

JOHN H. ALLGAIR, PE, PP, LS (1983-2001)  
DAVID J. SAMUEL, PE, PP, CME  
JOHN J. STEFANI, PE, LS, PP, CME  
JAY B. CORNELL, PE, PP, CME  
MICHAEL J. McCLELLAND, PE, PP, CME  
GREGORY R. VALES, PE, PP, CME



**SEE ATTACHED  
PERMIT CONDITIONS  
PERMIT EXPIRES**

**MAR 24 2025**

BRUCE M. KOCH, PE, PP, CME  
LOUIS J. PLOSKONKA, PE, CME  
TREVOR J. TAYLOR, PE, PP, CME  
BEHRAM TURAN, PE, LSRP  
LAURA J. NEUMANN, PE, PP  
DOUGLAS ROHMEYER, PE, CFM, CME  
ROBERT J. RUSSO, PE, PP, CME  
JOHN J. HESS, PE, PP, CME  
KEITH CHIARAVALLO, PE, CME

Date: March 24, 2023

Date of Plan: January 24, 2023

Revision Date of Plan: March 23, 2023

**Sent Via Electronic Mail**

**Matthew J. Olejarski**  
Principal Registered Environmental Health Specialist  
Gloucester County Department of Health and Human Services  
204 East Holly Ave  
Sewell, NJ 08080

RE: Municipal Code: 11

Block(s) 5601 Lot(s) 16 Address: 3132 South Black Horse Pike, Williamstown, NJ 08094

Dear Mr. Olejarski:


Please be advised that submitted septic design for the above referenced block(s) and lot(s) have been reviewed by this office. Based on this review, we recommend the following actions:

APPROVAL	DISAPPROVAL/RESUBMIT FOR REVIEW
<b>X</b>	

This application is subject to all other outside agency approvals were applicable. If disapproval/resubmit for review is noted above, reasons for same are listed below:

Very truly yours,

**CME Associates**

  
03/24/2023  
Edward F. D'Armiento, PE, CME, CFM Date  
Consulting Engineer

cc: Shane Papson - Applicant  
South Jersey Engineers, LLC - Applicant's Engineer  
Monroe Township



## ADDITIONAL SEPTIC SYSTEM PERMIT REQUIREMENTS Monroe Twp., Block 5601, Lot 16

1. Contractor to confirm positive drainage away from field prior to construction.
2. Consulting & Municipal Engineers (CME) to inspect the excavation of the disposal area to a depth of 9.50 – 9.75 feet (elevation 89.25) from existing grade, upslope elevation 98.75 – 99.00.
3. Excavation must be 30 x 37 feet and disposal bed must be 30 x 37 feet.
4. Engineer must inspect and certify compaction and elevation of suitable fill material to elevation 95.50.
5. Installer shall cease work if he is unable to install the disposal field with LOI at elevation 95.50 and contact the design engineer and CME.
6. CME to inspect the backfill prior to placing stone.
7. CME to inspect the bedding prior to placing topsoil.
8. CME to inspect the final grade.
9. Engineer must certify suitability of fill material by appropriate testing.
10. Please provide a copy of a water tightness test of the septic tank in accordance with the regulations
11. No parking or driving with the disposal area.
12. Trees within 10 feet of the disposal area to be removed prior to the system installation, and if any tree roots of 1" or greater are observed during the excavation, that tree shall also be removed
13. Connecting pipes must be PVC (ASTM D 2665)—schedule 40, SDR-21 or SDR-26.
14. Connecting pipes going under a driveway shall be PVC Schedule 80 or equivalent
15. Distribution pipes for system must be PVC ASTM D-2729, D-3033 or D-3034; Polyethylene, straight wall (ASTM F-810); Styrene-Rubber (ASTM D-2852, D-3298); ABS (ASTM D-2751)
16. All laterals must be directly connected directly to the distribution box.
17. No soil from the excavation may be reused for backfill.
18. No irrigation heads permitted on or within 10 feet of the disposal field.
19. Minimum 6" Effluent filter must be utilized with handle with adequate extension to allow access for cleaning through manhole
20. Design not approved for garbage disposal system
21. Design not approved for an ejector pump
22. Design not approved for expansion attic
23. 48-Hour advanced notice required for scheduling all on-site inspections with CME
24. Existing system to be pumped and properly abandoned, please provide pumping receipts
25. Receipts to be provided for all material installed. (sand and stone). A gradation sheet must be submitted to CME prior to the installation of any stone. Per N.J.A.C. 7:9A – 10.3 (e) 2, the stone gradation must meet the requirements of AASHTO size #3, #4, or #24.
26. A permanent, non-corrosive marker a minimum of six square inches in size shall be attached to the manhole cover or riser immediately below the cover. The marker shall include the administrative authority under which the system was installed, the date of installation, the type of system, the total design criteria in gallons per day, and the municipality, block, and lot number.

PLEASE NOTE: THE APPLICANT IS RESPONSIBLE FOR OBTAINING ALL OTHER REQUIRED FEDERAL, STATE OR LOCAL APPROVALS PRIOR TO THE COMMENCEMENT OF WORK UNDER THIS APPROVAL, INCLUDING BUT NOT LIMITED TO, NJDEP PERMITS TO CONDUCT ACTIVITIES IN FRESHWATER WETLANDS, FRESHWATER WETLAND TRANSITION AREAS, OR FLOOD PLAIN JURISDICTIONS. FAILURE TO OBTAIN THESE PERMITS PRIOR TO CONDUCTING REGULATED ACTIVITIES WITHIN THESE AREAS MAY RESULT IN REMOVAL OF THE SYSTEM AND OR THE ASSESSMENT OF SIGNIFICANT CIVIL PENALTIES.

APPLICANT SHALL NOTIFY CME REGARDING A MODIFICATION OF PLANS OR SPECIFICATIONS FOR THE SUBSURFACE DISPOSAL SYSTEM APPROVED HEREIN; ANY MODIFICATION TO THE PLANS OR SPECIFICATIONS MADE WITHOUT PRIOR APPROVAL FROM CME SHALL RENDER THIS APPROVAL NULL AND VOID, AND REQUIRE A NEW APPLICATION BE SUBMITTED AND APPROVED BY CME BEFORE WORK MAY RESUME

IF IT IS NOT POSSIBLE TO BRING THE SYSTEM INTO CONFORMANCE WITH 7:9A, THE SYSTEM SHALL BE BROUGHT AS CLOSE TO CONFORMANCE WITH THE REQUIREMENTS OF 7:9A AS POSSIBLE, PROVIDED THE SYSTEM AS IMPROVED RESULTS IN A DISCHARGE THAT IS PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT.

**GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE  
SEWAGE DISPOSAL SYSTEM**

APPLICATION SHALL BE SUBMITTED ELECTRONICALLY TO CME FOR REVIEW BY DESIGN ENGINEER  
PAYMENT SHALL BE SUBMITTED TO GCHD (CHECK OR MONEY ORDER ONLY)  
ONSITE INSPECTIONS MUST BE SCHEDULED VIA EMAIL: GCHD@CMEUSA1.COM

MUNICIPALITY MONROE TOWNSHIP

**Form 1-General Information**

**1. Type of Permit Needed**

- New Construction (\$350.00)
- Alteration (\$300.00)  Expansion/Change of use  Malfunction  No Expansion/Change of use
- Repair In-Kind (Engineer required) (\$135.00)
- Revision (\$175.00)
- Permit Renewal (\$100.00)

- Garbage Disposal Incorporated: YES /  NO
- Ejector Pump Incorporated: YES /  NO Convenience use YES /  NO
- Expansion Attic Incorporated: YES /  NO
- In-Law Suite Incorporated: YES /  NO Attached / Detached

Property for Sale: YES / NO Settlement Date: \_\_\_\_\_

**2. Location of Project:** Municipality MONROE TOWNSHIP Block 5601 Lot 16  
Street Address 3132 SOUTH BLACK HORSE PIKE, WILLIAMSTOWN, NJ Zip 08094

**3. Name of Applicant (print)** SHANE PAPSON  
Present Address: 640 WEST PINEY HOLLOW, WILLIAMSTOWN, NJ 08094  
Applicant's Phone Number: \_\_\_\_\_  
Applicant's Agent Name and \_\_\_\_\_  
Applicant's Email address: \_\_\_\_\_

**SEE ATTACHED  
PERMIT CONDITIONS  
PERMIT EXPIRES**

**MAR 24 2025**

**4. Type of Facility:**

Residential: Number of Dwelling Units: 1 Number of Bedrooms 4 Duplex: Yes \_\_\_\_\_ No   
Commercial/Institutional: Specify Type of Establishment: N/A

**5. Type of Wastes to be discharged:**

Sanitary Sewage  Industrial Waste \_\_\_\_\_ (NJDEP Approval required)

Other-Specify Type: \_\_\_\_\_

**6. Water Supply:**  Individual \_\_\_\_\_ Municipal If individual, will existing well be utilized? Yes \_\_\_\_\_ No

**7. Other Approvals/Certification/Waivers/Exemptions (Attach to application)**

Pinelands Commission: Provide certificate of filing  
Municipal MUA Waiver/Municipal Ordinance Review Letter/Municipal Stamp on plans/Convenience Basement Bathroom  
NJDEP-Bureau of Flood Plain Management  
Other-Specify: \_\_\_\_\_

**8. I hereby certify that the information furnished on Form 1 of this application is true. I am aware that false swearing is a crime in this State and subject to prosecution.**

Signature of Applicant [Signature] Date 1-19-2023

**FOR AGENCY USE ONLY**

Application Denied-Reason for Denial: \_\_\_\_\_

Application Approved \_\_\_\_\_ Application Approved Subject to Approval by: \_\_\_\_\_

Date of Action 03/24/2023 Signature [Signature]

REV. DATE 8-14-20 - REV. AS PER COUNTY H.D. COMMENTS

REV. DATE 2-16-23 - REV. AS PER COUNTY H.D. COMMENTS

REV. DATE 2-28-23 - REV. AS PER COUNTY H.D. COMMENTS

REV. DATE 3-23-23 - REV. AS PER COUNTY H.D. COMMENTS

**GLOUCESTER COUNTY DEPARTMENT OF HEALTH**  
**APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE**  
**SEWAGE DISPOSAL SYSTEM**

APPLICATION SHALL BE SUBMITTED ELECTRONICALLY TO CME FOR REVIEW BY DESIGN ENGINEER  
PAYMENT SHALL BE SUBMITTED TO GCHD (CHECK OR MONEY ORDER ONLY)  
ONSITE INSPECTIONS MUST BE SCHEDULED VIA EMAIL: GCHD@CMEUSA1.COM

