

Procedures for an Application for a Sewage System Permit

This Package Contains:

1. Northumberland County Application for a Sewage System Permit
2. Ontario Building Code Application for a Permit to Construct or Demolish
3. Proposed Sewage Disposal System Design Form
4. Calculation Sheet
5. Ontario Building Code and Guide Sheet

All forms provided in this package must be completed and returned to the Northumberland County with the appropriate fee.

1. A copy of a property survey must be submitted to complete application.
2. Should your property fall within a conservation authority or environmental protection zone, approval from the authorizing body must be provided.
3. Other approved sewage systems (B.M.E.C. approved) will require a copy of the B.M.E.C. approval for that system, and once completed will require submission of "as built" drawings and the maintenance agreement.

The Building Code Act does not allow the issuance of permits based on incomplete applications.

Sewage System Inspectors can only provide comments based on complete applications and plans. Therefore, incomplete applications may be returned to the Owner, or their Authorized Agent.

Once the completed application has been reviewed, an inspector will visit the property to inspect the test hole and site. The applicant will be either issued a permit to install the system or the reasons provided as to why a permit cannot be issued.

Information provided in this package is limited, and it is the responsibility of the applicant to ensure compliance with all applicable sections of the Ontario Building Code. The applicant should also keep a copy of all documents submitted.

OFFICE USE ONLY
File Number: _____
Fee Receipt Number: _____
Date Fee Received: _____

Application for a Sewage System Permit

Ontario Regulation 350/06

Personal information contained on this form is collected under the authority of the Building Code Act 2006. It is used to facilitate the issuance of a Sewage System Permit as prescribed in Section 8 of the Act. Questions about this collection should be addressed to the Senior Sewage Inspector, 555 Courthouse Road, Cobourg, Ontario, K9A 5J6

1. NAME OF OWNER: _____ TEL. NO.: _____

PRIMARY MAILING ADDRESS: _____

Number/Unit, Street
Town/City
Postal Code

2. PROPOSE TO: _____ A _____ OR _____

Install or Repair
Holding tank, Leaching Bed System, Filter Bed, Other Treatment Unit and/or system
Other (Privy, Greywater System). If other than a privy, specify make and model number

3. TYPE OF BUILDING: _____ ROLL #: _____
(Single Family Dwelling, Apartment Building, Motel, etc.)

4. PROPOSED DEVELOPMENT LOCATION: _____

County/City
Township, Municipality
Lot #
Conc. #
Plan #

Sub Lot #
Lot size
Civic (Emergency Fire, 911) #
Street

5. STATE THE NUMBER OF:
(Includes guest cabins, bunkies, basements etc.)

Bedrooms
Showers & Bathtubs
Hand Wash Basins
Laundry Units
Toilets
Kitchen Sinks

NOTE: Do not drain water treatment devices into sewage system.

6. TOTAL AREA OF LIVING SPACE ON PROPERTY (includes guest cabins, bunkies, etc.): _____ m²

Is there more than one building on the property? Yes No

Is there more than one sewage system on the property? Yes No

7. WATER SUPPLY: Dug well Municipal System Drilled Well (Depth of Steel Casing) _____ Metres
 Surface Water Other _____
 Proposed or Existing

NOTE: We require the type and location of any well on neighbouring properties be provided.

8. NAME OF AUTHORIZED AGENT (If other than owner, print): _____ TEL. NO.: _____
Please provide owner's signature or authorization letter.

9. I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT AND THAT, IF APPROVED, THE WORK WILL CONFORM WITH PROVINCIAL REQUIREMENTS FOR SEWAGE SYSTEMS AND LOCAL MUNICIPAL BYLAWS.

NAME OF OWNER OR AUTHORIZED AGENT (Please Print) SIGNATURE OF OWNER OR AUTHORIZED AGENT DATE OF APPLICATION

IMPORTANT INFORMATION!

- A. Please attach a cheque or money order (Canadian funds) for the required fee, payable to Northumberland County
- B. If the application is for a holding tank, a signed pump-out agreement must be attached.
- C. To determine the type and depth of soil in the proposed leaching bed, a TEST PIT must be excavated to a MINIMUM DEPTH of 1.5 metres (or at least to rock or water) prior to inspection. Please advise when test hole is ready. It is suggested that a protective cover be placed over the hole.

