Cumberland County Department of Health
309 Buck Street • Millville, NJ 08332
(856) 327-7602 • www.ccdoh.org

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM
Form 1—General Information

1. Type of Permit Needed (Check and Fill-in applicable categories):
   - ___ a. New Construction
   - ___ b. Alteration/ No Expansion or Change in Use
   - ___ c. Alteration/Expansion or Change in Use
   - ___ d. Alteration/Malfunctioning System
   - ___ e. Repair (in-kind replacement)/ Malfunctioning system
   - ___ f. Repair (in-kind replacement)/ System is not malfunctioning
   - ___ g. Deviation from Standards
   - ___ h. New System Install (existing structure)

2. Location of Project:
   Municipality _____ Block No. _____ Lot No. _____
   Street Address _____ Zip _____

3. Name of Applicant (print): _____
4. Applicant's Present Address: _____
5. Applicant's Phone Number: _____

6. Type of Facility:
   - __ Residential
   - __Commercial/Institutional
   - __Specify Type of Establishment: _____

7. Type of Wastes to be Discharged:
   - __ Sanitary Sewage
   - __ Industrial Wastes
   - __ Other-Specify Type: _____

8. If (d) or (e) in #1 above are checked, indicate the type of malfunction and its cause (check all that apply):
   - __Contamination of nearby well/surface water bodies by sanitary sewage/effluent
   - __ Ponding/breakout of sanitary sewage/effluent onto the surface of the ground
   - __ Seepage of sanitary sewage/effluent into portions of building below ground
   - __ Back-up of sanitary sewage into the building served, which is not caused by a physical blockage of the internal plumbing
   - __ Any manner of leakage observed from components that are not designed to emit sanitary sewage/effluent.
   - __Direct discharges to ground water (no zone of treatment)

Describe the cause of the malfunction: _____
_____
_____
_____
_____

9. Please expand on Question #1, above, by checking if any of the following apply:
   ___ A privy, outhouse, latrine or pit toilet is present, a system must be installed
   ___ A system must be upgraded as part of a real property transfer
   ___ A cesspool has been identified during a real property transfer and a conforming system must be installed
   ___ A malfunctioning cesspool has been identified and a conforming system must be installed.

10. Other Approvals/Certification/Waivers/Exemptions (Attach to Application):
   __ Pinelands Commission
   __ Highlands Water Protection and Planning Act
   __ U.S. Army Corps of Engineers
   __ NJDEP-Bureau of Flood Plain Management
   __ Septic System Designer (NJ Engineer) Certification
   __ Other-Specify: _____

11. 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 _____ Date_____

FOR AGENCY USE ONLY
__ Application Denied—Reason for Denial/Citation of Rules Violated:
_____
__ Application Approved
__ Application Approved Subject to Approval by NJDEP

Date of Action _____ Signature of Authorized Agent _____

Name and Title _____

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Form 2a-General Site Evaluation Data for Municipality_____ Block ____ Lot ____

1. Name of Site Evaluator (print): _____
2. Business Address of Site Evaluator: _____
3. Business Phone Number of Site Evaluator: _____
4. Special Site Limitations Identified (Check appropriate Categories):
   __ Flood Plains __ Bedrock Outcrops __ Wetlands
   __ Excessively Stony __ Disturbed Ground __ Sink Holes
   __ Sand Dunes __ Steep Slopes
   __ Other—Specify _____
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) Existing Ground Surface
      Elevation Relative to 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) _____
   c) Piezometer B: Depth to Bottom ___ Depth of Water Level (24 hrs) _____
   d) Witnessed by _____ Signature _____ Date _____
8. Attachments (Check items included):
   __ Site Plan
   __ Key Map: Location of Site on U.S.G.S. Quadrangle or Other Accurate Map
   __ Key Map: 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 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 Soil Evaluator _____ Date _____

Signature of Professional Engineer _____ License #_____

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APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACESEWAGE DISPOSAL SYSTEM
Form 2b-Soil Log and Interpretation for Municipality_____ Block ____ Lot ____

1. Log Number ____ Method (Check One): ___ Profile Pit ___ Boring
2. Soil Log:
   Depth (inches) Top-Bottom
   Munsel 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)

3. Ground Water Observations:
   __ Seepage-Indicate Depth _____
   __ 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 Top 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 _____
   ___ Regional Zone of Saturation-Depth to Top _____

5. Soil Suitability Classification:

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 etseq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACESEWAGE DISPOSAL SYSTEM
Form 3a: Soil Permeability Data for Municipality_____ Block ____ Lot _____