MUNICIPALITY MONROE TOWNSHIP

Form 2a-General Site Evaluation Data                      Block 5601 Lot 16

1. Name of Site Evaluator (print): SOUTH JERSEY ENGINEERS, L.L.C.

2. Business Address: P.O. BOX 1406, VOORHEES, NJ 08043

3. Business Phone: (856) 651-9050

4. Special Site Limitations Identified (Check appropriate categories):  
Flood Plains \_\_\_\_\_ Bedrock Outcrop \_\_\_\_\_ Wetlands \_\_\_\_\_  
Excessively Stony \_\_\_\_\_ Disturbed Ground \_\_\_\_\_ Sink Holes \_\_\_\_\_  
Sand Dunes \_\_\_\_\_ Steep Slopes \_\_\_\_\_

X Other-Specify EXISTING CONDITIONS/IMPROVEMENTS

5. Soil Logs-Enter on Form 2b-Use one sheet for each soil log.

6. Considerations Relating to Disturbed Ground:

a) Type of Disturbance (Check appropriate categories)  
Filled Area \_\_\_\_\_ Excavated Area \_\_\_\_\_ Re-Graded Area \_\_\_\_\_  
Subsurface Drains \_\_\_\_\_ Other-Specify \_\_\_\_\_

b) Pre-existing Natural Ground Surface  
Elevation Relative to Existing Ground Surface \_\_\_\_\_ Method of Identification \_\_\_\_\_

c) Suitability of Disturbed Ground  
Unsuitable: Objects Subject to Disintegration or Change in Volume  
Excessively Coarse  
Proctor Test performed-% Standard Proctor Density = \_\_\_\_\_

7. Hydraulic Head Test:  
a) Hydraulically Restrictive Horizon: Depth Top to Bottom \_\_\_\_\_  
b) Piezometer A: Depth to Bottom \_\_\_\_\_ Depth of Water Level (24 hrs.) \_\_\_\_\_ Depth of Water Level (24 hrs.) \_\_\_\_\_  
c) Piezometer B: Depth to Bottom \_\_\_\_\_

d) Witnessed by \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

8. Attachments (Check items included):

- X Site Plan
- X Key Map Showing Location of Site on U.S.G.S. Quadrangle or Another Accurate Map
- X Key Map Showing Location of Site on U.S.D.A. Soil Survey Map
- Other-Specify \_\_\_\_\_

9. I hereby certify that the information furnished on Form 2a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is in violation of the Water Pollution Control Act (N.J.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator [Signature] Date 1-24-23

Signature of Professional Engineer [Signature] License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
 APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
 AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY Monroe Township ( 3132 South Blackhorse Pike )

Form 2b – Soil Log and Interpretation

Block 5601 Lot 16

1. Log Number TP#1 Method (Check One): xx Profile Pit \_\_\_\_\_ Boring \_\_\_\_\_

2. Soil Log Witnessed by: Waived

Depth (inches) Top-Bottom	Munsell Color Name and Symbol:	Estimated Textural Class; Estimated Volume % Coarse Fragment, if present; Structure; Moist or Dry Consistence; Mottling-Abundance, Size and Contrast, if present
0"-10"	brown (10yr 5/3)	Loamy Sand; sub-angular blocky, friable
10"-30"	strong brown (7.5yr 5/8)	fine Sandy Loam; sub-angular blocky, friable
30"-70"	strong brown (7.5yr 5/8)	Sandy Clay Loam; sub-angular blocky, friable
70"-100"	yellowish red (5yr 5/8)	medium to fine Sandy Loam; sub-angular blocky, friable
100"-133"	yellowish brown (10yr 5/6)	fine to very fine Sandy Loam; sub-angular blocky, friable

3. Ground Water Observations:

XXX Seepage – Indicate Depth NE  
 \_\_\_\_\_ Pit/ Boring Flooded—Depth after \_\_\_\_\_ Hours \_\_\_\_\_

4. Soil Limiting Zones (Check Appropriate Categories):

\_\_\_\_\_ Fractured Rock Substratum - Depth to Top \_\_\_\_\_  
 \_\_\_\_\_ Massive Rock Substratum – Depth to Top \_\_\_\_\_  
 \_\_\_\_\_ Excessively Coarse Horizon – Depth to Bottom \_\_\_\_\_  
 \_\_\_\_\_ Excessively Coarse Substratum – Depth to Top \_\_\_\_\_  
 \_\_\_\_\_ Hydraulically Restrictive Horizon – Depth Top to Bottom \_\_\_\_\_  
 \_\_\_\_\_ Hydraulically Restrictive Substratum – Depth to Top \_\_\_\_\_  
 \_\_\_\_\_ Perched Zone of Saturation – Depth Top to Bottom \_\_\_\_\_  
XXX Regional Zone of Saturation – Depth to Top \_\_\_\_\_ NE

5. Soil Suitability Classification: I

6. I hereby certify that the information furnished on form 2b of this application is true and accurate. I am aware that falsification of data is a violation of the water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:11-8.

Signature of Site Evaluator \_\_\_\_\_ [Signature] Date 3/12/20  
 Signature of Professional Engineer \_\_\_\_\_ [Signature] License # GE28106

**"SOIL LOGS ARE FOR SEPTIC SYSTEM USE ONLY AND ARE NOT TO BE USED FOR ANY OTHER PURPOSE"**

**GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM**

MUNICIPALITY Monroe Township ( 3132 South Blackhorse Pike )

Form 2b – Soil Log and Interpretation

Block 5601 Lot 16

1. Log Number TP#2 Method (Check One): xx Profile Pit \_\_\_\_\_ Boring \_\_\_\_\_

2. Soil Log Witnessed by: Waived

Depth (inches) Munsel Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse Fragment, if present; Structure; Top-Bottom Moist or Dry Consistence; Mottling-Abundance, Size and Contrast, if present

0"-13"	brown	(10yr 5/3)	Loamy Sand; sub-angular blocky, friable
13"-80"	strong brown	(7.5yr 5/8)	fine Sandy Loam; sub-angular blocky, friable
80"-112"	strong brown	(7.5yr 5/8)	Sandy Clay Loam; sub-angular blocky, friable
112"-100"	yellowish red	(5yr 5/8)	medium to fine Sandy Loam / Loamy Sand; sub-angular blocky, friable
100"-133"	yellowish brown	(10yr 5/6)	medium to fine Loamy Sand / Sand; single grain, loose, Gravel 40%

3. Ground Water Observations:

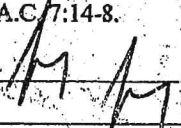
XXX Seepage – Indicate Depth NE  
Pit/ Boring Flooded—Depth after \_\_\_\_\_ Hours \_\_\_\_\_

4. Soil Limiting Zones (Check Appropriate Categories):

\_\_\_\_ Fractured Rock Substratum- Depth to Top \_\_\_\_\_  
 \_\_\_\_ Massive Rock Substratum – Depth to Top \_\_\_\_\_  
 \_\_\_\_ Excessively Coarse Horizon – Depth to Bottom \_\_\_\_\_  
 \_\_\_\_ Excessively Course Substratum – Depth to Top \_\_\_\_\_  
 \_\_\_\_ Hydraulically Restrictive Horizon – Depth Top to Bottom \_\_\_\_\_  
 \_\_\_\_ Hydraulically Restrictive Substratum – Depth to Top \_\_\_\_\_  
 \_\_\_\_ Perched Zone of Saturation – Depth Top to Bottom \_\_\_\_\_  
XXX Regional Zone of Saturation – Depth to Top \_\_\_\_\_ NE

5. Soil Suitability Classification: I

6. I hereby certify that the information furnished on form 2b of this application is true and accurate. I am aware that falsification of data is a violation of the water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator  Date 3/12/20  
 Signature of Professional Engineer \_\_\_\_\_ License # GE28106

**“SOIL LOGS ARE FOR SEPTIC SYSTEM USE ONLY AND ARE NOT TO BE USED FOR ANY OTHER PURPOSE”**

**GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE  
SEWAGE DISPOSAL SYSTEM**

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PAYMENT SHALL BE SUBMITTED TO GCHD (CHECK OR MONEY ORDER ONLY)  
ONSITE INSPECTIONS MUST BE SCHEDULED VIA EMAIL: GCHD@CMEUSA1.COM

MUNICIPALITY MONROE TOWNSHIP

Form 3a. Soil Permeability Data                      Lot 16                      Block 5601

Assign a number for each test and a letter for each test replicate. Show test data and calculations on Form 3b, 3c, 3d, 3e, 3f or 3g. Use one sheet for each separate test or test replicate.

1. Summary of Date - Enter date for each test replicate on a separate line.

Test Type of Test	Replicate (number)	Depth (letter)	(inches)	Results*
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**\* SELECT FILL TO BE TESTED FOR PERMEABILITY = 6-20 IN/HR WHEN PROPERLY COMPACTED IN-PLACE \***

TUBE	1	A/B	TP1 (68")	K2
TUBE	1	A/B	TP1 (116")	K3
TUBE	1	A/B	TP2 (83")	K2
TUBE	1	A/B	TP2 (121")	K4

\*For tube permeameter, pit-bailing and piezometer tests report results in inches per hour. For Soil permeability class rating give soil permeability class number. For percolation test report in minutes per inch. For basin flooding test report result as positive if basin drains completely within 24 hours after second filling, negative otherwise.