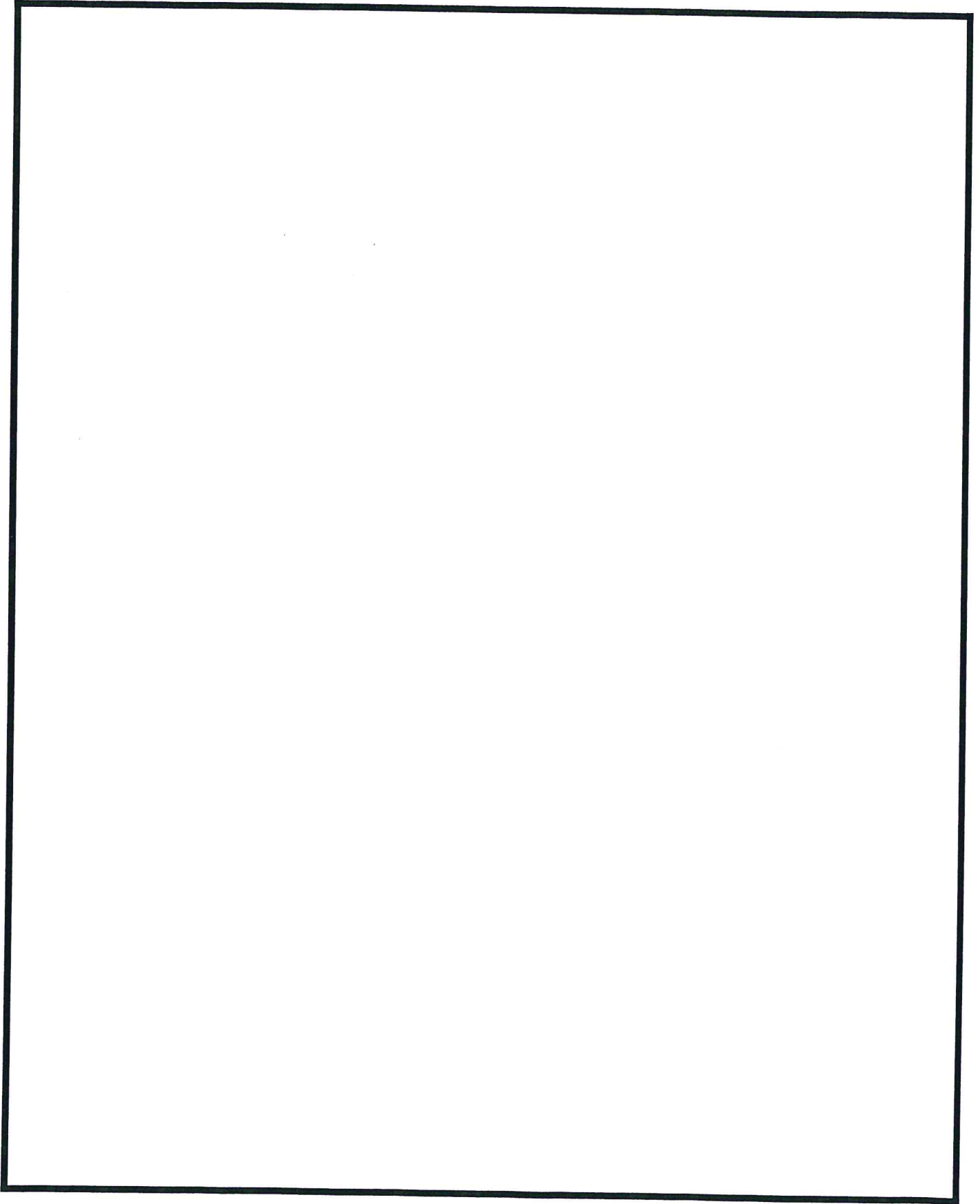
NOTE: IS THE TEST HOLE READY? _____ The inspection of the property will not be made until you notify us that a test hole has been provided.

THE REVERSE SIDE OF THIS APPLICATION MUST BE COMPLETED!

Northumberland County
555 Courthouse Road
Cobourg, Ontario
K9A 5J6
905-372-1929

DIRECTIONS TO PROPERTY

(Show Highway No., Secondary Roads, Signs to Follow, Landmarks, 911 Address, etc.)

A large, empty rectangular box with a thick black border, intended for a hand-drawn map or diagram showing directions to the property. The box is currently blank.

Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the *Building Code Act, 1992*

For use by Principal Authority				
Application number:		Permit number (if different):		
Date received:		Roll number:		
Application submitted to: _____ (Name of municipality, upper-tier municipality, board of health or conservation authority)				
A. Project information				
Building number, street name		Unit number	Lot/con.	
Municipality	Postal code	Plan number/other description		
Project value est. \$		Area of work (m ²)		
B. Purpose of application				
New construction	Addition to an existing building	Alteration/repair	Demolition	Conditional Permit
Proposed use of building		Current use of building		
Description of proposed work				
C. Applicant				
Applicant is:		Owner or	Authorized agent of owner	
Last name		First name	Corporation or partnership	
Street address			Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ()	Fax ()	Cell number ()		
D. Owner (if different from applicant)				
Last name		First name	Corporation or partnership	
Street address			Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ()	Fax ()	Cell number ()		

E. Builder (optional)			
Last name	First name	Corporation or partnership (if applicable)	
Street address			Unit number Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ()	Fax ()	Cell number ()	
F. Tarion Warranty Corporation (Ontario New Home Warranty Program)			
i. Is proposed construction for a new home as defined in the <i>Ontario New Home Warranties Plan Act</i> ? If no, go to section G.			Yes No
ii. Is registration required under the <i>Ontario New Home Warranties Plan Act</i> ?			Yes No
iii. If yes to (ii) provide registration number(s): _____			
G. Required Schedules			
i) Attach Schedule 1 for each individual who reviews and takes responsibility for design activities.			
ii) Attach Schedule 2 where application is to construct on-site, install or repair a sewage system.			
H. Completeness and compliance with applicable law			
i) This application meets all the requirements of clauses 1.3.1.3 (5) (a) to (d) of Division C of the <i>Building Code</i> (the application is made in the correct form and by the owner or authorized agent, all applicable fields have been completed on the application and required schedules, and all required schedules are submitted). Payment has been made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the <i>Building Code Act, 1992</i> , to be paid when the application is made.			Yes No
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the <i>Building Code Act, 1992</i> .			Yes No
iii) This application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the <i>Building Code Act, 1992</i> which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.			Yes No
iv) The proposed building, construction or demolition will not contravene any applicable law.			Yes No
I. Declaration of applicant			
I _____ declare that:			
(print name)			
1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.			
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.			
Date		Signature of applicant	

Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			
Building number, street name		Unit no.	Lot/con.
Municipality	Postal code	Plan number/ other description	
B. Individual who reviews and takes responsibility for design activities			
Name		Firm	
Street address		Unit no.	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ()	Fax number ()	Cell number ()	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]			
House	HVAC – House	Building Structural	
Small Buildings	Building Services	Plumbing – House	
Large Buildings	Detection, Lighting and Power	Plumbing – All Buildings	
Complex Buildings	Fire Protection	On-site Sewage Systems	
Description of designer's work			
D. Declaration of Designer			
I _____ declare that (choose one as appropriate): (print name)			
I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____			
I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____			
The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____			
I certify that:			
1. The information contained in this schedule is true to the best of my knowledge.			
2. I have submitted this application with the knowledge and consent of the firm.			
_____ Date _____		_____ Signature of Designer _____	

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) (c) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of practice, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

Proposed Sewage Disposal System Design

Owner of Property: _____

1. TOTAL DAILY DESIGN SEWAGE FLOW: _____ LITRES PER DAY

2. NATIVE SOIL PERCOLATION RATE: _____ MIN/CM

3 SEPTIC TANK SIZE: _____ LITRES

4. LEACHING BED DESIGN: **Complete A or B, C & D** (if space is available, we always recommend an absorption trench system)

A. Absorption Trench System _____ metres of trench

Please indicate the depth of the bottom of the stone layer either above or below original grade:*

Bottom of Stone Layer _____ metres Below/Above Original Grade (please circle)

B. Filter Bed Size _____ m² Filter Sand Contact Area _____ m²

Please indicate the depth of the bottom of the stone layer either above or below original grade:*

Bottom of Stone Layer _____ metres Below/Above Original Grade (please circle)

