

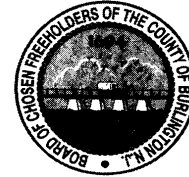
Board of Chosen Freeholders
County of Burlington
New Jersey

Burlington County Health Dept.
Raphael Meadow Health Center
15 Pioneer Boulevard
P.O. Box 6000
Mount Holly, NJ 08060

CERTIFICATE OF COMPLIANCE

Part A — General Information

Permit Number 4244-15



Tele: (609) 265-5548
Fax: (609) 265-5541

(1572)

1 Permitted Activities (Check applicable categories):

☐ New Construction

☐ Deviation from Standards

☐ Alteration/Expansion or Change in Use

☐ Repairs to Existing System

☐ Alteration/Malfunctioning System

☒ Alteration/No Expansion or Change of Use

2. Location of Project:

MANIFIELD TOWNSHIP

Block 8

Lot 21

SOIL PERMEABILITY DATA - Form 3A

Municipality MANSFIELD TOWNSHIP Block 8 Lot 21

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 Data - Enter data for each test replicate on a separate line.

Type of Test	Test (number)	Replicate (letter)	Depth (inches)	Results
TUBE PERMEAMETER	1570	A	LEVEL OF	14.2 I.P.H.
		B	INFILTRATION	15.5 I.P.H.

* 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 results in minutes per foot. For infiltration test, report results in inches per hour.

TUBE PERMEAMETER TEST DATA - Form 3B

MANSFIELD TOWNSHIP
B-8 L-211. Test Number 1570Replicate (Letter) ADate Collected 10/26/152. Material Tested: ☒ Fill☐ Test in Native Soil - Indicate Depth: _____3. Type of Sample: ☒ Undisturbed☐ Disturbed4. Sample Dimensions: Inside radius of Sample Tube, R, in cm. 1.91 cm
Length of Sample, L, in inches 3.50"5. Bulk Density Determination (Disturbed Samples Only): (N/A)
Sample Weight (Wt. Tube Containing Sample - Wt. of Empty Tube), grams _____
Sample Volume ($L \times 2.54 \text{ cm./inch} \times 3.14 R^2$), cc _____
Bulk Density (Sample Wt./Sample Volume), grams/cc _____6. Standpipe Used: ☐ NO ☒ YES
Indicate internal radius, cm 0.635 cm7. Height of Water Level Above Rim of Test Basin, in Inches:
At the Beginning of Each Test Interval, H₁ 6.50"
At the End of Each Test Interval, H₂ 4.50"

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

Time, Start of Test Interval, T ₁	Time, End of Test Interval, T ₂	Length of Test Interval, T, minutes
<u>0:00</u>	<u>0:36</u>	<u>0.60</u>
<u>0:00</u>	<u>0:36</u>	<u>0.60</u>
<u>0:00</u>	<u>0:36</u>	<u>0.60</u>

9. Calculation of Permeability: $(60) \left(\frac{0.4032}{3.6481} \right) \left(\frac{3.50}{0.60} \right) \ln \left(\frac{6.50}{4.50} \right) = 14.2 \text{ i.p.h.}$ K, (in/hr) = $60 \text{ min/hr} \times r^2/R^2 \times L(\text{in})/T(\text{min}) \times \ln(H_1/H_2)$
= $60 \text{ min/hr} \times \frac{0.4032}{3.6481} \times \frac{3.50}{0.60} \times \ln \left(\frac{6.50}{4.50} \right)$
= 14.2 i.p.h.