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)	Result*

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

2. Design Permeability/Percolation Rate: Specify Test Number _____
□ Average of Test Replicates □ Single Replicate □ Slowest of Replicates

Type of Limiting Zone Identified	Test Number

4. Attachments (Check items included):

__ Form 3b-Tube Permeameter Test Data-Number of Sheets _____
__ 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 Soil Evaluator _____ Date _____
Signature of Professional Engineer _____ License # _____

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APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACESEWAGE DISPOSAL SYSTEM
Form 3b: Tube Permeameter Test Data for Municipality_____ Block____ Lot____

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, L, in inches_____
5. Bulk Density Determination (Disturbed Samples Only):
   Sample Weight (Wt. Tube Containing Sample-Wt. of Empty Tube), grams_____
   Sample Volume (L x 2.54cm/inch x 3.14R^2), 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, H_1_____
   At the End of Each Test Interval, H_2_____
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

9. Calculation of Permeability:
   K, (in/hr) =60 min/hr x r^2/R^2 x L(in)/T(min) x ln (H_1/H_2)
   =60 min/hr x ___/___ x ___/___ x ln(___/___) = _____

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

__ None	__ Cracks	__Worm Channels
__ Root Channels	__ Soil/Tube Contact	__ Compaction
__ Large Gravel	__ Large Roots	__ Smearing
__ Dry Soil	__ 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 Pollution Control Act (N.J.S.A. 58:10A-1 etseq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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

Form 3c: Soil Permeability Class Rating Data for Municipality_____Block___Lot___

1. Test Number ____ Replicate (Letter) ____
2. Sample Depth____ Soil Pit/Boring Number____ Date Collected _____
3. Coarse Fragment Content:
   - Total Weight of Sample, W.T., grams _____
   - Weight of Material Retained on 2 mm sieve, W.C.F., grams_____
   - Wt. % Coarse Fragment (W.C.F./W.T. x 100):_____
4. Oven Dry Weight (24 hrs., 105°C) of 40 Gram Air Dry Sample, grams, Wt _____
5. Hydrometer Calibration, Rc_____
6. Hydrometer calibration temperature (°F) _____

7. Hydrometer Reading-40 seconds, grams, R1_____ Temperature of Suspension, °F____
8. Corrected Hydrometer Reading, grams, R1' _____

9. Hydrometer Reading-2 hours, grams, R2 _____ Temperature of Suspension, °F____
10. Corrected Hydrometer Reading, grams, R2' _____

11. % sand = (Wt. - R1')/Wt. x 100 = (___ - ___)/___ x 100 = _____
12. % clay = R2'/Wt. x 100 = ___/___ x 100 = _____

13. Sieve Analysis:
   a. Oven Dry Wt. (2 hrs., 105°C) Total Sand Fraction (Soil Retained in 0.047 mm sieve), grams_____
   b. Wt. of Fine Plus Very Fine Sand Fraction (Sand Passing 0.25 mm sieve), grams_____
   c. % Fine Plus Very Fine Sand (b/a)_____

14. Soil Morphology (Natural Soil Samples Only):
   Structure of Soil Horizon Tested_____
   Consistence of Soil Horizon Tested: Dry_____ Moist_____

15. Soil Permeability Class Rating (Based upon average textural analysis of this replicate and other replicate samples)_____

16. I hereby certify that the information furnished on Form 3c 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_____

Signature of Professional Engineer_____ License # _____

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

Form 3d: Percolation Test Data for Municipality_____ Block _____ Lot _____

1. Test Number _____ Replicate (Letter)_____ Date Tested_____
2. Depth: _____
3. Pre-soak:_____
   ___ Sandy Textured Soil Only, Shortened Pre-soak-Indicate Time Required for 12 Inches of Water to Drain After Second Filling, Minutes _____
   ___ Four Hour Pre-soak Completed-Indicate Result:
      ___ Test Hole Drained Within 16 to 24 Hours After Pre-soak
      ___ Test Hole Did Not Drain Within 24 Hours After Pre-soak

4. Rate of Fall Data:
   a. Time Interval Selected, Minutes_____
   b. Record the Drop in Water Level During Each Time Interval to the Nearest $1/10^{th}$ inch on the lines below:

Depth of Water, Start of Interval (inches)	Depth of Water, End of Interval (inches)	Drop in Water Level (inches)

5. Percolation Rate:
   a. Time, minutes, Required for a Six-inch Drop in Water Level_____
   b. Percolation Rate = a/6 = _____/6 = _____ min/in

6. I hereby certify that the information furnished on Form 3d 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 _____

