		

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Fig. 6


12/2002
Image © 2021 State of New Jersey
Google Earth
1985
Imagery Date: 12/31/2001 40°50'21.98" N 74°15'12.42" W elev 539 ft eye alt 879 ft