2. Design Permeability/Percolation Rate: Specify Test Number 6-20 IN/HR (SELECT FILL)  
Average of Test Replicates    Single Replicate  
Slowest of Replicates

3. Type of Limiting Zone Identified    Test Number

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Attachments (Check items included):

- X Form 3b - Tube Permeameter Test Data - Number of Sheets 8
- Form 3c - Soil Permeability Class Rating Test Data - Number of Sheets
- Form 3d - Percolation Test Data - Number of Sheets
- Form 3e - Pit-Bailing Test Data - Number of Sheets
- Form 3f - Piezometer Test Data - Number of Sheets
- Form 3g - Basin Flooding Test Data - Number of Sheets

5. I hereby certify that the information furnished on Form 3a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator \_\_\_\_\_  
Date 1-24-23

Signature of Professional Engineer \_\_\_\_\_ License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY MONROE

Form 3b. Tube Permeameter Test Data

1. Test Number 1      Replicate Letter A      Date Collected 3/12/2020

2. Material Tested  Fill X Test in Native Soil - Indicate Depth TP1 (68")

3. Type of Sample  Undisturbed X Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm 1.905  
Length of Sample, in inches 3

5. Bulk Density Determination (Disturbed Samples Only):  
Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube) 150.89  
Sample Volume (L x 2.54 cm/inch x 3.14R<sup>2</sup>), cc 86.83  
Bulk Density (Sample Wt./Sample Volume), grams/cc 1.74

6. Standpipe Used:  No  Yes  
Indicate internal Radius, cm \_\_\_\_\_

7. Height of water Level above Rim of Test Basin in inches:  
At the Beginning of Each Test Interval, H1 3.0  
At the End of Each Test Interval, H2 2.0

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	57.24	57.41
0.00	57.30	57.49
0.00	57.57	57.95

9. Calculation of Permeability:

$K, (in/hr) = 60 \text{ min/hr} \times r^2/R^2 \times L(in)/T(min) \times \ln(H1/H2)$

$k = 60 \text{ min/hr}$	$\times$	$-----/----- \times 3/$	57.95	$\times \ln(3/2)$
$k = 1.26$				

10. Defects in the Sample (Check appropriate items):

None  Cracks  Worm Channels  Root Channels

Soil/Tube Contact  Large Gravel  Large Roots

Dry Soil  Smearing  Compaction

Other—Specify \_\_\_\_\_

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Date 5/14/2020

Signature of Professional Engineer License # GE28106



GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY MONROE

Form 3b. Tube Permeameter Test Data

1. Test Number 1 Replicate Letter B Date Collected 3/12/2020  
 2. Material Tested  Fill X Test in Native Soil - Indicate Depth TP1 (68")  
 3. Type of Sample  Undisturbed X Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm 1.905  
 Length of Sample, in inches 3

5. Bulk Density Determination (Disturbed Samples Only):  
 Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube) 151.68  
 Sample Volume (L x 2.54 cm/inch x 3.14R<sup>2</sup>), cc 86.83  
 Bulk Density (Sample Wt./Sample Volume), grams/cc 1.75

6. Standpipe Used:  x  No  Yes  
 Indicate internal Radius, cm \_\_\_\_\_

7. Height of water Level above Rim of Test Basin in inches:  
 At the Beginning of Each Test Interval, H1 3.0  
 At the End of Each Test Interval, H2 2.0

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	66.10	66.16
0.00	66.33	66.55
0.00	66.36	66.60

9. Calculation of Permeability:

$$K, (in/hr) = 60 \text{ min/hr} \times r^2/R^2 \times L(in)/T(min) \times \ln(H1/H2)$$

$$k = 60 \text{ min/hr} \times \frac{1}{9} \times \frac{3}{66.60} \times \ln(3/2)$$

$$k = 1.10$$

10. Defects in the Sample (Check appropriate items):  
 None  Cracks  Worm Channels  Root Channels  
 Soil/Tube Contact  Large Gravel  Large Roots  
 Dry Soil  Smearing  Compaction  
 Other—Specify \_\_\_\_\_

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-6.

Signature of Site Evaluator 
  
 Signature of Professional Engineer

Date 5/14/2020  
 License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY MONROE

Form 3b. Tube Permeameter Test Data

1. Test Number 1      Replicate Letter A      Date Collected 3/12/2020

2. Material Tested   Fill X Test in Native Soil - Indicate Depth TP1 (116")

3. Type of Sample   Undisturbed X Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm 1.905  
Length of Sample, in inches 3

5. Bulk Density Determination (Disturbed Samples Only):

Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube)	<span style="border: 1px solid black; padding: 2px;">149.07</span>
Sample Volume (L x 2.54 cm/inch x 3.14R <sup>2</sup> ), cc	<span style="border: 1px solid black; padding: 2px;">86.83</span>
Bulk Density (Sample Wt./Sample Volume), grams/cc	<span style="border: 1px solid black; padding: 2px;">1.72</span>

6. Standpipe Used:  No  Yes  
Indicate internal Radius, cm  

7. Height of water Level above Rim of Test Basin in inches:  
At the Beginning of Each Test Interval, H1 3.0  
At the End of Each Test Interval, H2 2.0

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	15.33	15.54
0.00	15.45	15.75
0.00	15.57	15.95

9. Calculation of Permeability:

$$K, (in/hr) = 60 \text{ min/hr} \times r^2/R^2 \times L(in)/T(min) \times \ln(H1/H2)$$

k = 60 min/hr	x	-----	x 3/	15.95	x ln(3/2)
<span style="border: 1px solid black; padding: 2px;">k = 4.58</span>					

10. Defects in the Sample (Check appropriate items):

None     Cracks     Worm Channels     Root Channels

Soil/Tube Contact     Large Gravel     Large Roots

Dry Soil     Smearing     Compaction

Other—Specify  

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14.8.

Signature of Site Evaluator        Date 5/14/2020

Signature of Professional Engineer        License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY MONROE

Form 3b: Tube Permeameter Test Data

1. Test Number 1 Replicate Letter B Date Collected 3/12/2020

2. Material Tested  Fill X Test in Native Soil - Indicate Depth TP1 (116")

3. Type of Sample  Undisturbed X Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm 1.905  
Length of Sample, in inches 3

5. Bulk Density Determination (Disturbed Samples Only):  
Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube) 148.56  
Sample Volume (L x 2.54 cm/inch x 3.14R<sup>2</sup>), cc 86.83  
Bulk Density (Sample Wt./Sample Volume), grams/cc 1.71

6. Standpipe Used:  No  Yes  
Indicate internal Radius, cm \_\_\_\_\_

7. Height of water Level above Rim of Test Basin in inches:  
At the Beginning of Each Test Interval, H1 3.0  
At the End of Each Test Interval, H2 2.0

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	19.02	19.04
0.00	19.29	19.48
0.00	19.53	19.88

9. Calculation of Permeability:

$$K, (in/hr) = 60 \text{ min/hr} \times r^2/R^2 \times L(in)/T(min) \times \ln(H1/H2)$$

$$k = 60 \text{ min/hr} \times \frac{r^2}{R^2} \times \frac{L}{T} \times \ln\left(\frac{H1}{H2}\right)$$

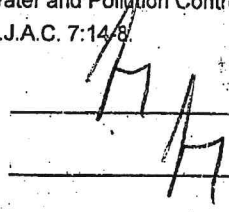
k = 3.67

10. Defects in the Sample (Check appropriate items):

- None  Cracks  Worm Channels  Root Channels  
 Soil/Tube Contact  Large Gravel  Large Roots  
 Dry Soil  Smearing  Compaction  
 Other—Specify \_\_\_\_\_

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator



Date 5/14/2020

Signature of Professional Engineer

License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY MONROE

Form 3b. Tube Permeameter Test Data

1. Test Number 1 Replicate Letter A Date Collected 3/12/2020  
 2. Material Tested  Fill X Test in Native Soil - Indicate Depth TP2 (63")

3. Type of Sample  Undisturbed X Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm 1.905  
 Length of Sample, in inches 3

5. Bulk Density Determination (Disturbed Samples Only):  
 Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube) 151.53  
 Sample Volume (L x 2.54 cm/inch x 3.14R<sup>2</sup>), cc 86.83  
 Bulk Density (Sample Wt./Sample Volume), grams/cc 1.75

6. Standpipe Used:  No  Yes  
 Indicate internal Radius, cm \_\_\_\_\_

7. Height of water Level above Rim of Test Basin in inches:  
 At the Beginning of Each Test Interval, H1 3.0  
 At the End of Each Test Interval, H2 2.0

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	43.08	43.13
0.00	43.24	43.39
0.00	43.45	43.75

9. Calculation of Permeability:

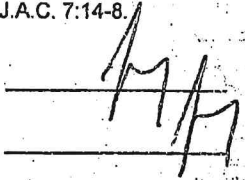
$$K, (in/hr) = 60 \text{ min/hr} \times r^2/R^2 \times L(in)/T(\text{min}) \times \ln(H1/H2)$$

k = 60 min/hr	x	-----/-----	x 3/	43.75	x ln(3/2)
k = 1.67					

10. Defects in the Sample (Check appropriate items):  
 None  Cracks  Worm Channels  Root Channels  
 Soil/Tube Contact  Large Gravel  Large Roots  
 Dry Soil  Smearing  Compaction  
 Other---Specify \_\_\_\_\_

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator



Date 5/14/2020

Signature of Professional Engineer

License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY MONROE

Form 3b. Tube Permeameter Test Data

1. Test Number 1 Replicate Letter B Date Collected 3/12/2020

2. Material Tested  Fill X Test in Native Soil - Indicate Depth TP2 (83")

3. Type of Sample  Undisturbed X Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm 1.905  
Length of Sample, in inches 3

5. Bulk Density Determination (Disturbed Samples Only):  
Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube) 147.77  
Sample Volume (L x 2.54 cm/inch x 3.14R<sup>2</sup>), cc 86.83  
Bulk Density (Sample Wt./Sample Volume), grams/cc 1.70

6. Standpipe Used:  No  Yes  
Indicate internal Radius, cm \_\_\_\_\_

7. Height of water Level above Rim of Test Basin in inches:  
At the Beginning of Each Test Interval, H1 3.0  
At the End of Each Test Interval, H2 2.0

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	51.38	51.63
0.00	51.45	51.74
0.00	52.08	52.13

9. Calculation of Permeability:

$K, (in/hr) = 60 \text{ min/hr} \times r^2/R^2 \times L(in)/T(min) \times \ln(H1/H2)$

$k = 60 \text{ min/hr}$	$\times$	$\frac{r^2}{R^2}$	$\times$	$\frac{L}{T}$	$\times$	$\ln(3/2)$
k = 1.40				52.13		

10. Defects in the Sample (Check appropriate items):  
 None  Cracks  Worm Channels  Root Channels  
 Soil/Tube Contact  Large Gravel  Large Roots  
 Dry Soil  Smearing  Compaction  
 Other--Specify \_\_\_\_\_

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator  Date 5/14/2020

Signature of Professional Engineer  License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY MONROE

Form 3b Tube Permeameter Test Data

1. Test Number 1 Replicate Letter A Date Collected 3/12/2020

2. Material Tested  Fill X Test in Native Soil - Indicate Depth TP2 (121")

3. Type of Sample  Undisturbed X Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm 1.905  
Length of Sample, in inches 3

5. Bulk Density Determination (Disturbed Samples Only):  
Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube) 145.63  
Sample Volume (L x 2.54 cm/inch x 3.14R<sup>2</sup>), cc 86.83  
Bulk Density (Sample Wt./Sample Volume), grams/cc 1.68

6. Standpipe Used:  No  Yes  
Indicate internal Radius, cm

7. Height of water Level above Rim of Test Basin in inches:  
At the Beginning of Each Test Interval, H1 3.0  
At the End of Each Test Interval, H2 2.0

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	6.39	6.64
0.00	6.48	6.79
0.00	7.05	7.08

9. Calculation of Permeability:

$k, (\text{in/hr}) = 60 \text{ min/hr} \times r^2/R^2 \times L(\text{in})/T(\text{min}) \times \ln(H1/H2)$


$k = 60 \text{ min/hr} \times \frac{\text{---}}{\text{---}} \times 3 / 7.08 \times \ln(3/2)$