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

☒ None ☐ Cracks ☐ Worm Channels ☐ Root Channels ☐ Soil/Tube Contact

TUBE PERMEAMETER TEST DATA - Form 3B

MANFIELD TOWNSEND
B-8 L-211. Test Number 1570 Replicate (Letter) B Date Collected 10/26/152. Material Tested: ☒ Fill ☐ Test in Native Soil - Indicate Depth: _____3. Type of Sample: ☒ Undisturbed ☐ Disturbed4. Sample Dimensions: Inside radius of Sample Tube, R, in cm. 1.91 cm
Length of Sample, L, in inches 3.80"5. Bulk Density Determination (Disturbed Samples Only) (N/A)
Sample Weight (Wt. Tube Containing Sample - Wt. of Empty Tube), grams _____
Sample Volume ($L \times 2.54 \text{ cm./inch} \times 3.14 R^2$), cc _____
Bulk Density (Sample Wt./Sample Volume), grams/cc _____6. Standpipe Used: ☐ NO ☒ YES
Indicate internal radius, cm 0.635 cm7. Height of Water Level Above Rim of Test Basin, in Inches:
At the Beginning of Each Test Interval, H₁ 6.30"
At the End of Each Test Interval, H₂ 4.30"

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

Time, Start of Test Interval, T ₁	Time, End of Test Interval, T ₂	Length of Test Interval, T, minutes
<u>0:00</u>	<u>0:37</u>	<u>0.62</u>
<u>0:00</u>	<u>0:37</u>	<u>0.62</u>
<u>0:00</u>	<u>0:37</u>	<u>0.62</u>

9. Calculation of Permeability: $(60) \left(\frac{0.4032}{3.6481} \right) \left(\frac{3.80}{0.62} \right) \ln \left(\frac{6.30}{4.30} \right) = 15.5 \text{ I.P.H.}$
 $K, (\text{in/hr}) = 60 \text{ min/hr} \times r^2/R^2 \times L(\text{in})/T(\text{min}) \times \ln(H_1/H_2)$
 $= 60 \text{ min/hr} \times \frac{0.4032}{3.6481} \times \frac{3.80}{0.62} \times \ln \left(\frac{6.30}{4.30} \right)$
 $= 15.5 \text{ I.P.H.}$

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 (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

Barry J. BeaumontDate 10/26/15Signature of Professional Engineer
(please seal this form)Barry J. Beaumont
BARRY J. BEAUMONTLicense # 36576

SEPTIC COVER - UP

DATE 10/27/15

TOWNSHIP Mansfield

Bl. 8 Lt. 21

APPLICATION # 4244-15

INSTALLER Merkel

OWNER _____

PHONE # _____

READY FOR INSPECTION yes

INITIALS S.F.

☒ partial APPROVED ☐ DISAPPROVED

REASON FOR DISAPPROVAL _____

OK to cover. Final

pending engineer cert

Date 10/27/15 Time _____

INSPECTOR S.F.

Board of Chosen Freeholders
Municipal M. 1-



BURLINGTON COUNTY HEALTH DEPARTMENT
WOODLANE ROAD
MOUNT HOLLY, NEW JERSEY 08060

Paid \$100.00

CK# 1998

BCHD receipt 13510

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE
SEWAGE DISPOSAL SYSTEM

GENERAL INFORMATION - Form 1

1. Type of Permit needed (Check applicable categories):

- | | | |
|---|--|--|
| ☐ New Construction | ☐ Alteration/Expansion or Change in Use | ☐ Alteration/Malfunctioning System |
| ☐ Deviation from Standards | ☐ Repairs to Existing System | ☒ Alteration/No Expansion or Change of Use |

2. Location of Project:

Municipality

MANSFIELD TOWNSHIP

Block:

8

Lot:

21

Street Address

8 WAYNE DRIVE, COLUMBUS, NJ

Zip

08022

3. Name of Applicant (print):

JOHN & JUDY SEMLER

SOIL LOG & INTERPRETATION - Form 2B

Municipality MANSFIELD TOWNSHIP Block 8 Lot 211. Log Number TP-2Method (Check One): ☒ Profile Pit☐ Boring

2. Soil Log

DATE SOIL LOG CONDUCTED 10/9/15

Depth

Munsell Color Name & Symbol; Estimated Textural Class; Estimated

(inches)

Volume % Coarse Fragment, if present; Structure; Moist or Dry

Top-Bottom

Consistence; Mottling - Abundance, Size & Contrast, if present

Test Pit #2 (Elev. = 96.7)

0" - 25" (10yr 4/4) sandy loam; subangular blocky, friable.
25" - 63" (10yr 5/6) sandy clay loam; subangular blocky, friable.
63" - 73" (10yr 6/4) sandy clay loam; subangular blocky, friable.
73" - 132" (2.5Y 6/3) loam to sandy clay loam; subangular blocky, friable; and with many, coarse, prominent (7.5yr 5/6) & (5y 5/3) mottles throughout.