Signature of Professional Engineer _____License # _____

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

Form 3e: Piezometer Test Data for Municipality _____ Block _____ Lot _____

1. Test Number _____ Reference Soil Log _____ Date Tested _____

2. Diameter of Soil Auger,in___Depth of Test Hole,in____Inside Radius of Pipe,R, in___

3. Depth to Apparent Static Water Level, in ____

4. Measure and Record:

Water Depth, Start of Interval inches, d_1	Time at Start of Interval	Water Depth, End of Interval inches, d_2	Time at End of Interval	Length of Interval, min, t

5. Depth to Water Level After 24 Hour Stabilization Period, D_{static} in. _____

6. Value of A-parameter _____

7. Calculation of Permeability:

$K, in/hr = [(3.14R^2)/(A \times t)] \times [\ln(d_1-D_{stat}/d_2-D_{stat})] \times 60 \text{ min/hr} =$

[(3.14__)/(__ x __)] x [ln(__-__/__-__)] x 60 min/hr = _____

8. I hereby certify that the information furnished on Form 3e 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 _____

Signature of Professional Engineer _____ License # _____

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APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM
Form 3f: Pit-Bailing Test Data for Municipality_____ Block_____ Lot_____

1. Test Number _____ Reference Soil Log _____ Date Tested _____
2. Using the reference level established, measure and record the following:
   - —Depth to Bottom of Pit, ft, D_{pit} _____
   - —Depth to Water Level after 2 hr. Stabilization Period, ft, D_{water} _____
   - —Depth to Impermeable Stratum, ft, $D_{stratum}$ _____ (if depth is unknown assume it to be 1.5 times the depth of the pit)
   - —Height of Water Level Above Impermeable Stratum, ft, H____ ($H=D_{stratum} - D_{water}$)
   - —Length of Time Interval, T, in minutes _____
3. At the interval chosen, record the following data in the table below:
   - —Time of Measurement, t_n, minutes
   - —Depth of Water Level Below Reference Level, d_n, inches
   - —Water Surface Dimensions, ft: l,w
4. Calculate the following values and enter in the table below:
   - —Water Surface Area, ft², A_n
   - —Water level Risem h_{rise} (Subtract current value of d_n from previous value)
   - —Ave Water Surface Area, ft², A_{av} (Take average of A_n and previous A_n)
   - —Ave. Height of Water Level Above Impermeable Stratum, ft, h (Take ave of d_n and previous value of d_n, convert to ft., and subtract from $D_{stratum}$)
   - —Permeability, in/hr, K_a (Calculate using formula):
     $K_a = [h_{rise}/T] \times [A_{av}/2.27 (H^2 - h^2)] \times 60$ min/hr

t_n	d_n (in.)	l, w (ft²)	A_n, (ft²)	h_{rise} (in)	A_{av} (ft²)	h (ft)	K_a
t0				XXXX	XXXX	XXXX	XXXX
t1							
t2							
t3							
t4							
t0				XXXX	XXXX	XXXX	XXXX
t1							
t2							
t3							
t4							
t0				XXXX	XXXX	XXXX	XXXX
t1							
t2							
t3							
t4							

5. Record the Following Data:

—Final Depth of Pit, D_{pit}, ft _____

—Depth to Impermeable Stratum, ft, $D_{stratum}$ _____
(If no impermeable stratum is encountered assume $D_{stratum} = D_{pit}$)

—Height of Standpipe Above Reference Level, ft, h_{pipe} _____

—Depth to Water Level after 24 hr. Stabilization Period, ft, D_{water} _____
(Take measurement from top of standpipe. Subtract h_{pipe})

—Height of Static Water Level Above Impermeable Stratum, ft, H _____
($H = D_{stratum} - D_{water}$)

—Average Height of Water Level Above Impermeable Stratum, ft, h _____
(Take average of d_n from beginning and end of last time interval recorded in section 4, convert this to ft., subtract from $D_{stratum}$)

6. Re-calculation of K using data from section 5 above and from final time interval of section 4: $K = [h_{rise}/t] \times [A_{av}/2.27(H^2 - h^2)] \times 60$ min/hr

= [__/__] x [__/2.27 (__ - __)] x 60 min/hr = _____

7. I hereby certify that the information furnished on Form 3f 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 _____