C. Tertiary Sewage System Type _____ Model _____

Stone Area _____ Sand Area _____

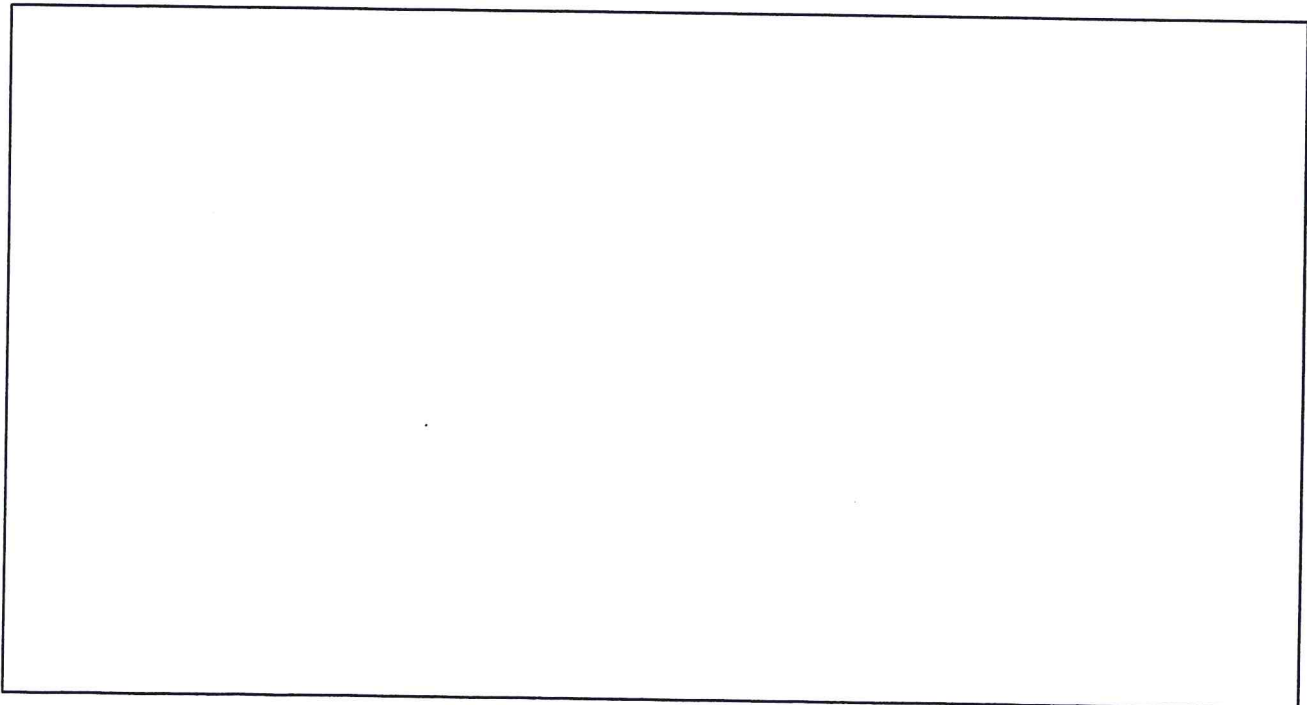
D. Loading Rate Area _____ m² **E. 15 m Extended Sand Area (mantle)**

Constructed Native (Circle)

* Note: At least 900mm above the high ground water table, rock or soil with a percolation time greater than 50 minutes.

Side View Profile of Sewage System

NOTE: Show elevation above water table, bedrock or impermeable layer, existing grade etc.
Show elevation of finished grade with respect to original grade.



Calculation Sheet

Ontario Building Code Proposed Requirements - Residential Sewage Disposal System

Name: _____ Address: _____ Tel: () _____

1. Sewage Flow

a) Number of bedrooms: _____ = _____ Litres (1)

ADD

b) Living Space: _____ m²
 Each 10 m² over 200 m² up to 400 m²: _____ x 100 = _____ Litres
 Each 10 m² over 400 m² up to 600 m²: _____ x 75 = _____ Litres

Total: _____ Litres (2)

OR ADD (whichever is the larger flow)

c) Total Fixture Units: _____
 Each Fixture Unit over 20: _____ x 50 = _____ Litres (3)

Total Sewage Flow: (Q) (Add 1 + 2 or 3) _____ Litres

2. Septic Tank Size

Residential Occupancy: _____ Sewage Flow: _____ x 2 = _____ Litres (Minimum - 3600 Litres)

3. Leaching Bed Size

Length of Pipe = $\frac{\text{Sewage Flow} \times \text{Percolation Time}}{200}$

$L = \frac{QT}{200} = \frac{\text{_____} \times \text{_____}}{200} = \text{_____}$ m. of trench _____ ft. of trench
 Rounded to: _____ m. of trench _____ ft. of trench