Ground water: 120"

SOIL PERMEABILITY DATA - Form 3A

Municipality MANSFIELD TOWNSHIP Block 8 Lot 21

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 Data - Enter data for each test replicate on a separate line.

GENERAL DESIGN DATA - Form 4

1. Volume of Sanitary Sewage, gal. 650 GPD

- ☒ Residential: No. of Dwelling Units 1 Total No. of Bedrooms 4 BEDROOMS NO CARBAGE
☐ Commercial/Institutional - Indicate type of establishment and show method of calculation. If estimate is based on water meter data, indicate source of data, frequency of readings, average daily flow, and maximum recorded daily reading

2. Alterations or Repairs

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

- ☐ Expansion or Change in Use ☒ Upgrade Existing Facilities
☐ Correct Malfunctioning System ☐ Other - Specify

b.) Describe Nature of Alteration or Repairs: NEW DISPOSAL BED IS TO BE INSTALLED

3. System Components:

a.) Grease Trap Capacity, gals N/AShow Calculation Used

b.) Septic Tank Capacities, gals: ☒ first (single) compartment 1000 GALLONS * EXISTING TANK
☐ second compartment * FILTER TO BE ADDED
☐ third compartment

c.) Effluent Distribution

Method: ☒ Gravity Flow ☐ Gravity Dosing ☐ Pressure Dosing
Dosing Device: ☐ Pump ☐ Siphon

d.) Dosing Tank Capacities, gals: Total Capacity N/A Dose Volume Reserve Capacity e.) Laterals: Number ROWS CHAMBERS Total Length @ 50' = 50' Pipe Size 4" DIA. Spacing 3.0'f.) Connecting Pipe: Size 4" DIA. Length 40' ±g.) Manifold: Size N/A Length h.) Disposal Field: Type of Installation SRBDesign Permeability (Percolation rate) 6-20 I.P.H.☐ Trenches: Width Total Length ☒ Bed: Area 21' x 50' = 1050 SQ. FT.i.) Seepage Pits: Design Percolation Rate Number of Pits Total Percolating Area Provided 4. Attachments (Check items included): (SEE DESIGN PLAN)

- ☒ General Plan Showing Location of All System Components
☒ X - Sections of Each System Component Including Grease Traps, Septic Tank, Dosing Tank, Disposal field, Seepage Pits and Interceptor Drains
☐ Pump Performance Curve
☐ Other - Specify

5. I hereby certify that the information furnished on Form 4 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 Professional Engineer
(plcuse seal this form)

Barry J. Beaumont
BARRY J. BEAUMONT

License # 36576
10/1/15

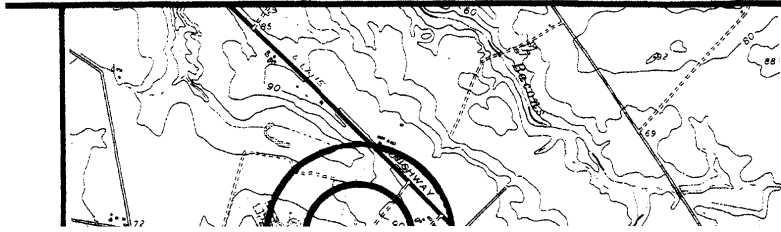
Applicant: John & Judy Semler
8 Wayne Drive
Columbus, NJ 08022

References: Property survey by David E. Goldenbaum, NJPLS,
dated 10-19-78, for applicant.