Signature of Professional Engineer _____ License # _____

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

Form 3g: Basin Flooding Test Data for Municipality_____ Block_____ Lot____

1. Test Number _____ Reference Soil Log _____ Date Tested _____
2. Depth of Pit, ft _____
3. Area of Pit, ft²_____
4. Description of Rock Substratum Within Test Zone:
   - Type of Rock _____
   - Name of Formation _____
   - Average Fracture Spacing _____
   - Type of Fractures (Check Appropriate Category):
     - ____ Open (Wide), Clean-Width of Openings, mm _____
     - ____ Open (Wide), Infilled with Fines-Width of Openings, mm _____
     - ____ Tight (Closed)
   - Orientation of Fractures:
     - ____ Horizontal (Parallel to Pit Bottom) Or Nearly So
     - ____ Inclined
     - ____ Vertical (Parallel to Sides of Pit) Or Nearly So
   - Hardness of Rock:
     - ____ Rippable with Hand Tools
     - ____ Not Rippable with Hand Tools, Rippable by Machine
     - ____ Not Rippable by Machine, Explosives Used
5. Time of First Basin Flooding _____
   Volume of Water Added, Gal. _____
6. Result of First Basin Flooding:
   - ____ Basin Drained within 24 Hrs.-Indicate Time _____
   - ____ Basin Not Drained within 24 Hrs.
7. Time of Second Basin Flooding _____
   Volume of Water Added, Gal. _____
8. Result of Second Basin Flooding:
   - ____Basin Drained within 24 Hrs.-Indicate Time _____
   - ____ Basin Not Drained within 24 Hrs.

9. I hereby certify that the information furnished on Form 3g 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 etseq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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

Form 4: General Design Data for Municipality _____ Block_____ Lot_____

1. Volume of Sanitary Sewage, gal. _____
   ___ Residential: No. of Dwelling Units ____ Total No. of Bedrooms _____
   ___ 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:_____
   _____
   _____
   _____
   _____

3. System Components

   a) Grease Trap Capacity, gals _____
      Show Calculation Used: _____
   b) Septic Tank Capacities, gals: _____
      First (Single) Compartment: _____ Second Compartment: _____
      Third Compartment: _____
   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____ Total Length _____ Pipe Size _____Spacing _____
   f) Connecting Pipe: Size _____ Length _____
   g) Manifold: Size _____ Length _____
   h) Disposal Field: Type of Installation _____
      Design Permeability (Percolation Rate) _____
      Trenches: Width _____ Total Length _____ Bed: Area _____
   i) Seepage Pits: Design Percolation Rate _____
      Number of Pits _____ Total Percolating Area Provided _____

4. Attachments (Check applicable items):

__ General Plan of Property and System Showing Location of All System Components
__ X-Sections of Each System Component Including Grease Trap, 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 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.

Professional Engineer or Installer Name (print)_____

Signature of Professional Engineer or Installer_____ Date _____

License #_____

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APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM
Form 5: Design of Pressure Dosing System for Municipality_____ Block____ Lot___

1. Configuration of Distribution Network:
   Type of Manifold: _____ End _____ Central
   Distribution Laterals: Number_____ Length, ft ____ Spacing, ins____
   Diameter of Lateral, ins_____ Total Lateral Volume (V_l), gals_____
   Hole Diameter, ins_____ Hole Spacing, ins_____
2. Lateral Discharge Rate:
   Design Pressure Head at Supply End of Laterals (H_p), ft ____
   Hole Discharge Rate (Q), gpm _____ Number of Holes per Lateral (n) ___
   Lateral Discharge Rate, (Q x n) gpm _____
3. Manifold Length, ft ___ Manifold Diameter, ins___ Total manifold Volume (V_m) ____
4. System Discharge Rate, gpm _____
5. Dose Volume:
   Design Volume of Sewage, gal/day _____
   Design Permeability, in/hr _____ or Percolation Rate, min/in _____
   Total Volume of Delivery Pipe (V_p) _____
   Internal Volume of Distribution Network ($V=V_p+V_m+V_l$) _____
   Dose Volume (V_d) _____
6a. Pump Selection:
   Length of Delivery Pipe _____ Diameter of Delivery Pipe _____
   Friction Loss in Delivery Pipe (H_f), ft _____
   Elevation of Dosing Tank Low Water Level _____
   Elevation of Lateral Invert _____
   Elevation Head (H_e), ft _____
   Total Operating Head ($H_t = H_p + H_f + H_e$), ft _____
   Pump Model _____ Rated Horsepower _____
   Pump Discharge Rate at Total Operating Head, gpm _____
6b. Siphon Elevation:
   Length of Delivery Pipe _____ Diameter of Delivery Pipe _____
   Friction Loss in Delivery Pipe (H_f), ft _____
   Velocity Head (H_v), ft _____
   Total Operating Head ($H_t=H_p + H_f + H_v$), ft _____
   Elevation of Lateral Invert _____
   Elevation of Siphon Invert _____
7. I hereby certify that the information furnished on Form 5 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 _____