4. Loading Rate for Fill-Based Absorption Trenches and Filter Beds

Loading Rates	Percolation Time	Loading Rate (L/m ² /day)
	1-20	10
	20-35	8
	35-50	6
	> 50	4

Sewage Flow ÷ Loading Rate = m² of contact area
 _____ ÷ _____ = _____ m² of contact area

5. Filter Bed Size

Sewage Flow < 3000 Litres/Day: Sewage Flow ÷ 75 = m²
 _____ ÷ 75 = _____ m² of filter bed

Sewage Flow > 3000 Litres/Day: Sewage Flow ÷ 50 = m²
 _____ ÷ 50 = _____ m² of filter bed

SOIL CONDITION	
Depth (metres)	Soil Type
0	_____
0.5	_____
1.0	_____
1.5	_____
Show Rock Elevation _____	
Show Water Table _____ W _____	

6. Filter Bed Contact Area of Filter Sand

Area = $\frac{\text{Sewage Flow} \times \text{Percolation Rate}}{850}$ = m² of contact area

$A = \frac{QT}{850} = \frac{\text{_____} \times \text{_____}}{850} = \text{_____}$ m² of contact area

Expanded contact area is to be no less than the filter bed size.

Owner/Contractor/Designer's Name: _____

Signature: _____

Date: _____

Ontario Building Code & Guides

Table 7.9.4.3.
Minimum Permitted Size of Fixture Outlet Pipe and Hydraulic Loads for Fixtures

Fixture	Min. Size of Fixture Outlet Pipe, in.	Hydraulic Load, fixture units
Autopsy table	1½	2
Bathroom group		
a) with flush tank		6
b) with direct flush valve		8
Bath tub (with or without shower)	1½	1½
Bath tub: foot, sitz, or slab	1½	1½
Bed pan washer	3	6
Beer cabinet	1½	1½
Bidet	1¼	1
Chinese range	1½	3
Clothes washer		
a) domestic	N/A	1½ with 1½ in. trap
b) commercial	N/A	2 with 1½ in. trap
Dental unit or cuspidor	1¼	1
Dishwasher		
a) domestic	1½	½
b) commercial type	2	3
Drinking fountain	1¼	½
Fish tank or tray	1½	1½
Floor drain	2	2 with 2 in. trap 3 with 3 in. trap
Garbage grinder	2	3
Icebox	1¼	1
Laundry tray		
a) single or double units or 2 single units with common trap	1½	1½
b) 3 compartments	1½	2
Lavatory		
a) barber or beauty parlor	1½	1½
b) dental	1¼	1
c) domestic type single, or 2 single with common trap	1¼	1 with 1½ in. trap 1½ with 1½ in. trap
d) multiple or industrial type	1½	3
Potato Peeler	2	3
Shower drain		
a) from 1 head	1½	1½
b) from 2 or 3 heads	2	3
c) from 4 to 6 heads	3	6
Sink		
a) domestic and other small type with or without garbage grinders, single, double, or 2 single with a common trap	1½	1½
b) other sinks	1½	1½ with 1½ in. trap 2 with 2 in. trap 3 with 3 in. trap
Urinal		
a) pedestal, siphon jet or blowout type	2	4
b) stall, washout type	2	2
c) wall		
i) washout type	1½	1½
ii) other types	2	3
Water closet		
a) with flush tank	3	4
b) with direct flush	3	6

Table 8.2.1.3.A.
Residential Occupancy

Residential Occupancy	Volume (litres)
Apartments, Condominiums, Other Multi-family Dwellings - per person ¹	275
Boarding Houses	
a) Per person,	
i) with meals and laundry facilities, or,	200
ii) without meals or laundry facilities, and	150
b) Per non-resident staff per 8 hour shift	40
Boarding School - per person	300
Dwellings	
a) 1 Bedroom Dwelling	750
b) 2 Bedroom Dwelling	1100
c) 3 Bedroom Dwelling	1600
d) 4 Bedroom Dwelling	2000
e) 5 Bedroom Dwelling	2500
f) Additional flow for ²	
i) each bedroom over 5,	500
ii) A) each 10 m ² (or part thereof) over 200 m ² up to 400 m ² ² ,	100
B) each 10 m ² (or part thereof) over 400 m ² up to 600 m ² ² , and	75
C) each 10 m ² (or part thereof) over 600 m ² ² , or	50
iii) each fixture unit over 20 fixture units	50
Hotels and Motels (excluding bars and restaurants)	
a) Regular, per room	250
b) Resort hotel, cottage, per person	500
c) Self-service laundry, add per machine	2500
Work Camp/Construction Camp, semi-permanent per worker	250