Burlington Co. Engineering Dept. topographic maps,
year 2000.

Site Location: 8 Wayne Drive

REVISION	DATE	DESCRIPTION	BY	CHKD
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SOIL TEST PITS

October 9, 2015
#1570

8 Wayne Drive
Block - 8 Lot - 21
Mansfield Township
Witnessed: Waived by Kurt Hendricks; Burlington Co. Health Dept.

Test Pit #1 (Elev. = 97.5)

0" - 23" (10yr 4/4) sandy loam; subangular blocky, friable.
23" - 48" (10yr 5/8) sandy clay loam; subangular blocky, friable.
48" - 81" (10yr 5/4) sandy clay loam; subangular blocky, friable.
81" - 132" (2.5Y 6/3) loam to sandy clay loam; subangular blocky, friable; and with many, coarse, prominent (7.5yr 5/6) & (5y 5/3) mottles throughout.

Ground water: 120"
Estimated seasonal high water table: 81" (Elev. = 90.8)

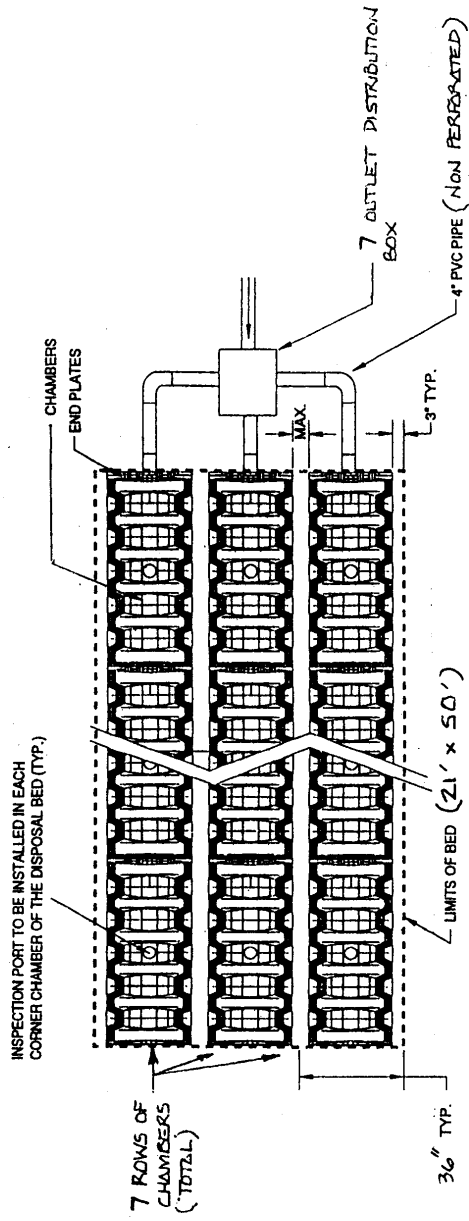
Test Pit #2 (Elev. = 96.7)

0" - 25" (10yr 4/4) sandy loam; subangular blocky, friable.
25" - 63" (10yr 5/6) sandy clay loam; subangular blocky, friable.
63" - 73" (10yr 6/4) sandy clay loam; subangular blocky, friable.
73" - 132" (2.5Y 6/3) loam to sandy clay loam; subangular blocky, friable; and with many, coarse, prominent (7.5yr 5/6) & (5y 5/3) mottles throughout.

Ground water: 120"
Estimated seasonal high water table: 73" (Elev. = 90.6)