$k = 10.30$

10. Defects in the Sample (Check appropriate items):  
 None  Cracks  Worm Channels  Root Channels  
 Soil/Tube Contact  Large Gravel  Large Roots  
 Dry Soil  Smearing  Compaction  
 Other---Specify \_\_\_\_\_

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator



Date 5/14/2020

Signature of Professional Engineer

License # GE28106

GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR  
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY

Form 3b Tube Permeameter Test Data

1. Test Number  Replicate Letter  Date Collected   
 2. Material Tested  Fill  Test in Native Soil - Indicate Depth   
 3. Type of Sample  Undisturbed  Disturbed

4. Sample Dimensions Inside Radius of Sample Tube, R, in cm   
 Length of Sample, in inches

5. Bulk Density Determination (Disturbed Samples Only):  
 Sample Weight (Wt. Tube Containing Sample - Wt. Empty Tube)   
 Sample Volume (L x 2.54 cm/inch x 3.14R<sup>2</sup>), cc   
 Bulk Density (Sample Wt./Sample Volume), grams/cc

6. Standpipe Used:  No  Yes  
 Indicate Internal Radius, cm \_\_\_\_\_

7. Height of water Level above Rim of Test Basin in inches:  
 At the Beginning of Each Test Interval, H1   
 At the End of Each Test Interval, H2

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1 (min.sec)	Time, Start of Test Interval, T1 (min.sec)	Length of Test Interval, T, (min)
0.00	6.19	6.31
0.00	6.22	6.36
0.00	6.27	6.44

9. Calculation of Permeability:

$$K, (\text{in/hr}) = 60 \text{ min/hr} \times r^2/R^2 \times L(\text{in})/T(\text{min}) \times \ln(H1/H2)$$

$k = 60 \text{ min/hr}$	$\times$	$\frac{r^2}{R^2}$	$\times$	$\frac{L(\text{in})}{T(\text{min})}$	$\times$	$\ln(H1/H2)$
$k = 11.33$				$6.44$		$\times \ln(3/2)$

10. Defects in the Sample (Check appropriate items):  
 None  Cracks  Worm Channels  Root Channels  
 Soil/Tube Contact  Large Gravel  Large Roots  
 Dry Soil  Smearing  Compaction  
 Other—Specify \_\_\_\_\_

11. I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water and Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator \_\_\_\_\_  
 Signature of Professional Engineer \_\_\_\_\_

Date   
 License #

**GLOUCESTER COUNTY DEPARTMENT OF HEALTH  
APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE  
SEWAGE DISPOSAL SYSTEM**

APPLICATION SHALL BE SUBMITTED ELECTRONICALLY TO CME FOR REVIEW BY DESIGN ENGINEER  
PAYMENT SHALL BE SUBMITTED TO GCHD (CHECK OR MONEY ORDER ONLY)  
ONSITE INSPECTIONS MUST BE SCHEDULED VIA EMAIL: GCHD@CMEUSA1.COM

MUNICIPALITY MONROE TOWNSHIP

Form 4. General Design Data

1. Volume of Sanitary Sewage, gallons per day, 680 GAL/DAY (200 gallons for first bedroom, 150 each additional)

X Residential: No. of Dwelling Units 1 Total No. of Bedrooms 4

X Commercial/Industrial - Indicate type of establishment and show method of calculation.

*OFFICE SPACE IN POLE BARN IS 240 SQUARE FOOT (WITH 1 EMPLOYEE)  
240 SF X 0.125 = 30 GAL/DAY + 650 GAL/DAY = 680 GAL/DAY*

2. Alterations or Repairs

a) Reason for Alteration or Repair (Check appropriate categories):

Expansion or Change in Use \_\_\_\_\_ Upgrade Existing Facilities \_\_\_\_\_

X Correct Malfunctioning System \_\_\_\_\_ Other -- Specify \_\_\_\_\_

b)  Describe Nature of Alteration or Repairs: NEW ISDS PER NJAC 7:9A

3. System Components:

**NEW 1000 GAL SEPTIC TANKS #1 & #2**

a) Grease Trap Capacity, gals \_\_\_\_\_ Show Calculation Used: \_\_\_\_\_

b) Septic Tank Capacities, gals: \_\_\_\_\_ First (Single) Compartment \_\_\_\_\_ gal

Second Compartment \_\_\_\_\_ gal Third Compartment \_\_\_\_\_ gal c) Effluent Distribution

Method:  Gravity Flow \_\_\_\_\_ Gravity Dosing \_\_\_\_\_ Pressure Dosing \_\_\_\_\_

Dosing Device: \_\_\_\_\_ Pump \_\_\_\_\_ Siphon \_\_\_\_\_

d) Dosing Tank Capacities, gals: Total Capacity \_\_\_\_\_ Dose Volume \_\_\_\_\_

Reserve Capacity

e) Laterals: Number 9 Total Length 333' Pipe Size 4" Spacing 36"

f) Connecting Pipe: Size 4" Length 35'

g) Manifold: Size D' BOX Length -----

h) Disposal Field: Type of Installation SRB

Design Permeability (Percolation Rate) 6-20 IN/HR (SELECT FILL) Trenches: Width \_\_\_\_\_ Total Length \_\_\_\_\_

Bed: Area 1,110 SF

l) Seepage Pits: Design Percolation Rate \_\_\_\_\_ Number of Pits \_\_\_\_\_

Total Percolating Area Provided \_\_\_\_\_

4. Attachments (Check items included):

General Plan of System Showing Location of All System Components

\_\_\_\_ Convenience Waiver

Cross-Sections of Each System Component Including Grease Trap, Septic

MUA Waiver

Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor

\_\_\_\_ Buoyancy Calculations

\_\_\_\_ Drains

\_\_\_\_ Commercial Flow Calculations

\_\_\_\_ Pump Performance Curve

\_\_\_\_ NJDEP Approvals

\_\_\_\_ Other -- Specify \_\_\_\_\_

5. I hereby certify that the information furnished on Form 4 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer \_\_\_\_\_ Date 1-24-23

**PROFESSIONAL ENGINEER'S LIC. # GE28106**

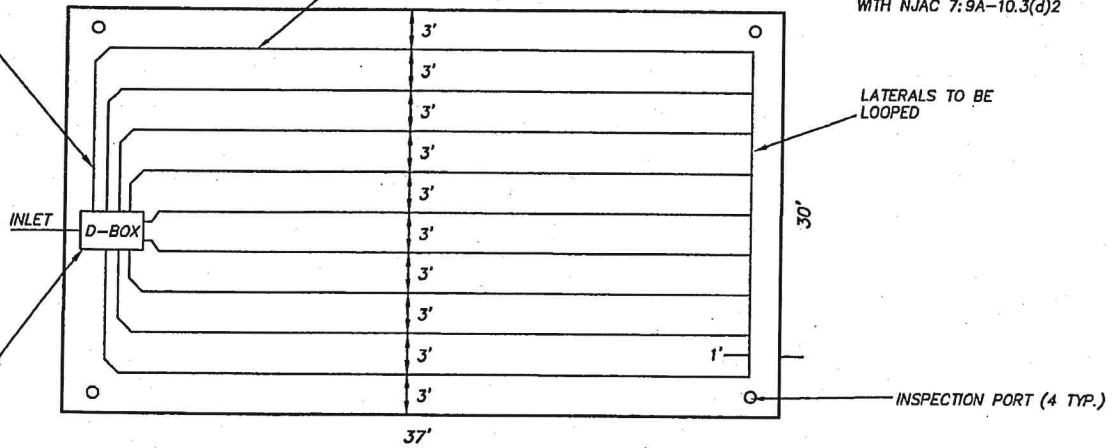
REV. DATE 8-14-20 - REV. AS PER COUNTY H.D. COMMENTS



NON PERFORATED PIPE FROM DISTRIBUTION BOX TO START OF LATERALS

4" DIA. PERFORATED PVC LATERAL (TYP.)

NOTES:  
1. ALL JOINTS TO BE WATERTIGHT  
2. ALL HOLES TO BE IN ACCORDANCE WITH NJAC 7:9A-10.3(d)2

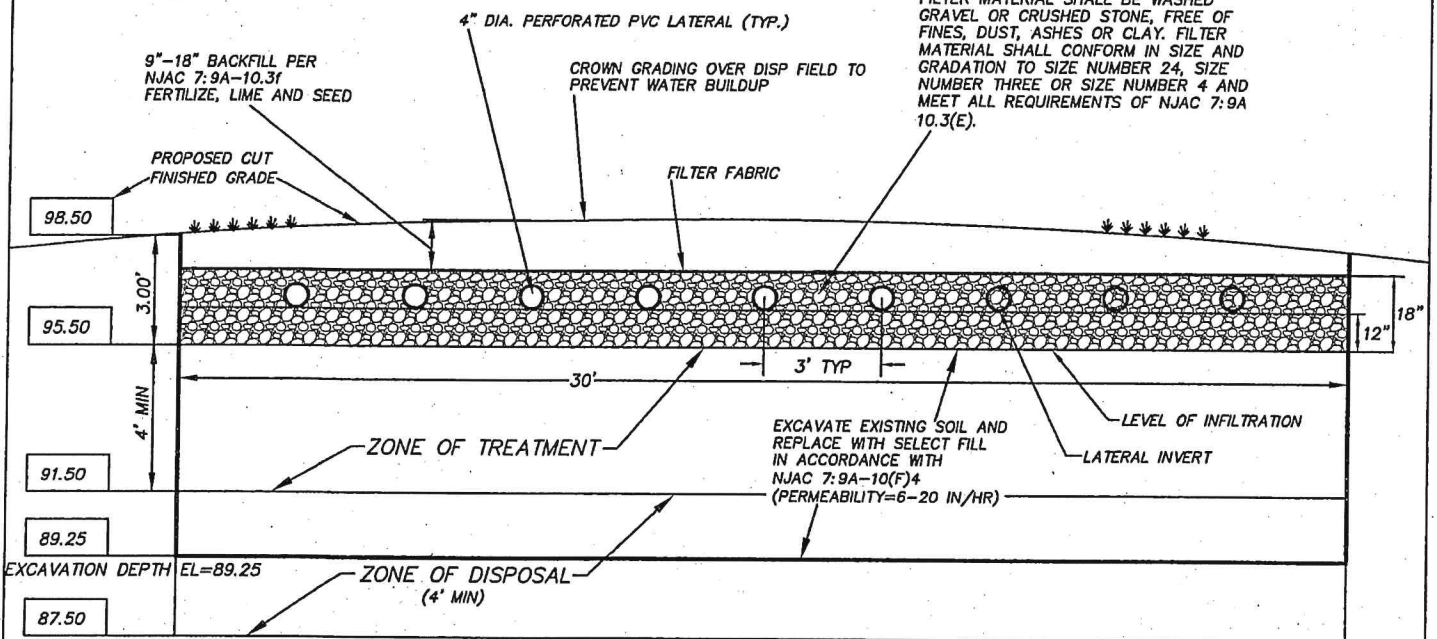


THE DISTRIBUTION BOX SHALL BE INSTALLED DIRECTLY ON THE FILTER MATERIAL WITHIN THE DISPOSAL BED.