Table 8.2.1.5.
Clearance Distances for Sewage Systems

Clearance Distances for Class 1, 2 and 3 Sewage Systems				
	Minimum horizontal distance in metres from a spring used as a source of potable water or well other than a well with a watertight casing to a depth of at least 6 m.	Minimum horizontal distance in metres from a lake, river, pond, stream, reservoir, or a spring not used as a source of potable water.	Minimum horizontal distance in metres from a Property Line.	
Earth Pit	15	30	15	3
Privy				
Privy Vault	10	15	10	3
Pail Privy				
Greywater System	10	15	15	3
Cesspool	30	60	15	3

Table 8.2.1.6.A.
Minimum Clearances for Treatment Units

Structure	1.5 m
Well	15 m
Lake	15 m
Pond	15 m
Reservoir	15 m
River	15 m
Spring	15 m
Stream	15 m
Property Line	3 m

Note:

1. All clearance distances are increased by twice the height that the leaching bed/filter bed is raised above the original ground.
2. Clearances may be increased to to municipal bylaws.

Table 8.2.1.6.B.
Minimum Clearances for Distribution Pipe

Structure	5 m
Well with a watertight casing to a depth of 6 m	15 m
Any other well	30 m
Lake	15 m
Pond	15 m
Reservoir	15 m
River	15 m
A spring not used as a source of potable water	15 m
Stream	15 m
Property Line	3 m

Table 8.2.1.6.C.
Minimum Clearances for Holding Tanks

Structure	1.5 m
Well with a watertight casing to a depth of at least 6 m	15 m
Any other well	15 m
A spring	15 m
Property Line	3 m

NOTE: Greywater systems must be maintained at least 5 metres from any structure.

Table 2.
Soil Percolation Rates

Soil Type (unified soil classification)	Coefficient of Permeability K - cm/sec.	Percolation Time - T mins/cm.	Comment
Coarse Grained - More than 50% larger than #200			
G.W. - Well graded gravels, gravel-sand mixtures, little or no fines.	10^{-1}	<1	very permeable unacceptable
G.P. - Poorly graded gravels, gravel-sand mixtures, little or no fines.	10^{-1}	<1	very permeable unacceptable
G.M. - Silty gravels, gravel sand-silt mixtures.	10^{-2} - 10^{-4}	4-12	Permeable to medium permeable depending on amount of silt.
G.C. - Clayey gravels, gravel-sand-clay mixtures.	10^{-4} - 10^{-6}	12-50	Important to estimate amount of silt and clay.
S.W. - Well-graded soils, gravelly sands, little or no fines.	10^{-1} - 10^{-4}	2-12	medium permeability
S.P. - Poorly graded sands, gravelly sand, little or no fines.	10^{-1} - 10^{-3}	2-8	medium permeability
S.M. - Silty sands, sand-silt mixtures.	10^{-3} - 10^{-5}	8-20	medium to low permeability
S.C. - Clayey sands, sand-clay mixtures.	10^{-4} - 10^{-6}	12-50	medium to low permeability (depends on amount of clay)

Table 3.
Approximate Relationship of Soil Types to Permeability and Percolation Time

Soil Type (unified soil classification)	Coefficient of Permeability K - cm/sec.	Percolation Time - T mins/cm.	Comment
Fine Grained - More than 50% passing #200			
M.L. - Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, clayey silts with slight plasticity.	10^{-5} - 10^{-6}	20 - 50	medium to low permeability
C.L. - Inorganic clays of low to medium plasticity gravelly clays, sandy clays, silty clays, lean clays.	10^{-6} and less	over 50	unacceptable
O.L. - Organic silts, organic silty clays of low plasticity; liquid limit less than 50	10^{-5} and less	20 - over 50	acceptable depends on clay content
M.H. - Inorganic silts, micaceous or diatomaceous fine sandy soil or silty soils, elastic silts	10^{-6} and less	over 50	unacceptable
C.H. - Inorganic clays of medium to high plasticity, organic silts	10^{-7} and less	over 50	unacceptable
O.H. - Organic clays of medium to high plasticity- organic silt; liquid limit over 50	10^{-6} and less	over 50	unacceptable