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L-21
MANSFIELD

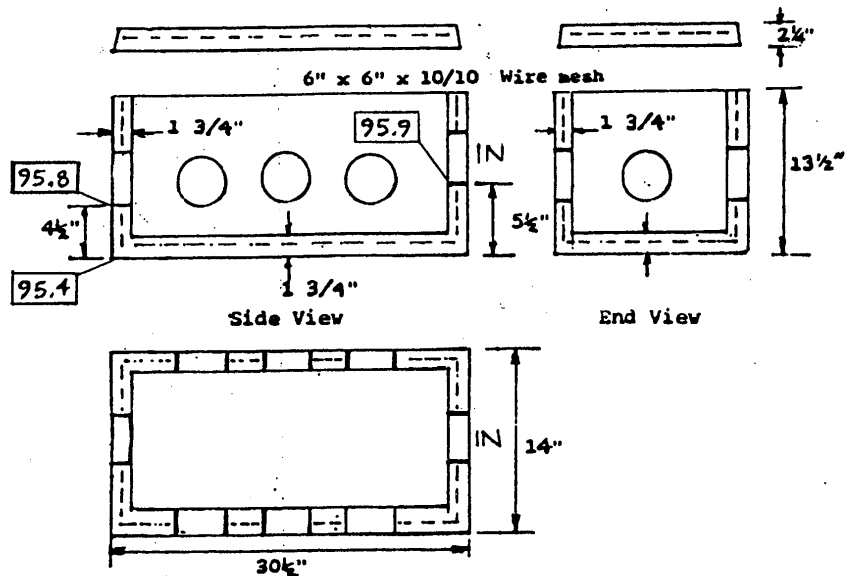
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DISPOSAL BED DETAIL

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MANFIELD

4

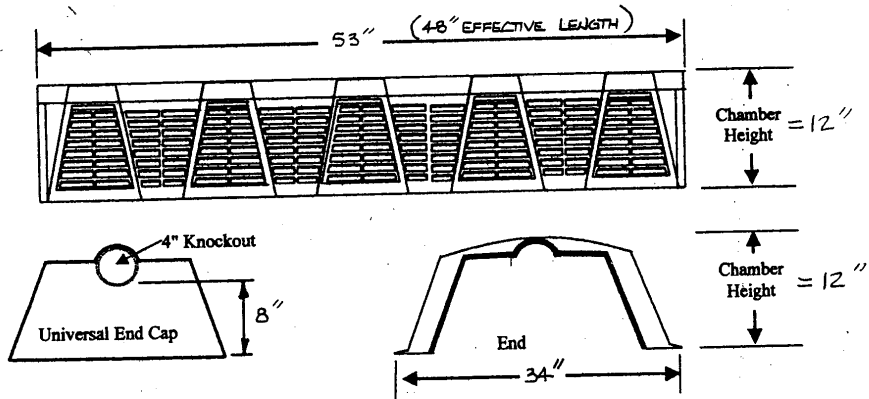


7-OUTLET DISTRIBUTION BOX

- 1) The top of the distribution box is to be within 12" to 18" of finished grade.
- 2) The distribution box shall be set perfectly level on a firm base.
- 3) The distribution box and lid shall be watertight.
- 4) The distribution box shall be set upon a firm base consisting of crushed stone filter material or a concrete footing extending below the maximum depth of frost penetration. Where gravel is used, it shall extend laterally a minimum of 6" beyond the ends of the distribution box.
- 5) ~~Remove~~ 7 - outlet distribution box as manufactured by J.F. Gillespie, Vineland, N.J. or approved equal.

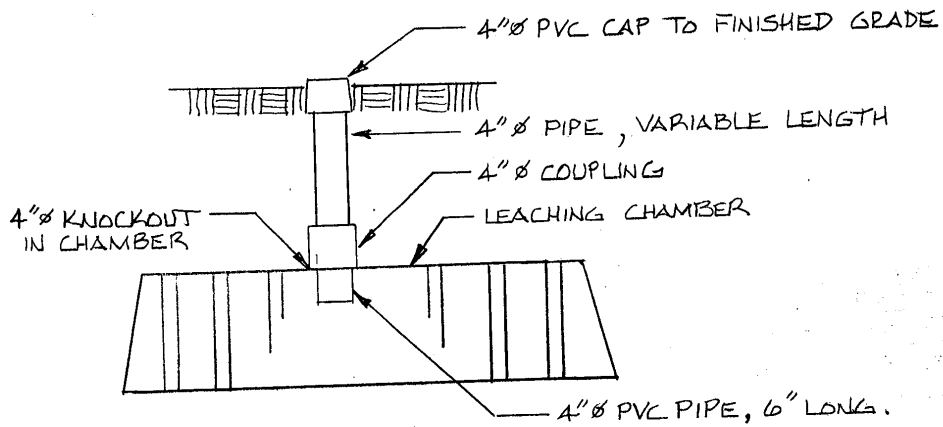
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MANFIELD