\*LATERALS: NUMBER 9 TOTAL LENGTH 333' PIPE SIZE 4" SPACING 36"

**DISPOSAL FIELD LATERAL SPACING DETAIL**  
NOT TO SCALE

EXISTING GRADES = 99.00 -98.75



**DISPOSAL FIELD CROSS SECTION DETAIL**  
NOT TO SCALE

TP1:  
EL=98.75 - ESHWT EL=87.67  
TP2  
EL=98.75 - ESHWT EL=87.67

\*\* NOTE: THE USE OR MIXING OF NATIVE SOIL AS SELECT FILL IS NOT ACCEPTABLE UNLESS APPROVED IN ADVANCE BY DESIGN ENGINEER \*\*

1	REV. AS PER COUNTY H.D. COMMENTS	DD	SM	8-14-20
NO.	REVISIONS	DRAWN	APPR	DATE



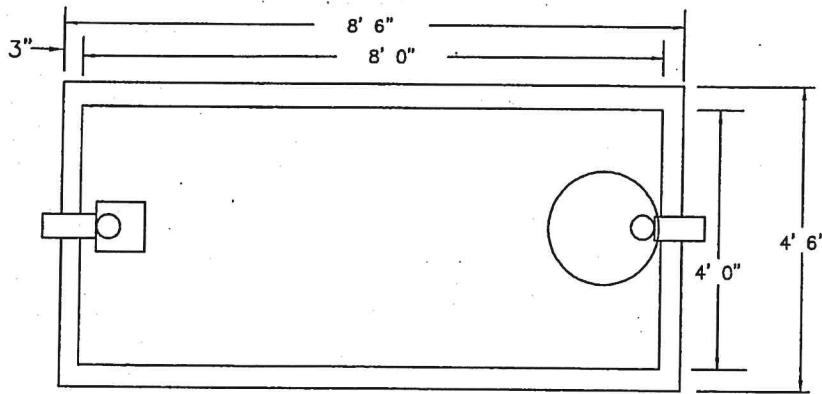
**SOUTH JERSEY ENGINEERS**  
P.O. BOX 1406, VOORHEES, N.J. 08043  
ph (856) 851-9050 fax (856) 851-9051  
N.J. CERTIFICATE OF AUTHORIZATION NO. 24GA28095400

**CONSTRUCTION DETAILS FOR SEWAGE DISPOSAL SYSTEM**

**LOT 16 BLOCK 5601 MONROE TOWNSHIP**

**SANDFORD S. MERSKY, P.E.**  
PROFESSIONAL ENGINEER'S LIC. # GE28106

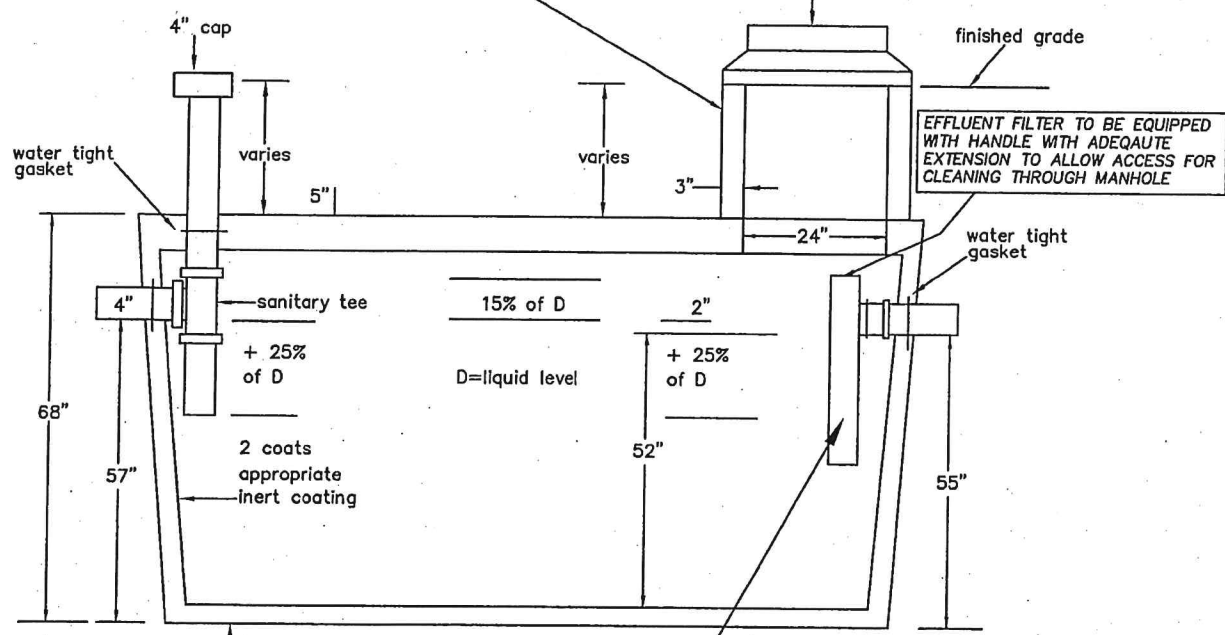
1-24-23  
DATE



NOTE: SOLID CONCRETE RISERS TO BE UTILIZED. BUTYL TO UTILIZED BETWEEN RISER AND TANK AND RISER AND MANHOLE FRAME

MARKER TO BE SUPPLIED DENOTING LOCATION OF EFFLUENT FILTER AND NEED FOR PERIODIC CLEANING

24" cast iron cover, bolting (typ.)



EFFLUENT FILTER TO BE EQUIPPED WITH HANDLE WITH ADEQUATE EXTENSION TO ALLOW ACCESS FOR CLEANING THROUGH MANHOLE


TUFF TITE EF-6 Effluent Filter to be installed and maintained per latest applicable manufacturers instructions and be accessible through manhole cover. Effluent filter utilized must meet requirements of N.J.A.C. 7:9A-8.2(j)3 and has NSF 46 certification.

As Manufactured by Mershon Concrete - Bordentown, NJ or approved equal (1-800-MERSHON)

1000 GAL SEPTIC TANKS #1 & #2 W/ EFFLUENT FILTER (NTS)

Notes:

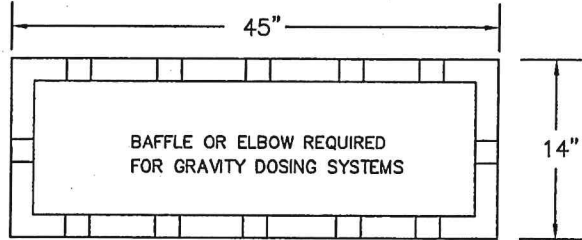
1. Tank is 4000 psi concrete - steel reinforced
2. Concrete conforms to ACI 318-16-4.5.1 and ACI 318-16-4.5.2
3. Tank complies with all requirements of NJDEP Chapter 199 7:9A-8.2
4. Tank to be tested for water tightness in accordance with N.J.A.C. 7:9A-8.2(m).
5. Tank access opening labeling to be in accordance with N.J.A.C. 7:9A-8.2(l2)

NO.		REVISIONS		DRAWN	APPR	DATE
 <p><b>SOUTH JERSEY ENGINEERS</b> P.O. BOX 1406, VOORHEES, N.J. 08043 ph (856) 651-9050 fax (856) 651-9051 N.J. CERTIFICATE OF AUTHORIZATION NO. 24GA28005400</p>		<p><b>CONSTRUCTION DETAILS FOR SEWAGE DISPOSAL SYSTEM</b></p> <p><b>LOT 16 BLOCK 5601 MONROE TOWNSHIP</b></p> <p><b>SANDFORD S. MERSKY, P.E.</b> PROFESSIONAL ENGINEER'S LIC. # GE28106</p>				
		<p>1-24-23</p> <p>DATE</p>				

THE DISTRIBUTION BOX SHALL BE SET ON A LAYER OF GRAVEL OR A CONCRETE FOOTING EXTENDING DOWNWARD BELOW THE MAXIMUM EXPECTED DEPTH OF FROST PENETRATION. WHERE GRAVEL IS USED, THE GRAVEL SHALL EXTEND A MINIMUM OF SIX INCHES BEYOND THE SIDES OF THE DISTRIBUTION BOX.

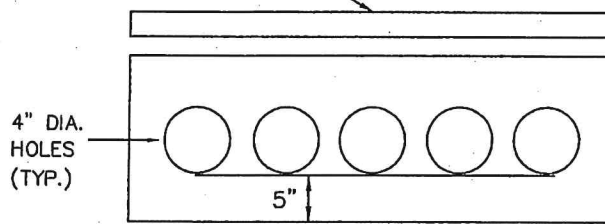
1. DISTRIBUTION BOX TO BE CONSTRUCTED IN ACCORDANCE WITH N.J.A.C. 7:9A-9.4(a).
2. ACCESS OPENINGS MUST BE ADEQUATE IN SIZE AND LOCATED TO FACILITATE REMOVAL OF ACCUMULATED SOLIDS AND INSPECTION OF THE INLET AND ALL OUTLETS.
3. ALL ACCESS OPENINGS SHALL BE EXTENDED TO WITHIN 12 TO 18 INCHES OF THE FINISHED GRADE SURFACE.
4. ACCESS OPENINGS SHALL BE CONSTRUCTED IN SUCH A MANNER AS TO PREVENT THE ENTRANCE OF SURFACE WATER.

NOTE: INSTALLER TO INSURE DISTRIBUTION BOX IS LEVEL AND THAT ALL OUTLET PIPES ARE SET AT THE SAME ELEVATION. SPEED LEVELERS OR ALTERNATE METHOD TO BE USED TO INSURE THAT ALL OUTLET PIPES ARE LEVEL.