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LEACHING CHAMBERS

- 1) N.J.D.E.P. approved leaching chambers :
 Advanced Drainage Systems Biodiffuser
 Cultec Contactor
 Infiltrator Equilizer chamber - "QUICK 4" MODEL DIMENSIONS ARE SHOWN ABOVE



INSPECTION PORT DETAIL

- 1) Inspections ports are to be set at the four corners of the disposal bed.
- 2) Inspection ports shall have secure lids that extend to finished grade.

B-8
 L-21
 MANSFIELD

(6)

Specifications

sewer system shall not be installed until all adjacent to the sewage disposal site has been

shall be used to ensure that the bottom of the disposal

or loamy sands, excavation which exposed the surface of the disposal field. Excavation is to be made to expose a fresh soil surface which is

in a manner that will avoid unnecessary compaction of equipment (bulldozers / front end loaders) are not to be used on the disposal field. Excavation is to be made to expose a fresh soil surface which is

that the bottom and sidewalls of the excavation will not be exposed to the sun or weather. Excavation is to be made to expose a fresh soil surface which is

signaling fill on the plan shall conform to the following

earth similar to that found at the site and free of stumps, or other waste construction material.

material may be placed with the first two feet of the excavation to dissipate the effluent flow. The filler shall be washed gravel, crushed stone, or clean bank-run gravel. The filler shall be 2 1/2 inches, free of fines, dust, ashes or clay. The filler shall be 3, 4, or 24 according to the N.J. Dept. of Environmental Protection.

shall be friable and loamy, free of debris, weeds, stones and other material that may be harmful to plant growth. A pH range of 6.5 to 8.5 should be maintained. Topsoil hauled in from off-site should have a minimum of 2.75 % organic matter content may be raised by

Select Fill - (As per N.J.A.C. 7.9A requirements)

- 1) Coarse fragment content less than 15 % by volume or 25 % per weight.
- 2) Textural analysis (composition by weight, or size fraction passing the 2 or 2 mm sieve : 85 - 95 % sand; 5 - 15 % silt plus clay; minimum 2 % clay.
- 3) Permeability rate : 6 - 20 inches per hour.

Fill - Methods - Prior to the placement of any fill in the disposal field area, all organic matter, vegetation, and topsoil is to be removed. This topsoil shall be stockpiled for future use on the site. If necessary, this stockpile shall be stabilized to prevent soil erosion.

All fill shall be placed over the prepared excavation in 8" lifts which are compacted thoroughly. The top of each layer is to be scarified. Compaction may be accomplished manually or mechanically, by tamping or rolling, or by driving over the filled in area in a controlled manner using a tracked or rubber-tired vehicle.

The last 6" of fill over the disposal field area shall be a good quality topsoil. The surface shall be raked or rolled for the purpose of seeding. For mounded systems, a layer of topsoil 12" in thickness at the center of the mound and 6" in thickness at the edges, shall be placed over the entire mound. The center of the mound shall be raised to prevent ponding of storm water runoff over the disposal field. Fill over the disposal field shall be immediately stabilized after the installation of the septic system. It shall be stabilized with seeding and straw, mulch or sod. Application rates shall be to the recommended standards.

Piping Installation

- 1) Building sewer is to be in conformance with the Uniform Construction Code. 2) Minimum slope is to be 1/4 inch per foot unless specified otherwise.
- 3) Horizontal bends, where required, shall not be sharper than 45 degrees.
- 4) All joints in connecting pipes and delivery pipes shall be watertight and be protected against intrusion by roots.
- 5) Connecting pipe is to be laid on a firm foundation satisfactory to the administrative authority.
- 6) Connecting pipes between the septic tank and the distribution box, and the septic tank to the pump chamber (if required) shall have a minimum slope of 1/4 inch per foot unless specified otherwise.
- 7) Piping in septic bed is to be non-perforated from distribution box to leaching chambers.

Pipe Specifications

Connecting Pipes :

- 1) PVC plastic (ASTM D2665), Schedule 40, SDR-21, or SDR-26.
- 2) ABS Plastic (ASTM 2861)
- 3) Cast iron

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MANFIELD

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13033, D3034)

2, D3298)
STM F810)
y pipes and bed laterals
chedule 40, SDR-21 or SDR-26.

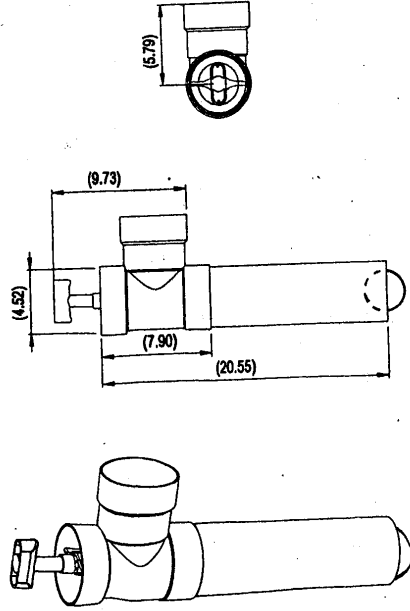
nsible for altering the engineer to any
the design, application or supporting data prior to
all for appropriate inspections as required in the
il Letter.
permeameter sample from the in place fill to verify its

l tub is installed:

id
ic tank capacity & size of the disposal field may be
swimming pools not permitted into septic systems.
is made to the septic system's components.
sign by the contractor/installer must be first approved
ative Authority. Engineer to be notified in this case.

t in order to maintain a properly functioning septic
have septic tank pumped every two years.

ot scale plan.
disposal field is prohibited. The installer/builder shall
led to prevent this from occurring.
uld not be planted over top or immediately adjacent to



SEPTIC TANK EFFLUENT FILTER

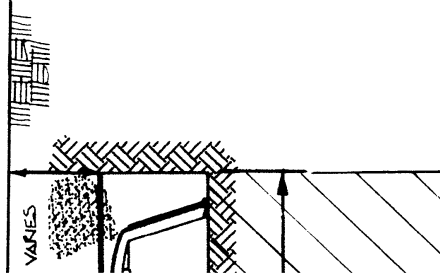
- FILTER IS TO BE RETROFITTED INTO SEPTIC TANK OUTLET
- 6"Ø (MIN) ACCESS PORT IS TO BE PROVIDED WITH CAP TO FINISHED GRADE.
- POLYLAK MODEL PL-122 WITH SHUTOFF BALL
- FILTERS SHOULD BE CLEANED 4X PER YEAR.
- CAP IS TO BE LABELED :
- " FIDER INSIDE - MAINTENANCE REQUIRED "

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MANFIELD

8

IZE LIME & SEED

ON A FIRM BASE)



ce the
er
if

fill, or
of
material.

B-8 L-21
MANSFIELD
9

WIDE DRAINAGE EASEMENT
PIPE)

POSED 21' x 50' GRAVITY FLOW DISPOSAL BED
LEACHING CHAMBERS)

STING DISPOSAL TRENCHES ARE TO BE ABANDONED
PLACE, OR REMOVED WHERE NECESSARY AND BURIED
-SITE.

±, 40 LF ± (1/8" PER FT SLOPE)
IS TO BE UTILIZED,
ED

ITED AT THE 4 CORNERS OF THE

THIN 150' OF THE PROPOSED

B-8 L-21
MANFIELD

GROUND UTILITIES IS APPROXIMATE
ACTOR PRIOR TO STARTING

10