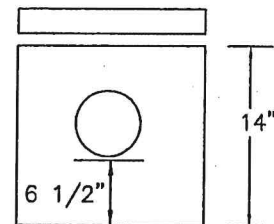


TOP VIEW

2" THICK CONCRETE LID



SIDE VIEW



END VIEW

1 INLET, 11 OUTLET W/GASKETS

Notes:

1. All dimensions are approximated.
2. 4000 PSI Concrete
3. Reinforcing - 1.6 x 1.6 WWF.


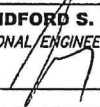
Dimensions

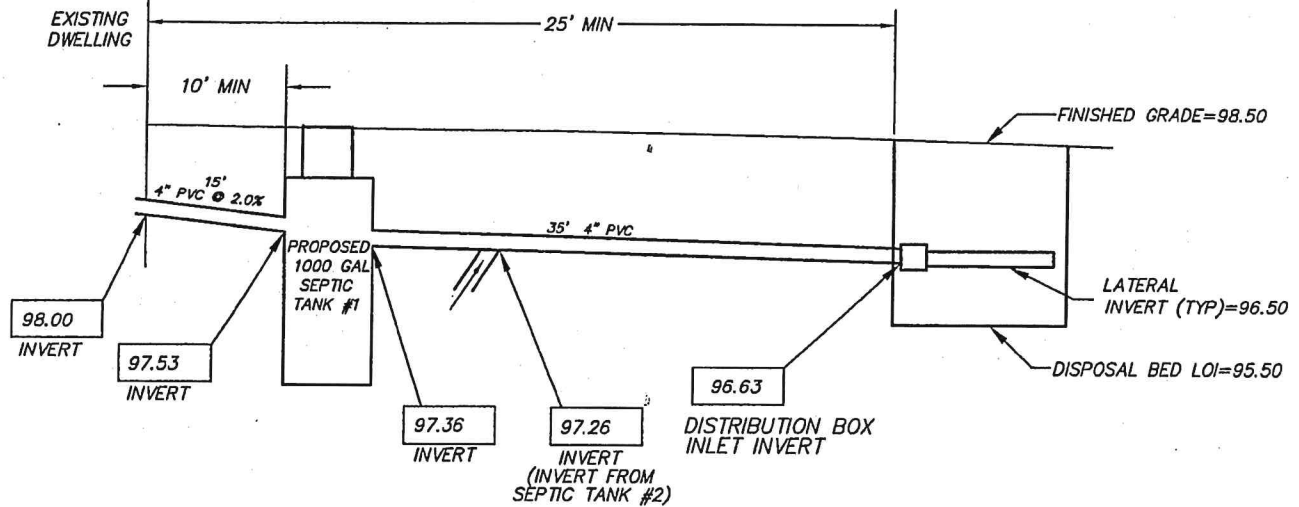
- Length - 45"  
 Width - 14"  
 Height - 14"

As Manufactured by Mershon Concrete - Bordentown, NJ or approved equal  
 (1-800-MERSHON)

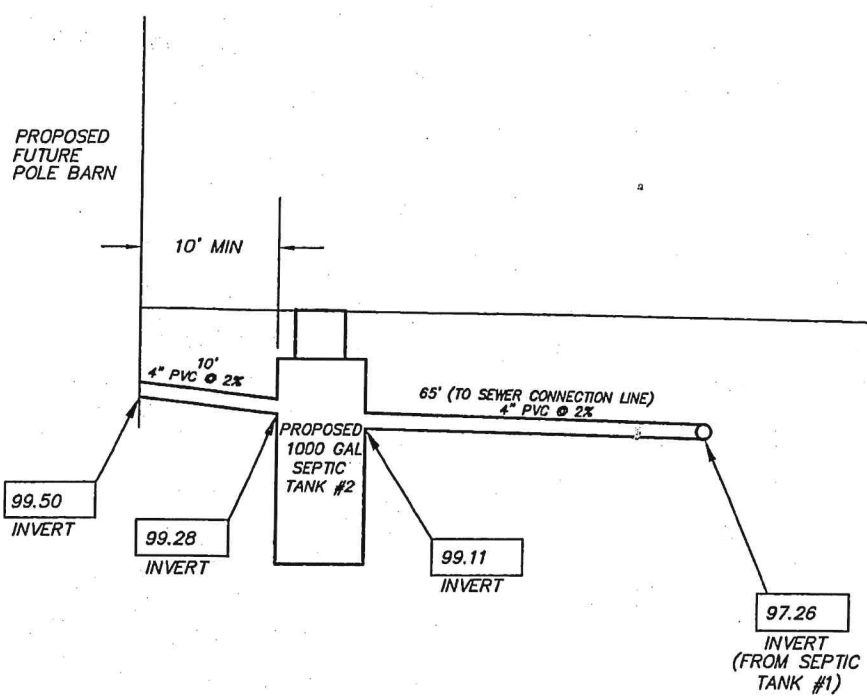
**11 HOLE DISTRIBUTION BOX**

NOT TO SCALE

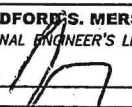
NO.	REVISIONS	DRAWN	APPR	DATE
 <b>SOUTH JERSEY ENGINEERS</b> P.O. BOX 1406, VOORHEES, N.J. 08043 ph (856) 851-8050 fax (856) 851-9051 N.J. CERTIFICATE OF AUTHORIZATION NO. 24GA28095400		<b>CONSTRUCTION DETAILS FOR                      SEWAGE DISPOSAL SYSTEM</b>  <b>LOT 16 BLOCK 5601                      MONROE TOWNSHIP</b>  <b>SANDFORD S. MERSKY, P.E.</b> PROFESSIONAL ENGINEER'S LIC. # GE28106 		
				1-24-23 DATE

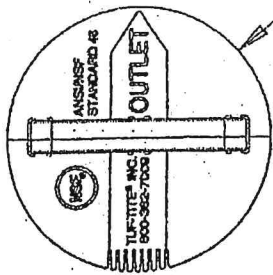


**DISPOSAL SYSTEM PROFILE A**  
NOT TO SCALE

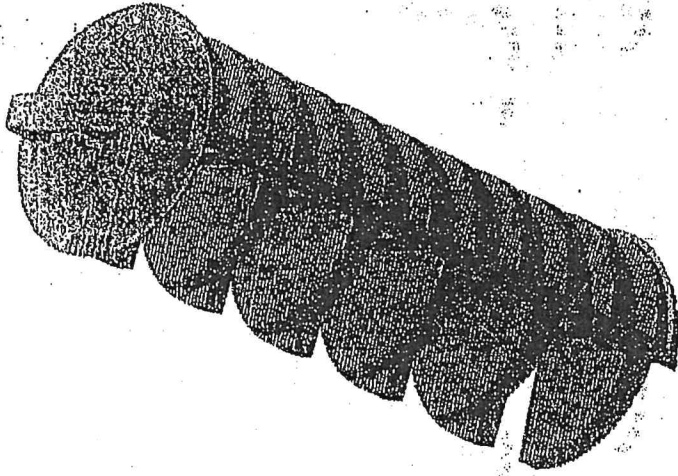
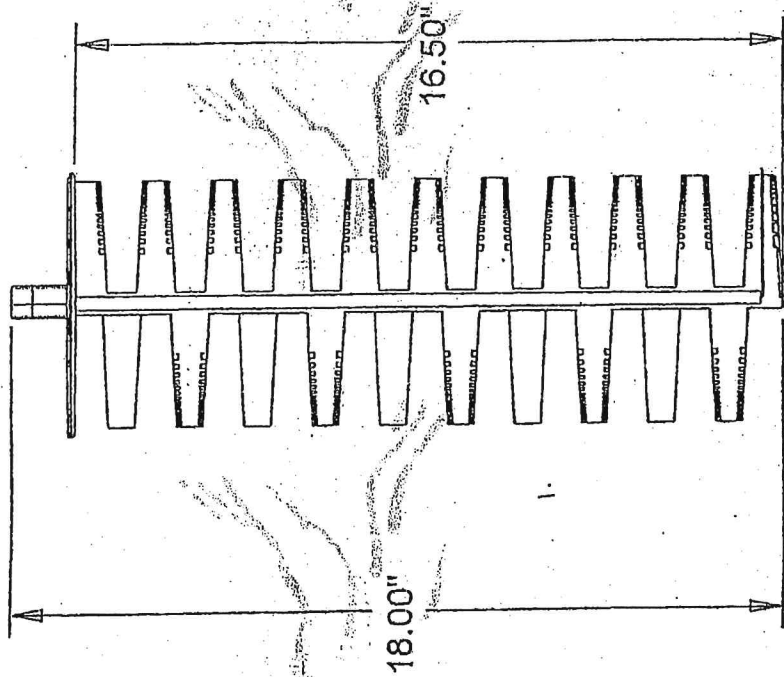


**DISPOSAL SYSTEM PROFILE B**  
NOT TO SCALE

1	REV. AS PER COUNTY H.D. COMMENTS	DD	SM	3-23-23
NO.	REVISIONS	DRAWN	APPR	DATE
<p align="center"><b>SJE</b></p> <p align="center"><b>SOUTH JERSEY ENGINEERS</b> P.O. BOX 1406, VOORHEES, N.J. 08043 ph (856) 651-9050 fax (856) 651-9051 N.J. CERTIFICATE OF AUTHORIZATION NO. 24GA28095400</p>		<p align="center"><b>CONSTRUCTION DETAILS FOR SEWAGE DISPOSAL SYSTEM</b></p> <p align="center"><b>LOT 16 BLOCK 5601 MONROE TOWNSHIP</b></p> <p align="center"><b>SANDFORD S. MERSKY, P.E.</b> PROFESSIONAL ENGINEER'S LIC. # GE28106</p>		
		 DATE 1-24-23		



Ø 6.00"



Material: High-Impact Polypropylene  
Color: Blue

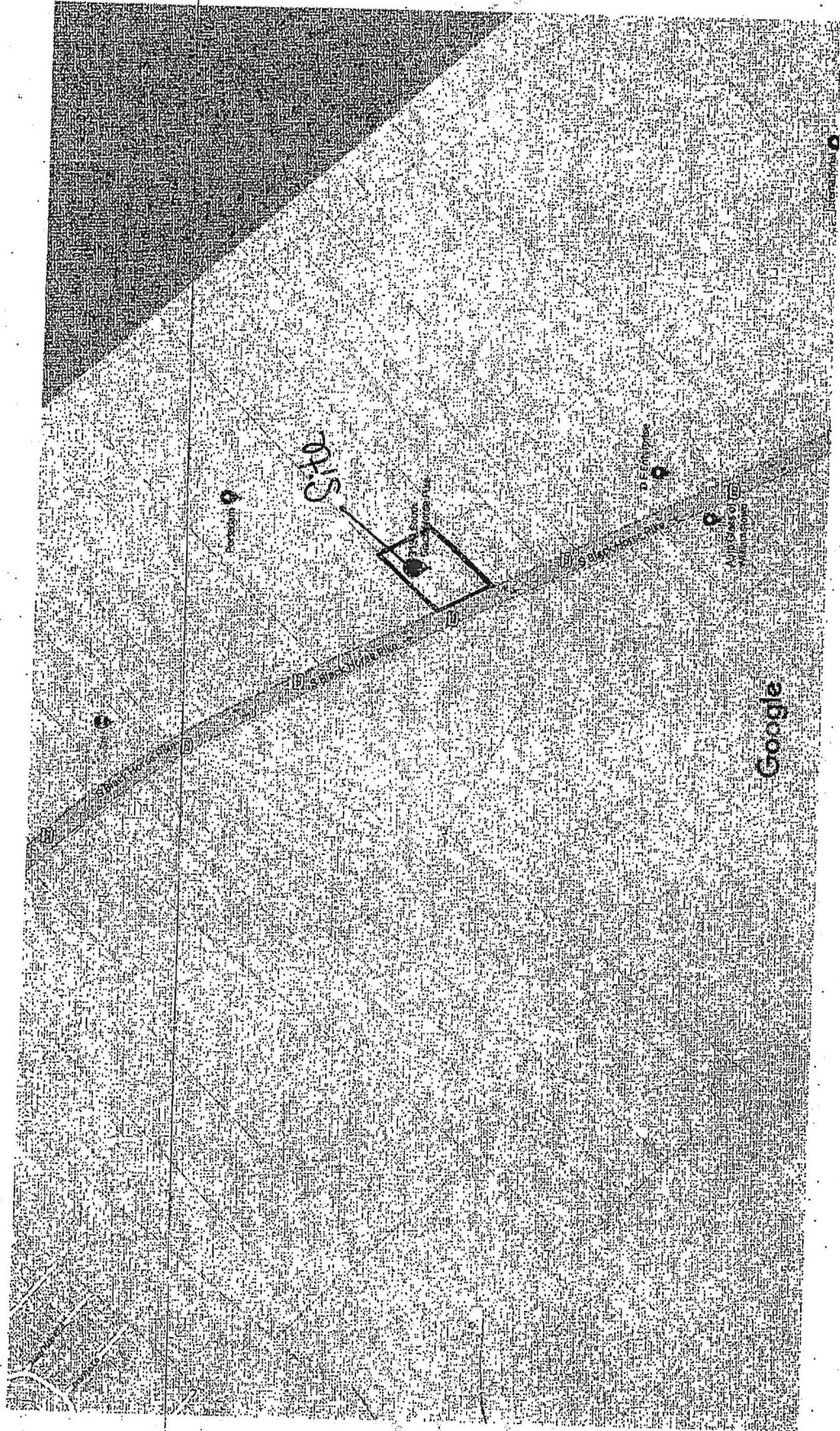
PART NAME: 6" EFFLUENT FILTER  
PART #: EF-6

**Drainage and Septic Products**  
Tuf-Tite, Inc.  
1200 Flex Court  
Lake Zurich, Illinois 60047  
TELEPHONE: 847.550.1011  
TOLL FREE: 800.382.7009  
FAX: 847.550.8004



Google Maps 3132 S Black Horse Pike

Williamstown, NJ



Map data ©2020 200 ft

## **IMPORTANT INFORMATION FOR THE SEPTIC SYSTEM END-USER**

Your septic system has been designed to provide you with many years of trouble free service. Please take the time to review the following facts and information relative to the use and operation of the system:

1. Your system has been designed to accommodate a specific number of bedrooms and occupants. Be sure to contact your county board of health or the design engineer prior to expanding the living area of your home to insure that your system continues to comply with regulations.
2. Your county board of health has issued you an operational permit. For all purposes, your individual system is now treated under the law in a similar manner to a municipal sewer system. Fines and penalties may be imposed upon users who have malfunctioning systems.
3. Pumping of the system every three (3) years is highly recommended in order to prevent system failure. System inspections should be performed on an as-needed basis.
4. The use of acid-based cleaning solutions are not recommended.
5. Water conditioners and other similar devices should not be introduced into the system. The system has not been designed for use with garbage disposal systems, and the use of such can lead to premature pumping requirements or system failure.
6. Trees or other rooted plants should not be placed in the vicinity of the disposal field, as the roots will eventually destroy the piping network. A grass covering is recommended. Exposure to the sun and wind, while not necessary, will enhance the operation of the system.
7. The use of water conservation devices is highly recommended. Excess water flow, faucet drips, leaking toilet components, etc. are cause for system failure.
8. Disposal of any toxic wastes into the system is prohibited and can cause ground water pollution. The end effect can be contamination of your well and those of your neighbors. Severe fines can be imposed in these cases. Paints, thinners, chemicals, photo developers, etc. are examples of items that can cause ground water pollution.
9. All modifications to the system must be approved by your county board of health (and the Pinelands Commission, when applicable). Emergency repairs shall be reported immediately.
10. A **HOMEOWNER'S GUIDE TO SEPTIC SYSTEMS** is available from the State of New Jersey, Division of Water Resources, CN031, Trenton, NJ 08625. A similar publication (EB-10) is available from Rutgers University, Cook College, New Brunswick, NJ. Please contact the design engineer should you have any difficulty in obtaining these publications.

### **DESIGN CRITERIA AND LIMITS OF LIABILITY**

The ISDS design is primarily based upon soil profile pits and testing performed in accordance with N.J.A.C. 7:9a, improvements readily identifiable at the surface, inputs and surveys from the applicant and adjacent property owners, and public records (if provided by the applicant). The location of subsurface improvements which are not readily visible from the surface, such as existing wells, ISDS, and underground utilities may be estimated if written records are not available to support an exact location.

Prior to installation, it is the applicant's, installer's and well driller's responsibility to verify that all proposed and existing improvements, wells and ISDS, subsurface or otherwise, are as shown on this plan. If this plan is in error, South Jersey Engineers, L.L.C.'s sole liability shall be to correct or revise the plan as required to the extent allowable by N.J.A.C. 7:9a. South Jersey Engineers, L.L.C. shall not be liable in any way for installations which proceed without this required verification, or systems

which cannot be installed due to unknown or undiscovered subsurface improvements.

Soil conditions may vary from those observed in profile pits and used as a basis for design. In the event that soil conditions observed during installation are not as predicted, South Jersey Engineers, L.L.C.'s sole liability shall be to correct or revise the ISDS plan as required. South Jersey Engineers, L.L.C. shall not be liable for any additional ISDS cost or expense incurred by the applicant as a result of revisions, or any other determinations relative to overall site suitability as a result of varying soil conditions.

Elevations of existing building sewer lines, if applicable, are estimated. Accordingly, it may be determined during installation that pumping is required when not originally specified on ISDS plans, or that pumping can be eliminated when originally specified. In either case, South Jersey Engineers, L.L.C. will revise ISDS plans without additional charge (excepting new construction). However, the cost of county fees and any additional equipment required during installation shall be borne by the applicant.

Soil testing performed for the ISDS design are for ISDS applications only, and shall not be utilized for any other purpose, including but not limited to determination of dwelling elevations. Upon request by the client, additional soil testing will be performed at the proposed dwelling location for an additional fee. The "regional zone of saturation", also known as the "estimated seasonal high water table (ESHWT)", is an estimate of the high ground water level at the test location. However, this is an estimated value and other factors, such as lack of soil mottling, may preclude an accurate reading. Accordingly, South Jersey Engineers, L.L.C. shall not be held liable in the event that the ESHWT is later determined to be at an elevation higher than that originally estimated.

Soil testing for the ISDS must be performed by backhoe per N.J.A.C. 7:9a. The backhoe is a large machine and can possibly cause damage to the property above and beyond that caused by the test pit excavations. While South Jersey Engineers, L.L.C. and/or their backhoe subcontractors will call for an underground utility markout, it is possible that the markout may not be accurate or that private subsurface utilities may not be located. Also, the applicant is aware that excavations performed by the backhoe may settle over a period of time. Accordingly, South Jersey Engineers, L.L.C. shall not be held liable for damage to the property or any subsurface utilities. The applicant represents that they have the legal right to authorize soil testing performed by backhoe on the property.

South Jersey Engineers, L.L.C. shall not be liable in any way for the performance, schedule or quality of the applicant's installer. It shall be the applicant and/or installer's responsibility to contact South Jersey Engineers, L.L.C. prior to installation to discuss specifics of the installation. Unless agreed to otherwise, installation support, inspections and certifications by South Jersey Engineers, L.L.C. are not part of this design and shall be billed to the applicant.

South Jersey Engineers, L.L.C. has designed this ISDS to either be (1) in conformance with N.J.A.C. 7:9a, or (2) to be in as close conformance as conditions will allow. ISDS life and performance is primarily dependent upon proper usage and maintenance by the applicant, which cannot be controlled by South Jersey Engineers, L.L.C. Also, soil conditions may vary from those tested or observed, and may even be inadequate in the case of existing buildings.

### **Additional Notes - General**

All construction practices and procedures are to be in compliance with N.J.A.C. 7:9a (Effective April 2, 2012).

The installer shall contact the design engineer as prescribed in N.J.A.C. 7:9a or whenever consultation, clarification or inspections are required.

The installer shall contact the engineer prior to excavation to discuss specific requirements relative to excavation, placement and certification of fill, etc.

The installer shall immediately notify the design engineer should conditions other than those noted be encountered during installation.

Drainage from basement floors, footings, roofs, gutters,

sumps and water conditioners shall not enter the disposal system.

Garbage disposal units shall not be used or installed in the premises.

The installer shall verify that finished elevations of the premises and sewerage lines leaving the premises will provide proper flow to the system.

The installer shall verify that the proposed or existing dwelling will not exceed the design capacity of the system. When possible, the installer shall recommend the use of water saving fixtures to the homeowner.

The installer shall verify the location of all dwellings, septic systems and wells within a 150 foot radius of the installation. Any discrepancies from the plans shall be reported to the design engineer and the administrative authority immediately. Special attention shall be paid to new construction which may have occurred subsequent to the design.

The installer shall insure that the homeowner is aware of the location of all system components.

The installer shall instruct the end-user on the operation, maintenance, inspection and permit renewal requirements of the sewage disposal system. Most system failures are due to improper maintenance by the user.

### **Disposal Fields**

The installer shall verify that soil conditions are as described on the soil logs. The installer shall perform a percolation test at the bottom of any excavated area to insure proper drainage.

The flow of surface water over the disposal field shall be minimized.

Select fill utilized in the zone of treatment shall meet the requirements of N.J.A.C. 7:9a-10.1(f)4 and Pinelands Commission standards when applicable. Fill utilized in the zone of disposal shall meet the requirements of N.J.A.C. 7:9a-10.1(f)5. All fill, and the compaction thereof, must be tested and certified by an engineer. Fill shall be installed and compacted per N.J.A.C. 7:9a-10.4(d)3, except that fill shall be compacted by hand only and not by the use of heavy vehicles.

Excavations and fill material shall not be exposed to rain, heavy winds or other extreme conditions. Excavations that have been exposed to rain may have smeared surfaces which must be raked and/or roughened by hand prior to installation of fill which has been exposed to rain or wind may lose uniformity of silt and clay content, and must be thoroughly mixed and retested prior to installation.

Inspection ports shall be provided near the end of each lateral per N.J.A.C. 7:9a-9.5(a)6 in disposal field corners. Check with local authority for specific requirements.

**South Jersey Engineers LLC**  
**P.O. Box 1406**  
**Voorhees, NJ 08043**  
**856-651-9050 - Fax 856-651-9051**  
**www.septics.com**

# FORM E-D EXEMPT

Monroe Municipal Utilities Authority  
1452 Glassboro Road  
Williamstown, NJ 08094  
Telephone No.: 856-226-3628  
Fax No.: 856-243-2359  
Email: [info@monroemuaj.com](mailto:info@monroemuaj.com)

## APPROVAL OF EXEMPTION TO CONNECT INTO PUBLIC WATER AND SEWER WHERE SERVICE IS NOT AVAILABLE TO SITE.

Please Circle: RESIDENTIAL      COMMERCIAL      INDUSTRIAL  
Please Select One:      WATER ONLY       SEWER ONLY      BOTH WATER & SEWER

DATE: 2/17/23

APPLICANT:  
Name: Sarah Perreca  
Address: PO Box 1406  
City, State, Zip: Voorhees, NJ 08043  
Telephone: 856-661-9060 Fax: \_\_\_\_\_  
Email: Sarah@septics.com

PROJECT NAME (if other than applicant(s)):  
Name: \_\_\_\_\_  
Address: 3132 Black Horse Pike  
Tax Map Block No.: 5601 Lot No.: 16

The Applicant has made a request for water and/or sewer service. The Authority has reviewed the request and has determined that the water and/or sewer service is not available to the site.

1. Therefore, the Authority has no objection to the installation of either an on-site disposal system or potable water system providing that all necessary approvals are granted by the appropriate Township, County and State Agencies.
2. The Applicant agrees that when water and/or sewer facilities become available, the applicant or their successor in title will connect to the public water and/or sewer system.

Sarah Perreca      Sarah Perreca      2/17/23  
PRINT NAME      APPLICANTS SIGNATURE/DATE

Monroe Municipal Utilities Authority

[Signature]  
AUTHORIZED SIGNATURE



- NOTES:
1. REFERENCE DATA FROM PLAN ENTITLED, "PLAN OF SURVEY", PREPARED BY ROBERT J MONSON, PLS, DATED 4-30-20.
  2. THIS PLAN FOR SEPTIC PURPOSES ONLY; NOT FOR ANY OTHER PURPOSE.
  3. NO TREES PERMITTED WITHIN 10' OF PROPOSED DISPOSAL FIELD.
  4. ALL SEPTIC TANKS TO BE 10' MIN FROM DWELLING, 50' MIN FROM EXISTING WELL AND 25' MIN FROM ANY WATER COURSE.
  5. CONCRETE SEPTIC TANKS FROM MANUFACTURERS THAN THAT SPECIFIED, AND TANKS WITH LARGER CAPACITIES AND COMPARTMENTS THAN THAT SPECIFIED, MAY BE UTILIZED AS LONG AS THEY CONFORM TO NJAC 7-9A. WHEN A DIFFERENT TANK IS UTILIZED, THE INSTALLER SHALL PROVIDE THE DESIGN ENGINEER WITH A CUT SHEET OF THE TANK PRIOR TO SUBMISSION TO THE GCHD FOR APPROVAL.
  6. BENCHMARK ASSUMED ELEV=100.00 AT A NAIL SET IN POLE, SEE PLAN FOR LOCATION.
  7. PLANS ARE VALID FOR A MAXIMUM OF 2 YEARS FROM THE DATE OF ISSUANCE & MUST BE RE-EXAMINED BY THE DESIGN ENGINEER IN ADVANCE IF UTILIZED AFTER THAT DATE.
  8. NO ALTERATIONS CAN BE MADE TO COMPONENT LOCATIONS OR MATERIALS WITHOUT PRIOR AUTHORIZATION BY BOTH THE ADMINISTRATION AUTHORITY AND THE DESIGN ENGINEER.
  9. IN ACCORDANCE WITH SECTION 7-9A-12.8(B) OF THE REGULATIONS, OR (A) IF IT IN REFERENCE TO THE ABANDONMENT OF TANKS, CESSPOOLS, DISPOSAL FIELDS, ETC.
  10. THIS SYSTEM HAS BEEN DESIGNED TO OPERATE BY GRAVITY FLOW BASED UPON ESTIMATED EXISTING SUBSURFACE COMPONENT ELEVATIONS AND/OR THE ABILITY OF THE INSTALLER TO RAISE PLUMBING ELEVATIONS AS REQUIRED. THE INSTALLER SHALL CONFIRM IN ADVANCE OF CONSTRUCTION THAT GRAVITY FLOW CAN BE OBTAINED. IN THE EVENT THAT GRAVITY FLOW AND/OR PROPOSED ELEVATIONS SHOWN ON THIS PLAN CANNOT BE OBTAINED, THE INSTALLER SHALL CONTACT THE DESIGN ENGINEER TO REVISE THIS PLAN TO ACCOMMODATE GRAVITY DOSING.

**RENEWAL 1-24-23**

INSTALLER TO RE-VERIFY ALL SURROUNDING IMPROVEMENTS AND REPORT DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION.

THERE ARE NO KNOWN WELLS OR SEPTIC SYSTEMS WITHIN 150' OTHER THAN SHOWN. ENGINEER SHALL NOT BE LIABLE FOR LOCATING ANY ON OR OFF SITE IMPROVEMENTS THAT ARE NOT SHOWN ON A SURVEY OR ARE NOT VISIBLE FROM THE SURFACE.

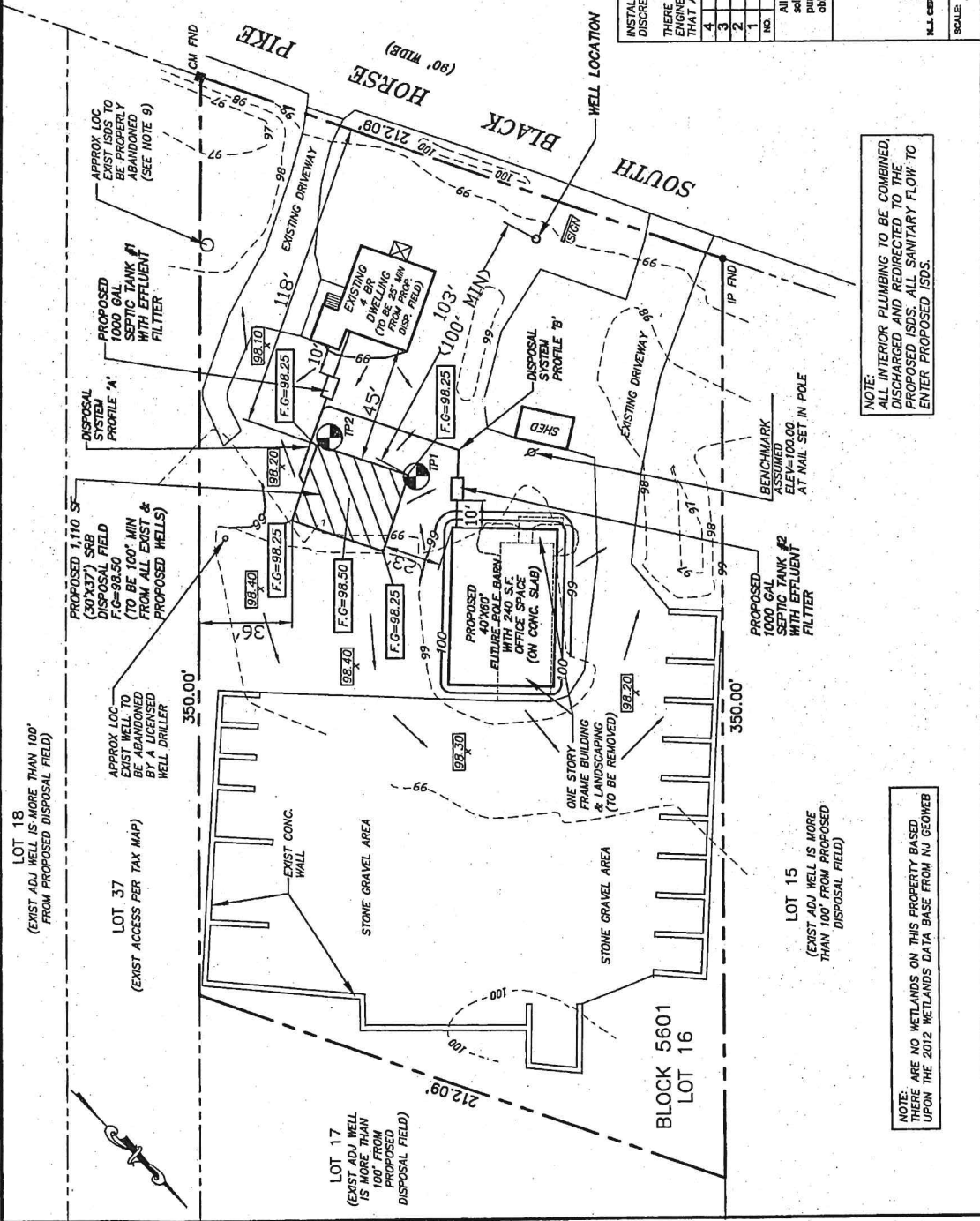
REV.	AS PER COUNTY H.D. COMMENTS	DD	SM	3-23-23
4	REV. AS PER COUNTY H.D. COMMENTS	DD	SM	3-23-23
3	REV. AS PER COUNTY H.D. COMMENTS	DD	SM	2-28-23
2	REV. AS PER COUNTY H.D. COMMENTS	DD	SM	2-17-23
1	REV. AS PER COUNTY H.D. COMMENTS	DD	SM	8-14-20

All data, plans and specifications combined herein (including that provided on application forms) are the sole property of South Jersey Engineers LLC and/or its assignees. Any entity using this information for any purpose must receive written consent in advance from South Jersey Engineers LLC and agrees to assume obligations for any unpaid sums due to South Jersey Engineers LLC.

**SITE PLAN FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEM**  
**LOT 16 BLOCK 5601**  
**MONROE TOWNSHIP**  
**SANFORD S. MERKLEY, P.E.**  
 PROFESSIONAL ENGINEER'S LIC. # GZ28106

**SOUTH JERSEY ENGINEERS**  
 4700 WASHINGTON AVE. SUITE 404  
 FREEHOLD, NJ 08038  
 N.J. CERTIFICATE OF AUTHORIZATION NO. Z4610205000

SCALE: 1"=50' DATE: 1-24-23



NOTE: ALL INTERIOR PLUMBING TO BE COMBINED, DISCHARGED AND REDIRECTED TO THE PROPOSED ISDS. ALL SANITARY FLOW TO ENTER PROPOSED ISDS.

NOTE: THERE ARE NO WETLANDS ON THIS PROPERTY BASED UPON THE 2012 WETLANDS DATA BASE FROM NJ GEOWEB