

Schedule 3A: Sewage System Specifications

A. Proposed Sewage System <input type="checkbox"/> Residential <input type="checkbox"/> Commercial									
<input type="checkbox"/> New Installation <input type="checkbox"/> Replacement <input type="checkbox"/> Alteration <input type="checkbox"/> Repair									
B. Proposed Sewage System Type									
<input type="checkbox"/> CLASS 2 – LEACHING PIT (Limited Use)					<input type="checkbox"/> CLASS 3 – CESS POOL (Restricted Use)				
<input type="checkbox"/> CLASS 4 – SEWAGE SYSTEM					<input type="checkbox"/> CLASS 5 – HOLDING TANK (Temporary or Limited Use)				
C. Building Information									
Plumbing Fixtures (Include roughed-in plumbing and proposed additions (future basement bathroom)									
Description	# Existing	+	#New (Proposed)	=	Total	x	Fixture Unit	=	Count
<i>Example; Sink</i>	0	+	1	=	1	x	1.5	=	1.5
Bath Group -toilet/sink/shower		+		=		x	6	=	
Sinks/Wash Basins		+		=		x	1.5	=	
Bathtub>Showers		+		=		x	1.5	=	
Toilets (flush tank)		+		=		x	4	=	
Dishwasher		+		=		x	1.5	=	
Laundry Tub/Washer Machine		+		=		x	1.5	=	
Water Softener backwashes into Sewage System? <input type="checkbox"/> Yes <input type="checkbox"/> No						TOTAL FIXTURE UNITS		=	
Volume of Backwash _____ <input type="checkbox"/> Gal <input type="checkbox"/> Litres									
D. Design Flow Calculations (Q)									
BEDROOM FLOWS (A)	# of BEDROOMS		Number	Volume (litres)	Total Flow	FINISHED FLOOR AREA (M ²)			
	<input type="checkbox"/>	1 Bedroom		750		FIRST FLOOR			
	<input type="checkbox"/>	2 Bedrooms		1100		SECOND FLOOR			
	<input type="checkbox"/>	3 Bedrooms		1600		THIRD FLOOR			
	<input type="checkbox"/>	4 Bedrooms		2000		TOTAL			
<input type="checkbox"/>	5 Bedrooms		2500		DESIGN FLOW "Q"				
Extra Bedroom Over 5 (B)	<input type="checkbox"/>	Each Bedroom		500		Q = A + (B or C or D)			
LIVING AREA FLOWS (C)	<input type="checkbox"/>	Each 10m ² over 200m ² - 400m ²		100		A = _____			
	<input type="checkbox"/>	Each 10m ² over 400m ² - 600m ²		75		B = _____			
	<input type="checkbox"/>	Each 10m ² >600m ²		50		C = _____			
FIXTURE COUNT FLOW (D)	<input type="checkbox"/>	Each Fixture over 20 fixture units		50		D = _____			
						Q = _____ litres/day			
E. Septic Tank Size (Working Capacity) <input type="checkbox"/> New CSA B66 Standard <input type="checkbox"/> Existing <input type="checkbox"/> Replacement									
<input type="checkbox"/> Residential: Min. Tank Size = 2 x Q <input type="checkbox"/> Non-Residential: Min. Tank Size = 3 x Q					Proposed/Existing Working Capacity = _____ Litres				
F. Other Treatment Unit <input type="checkbox"/> Tertiary <input type="checkbox"/> Secondary									
Manufacturer _____			Model _____			BMEC # _____			

Schedule 3B: Soil Design Criteria and Site Evaluation

A. Percolation Rate of Design Soil (T)

Percolation Rate of Design Soil T = _____ min/cm <input type="checkbox"/> Native <input type="checkbox"/> Imported	Percolation Rate of Mantle Sand T = _____ min/cm <input type="checkbox"/> Native <input type="checkbox"/> Imported	<input type="checkbox"/> Laboratory Analysis <input type="checkbox"/> Lab Report Attached
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Note: The Town of The Blue Mountains requires documentation on the soils proposed to be used by a certified soil technician to determine the percolation rate ("T"-time) for conventional type fields or its suitability for filter bed sand in filter bed systems.
 All reports must be dated within 12 months of construction.

B. Percolation Rate and Classification of Native Soil

Laboratory Analysis (Attached Report)
 Test on Site (Test Pit)
 Estimated (Unified System)

TEST PIT SOIL DATA

TEST PIT #1			TEST PIT #2		
Rock or Ground Water Table	Depth (metres)	Description of Soil	Rock or Ground Water Table	Depth (metres)	Description of Soil
	- 0 -			- 0 -	
	- 0.25 -			- 0.25 -	
	- 0.50 -			- 0.50 -	
	- 0.75 -			- 0.75 -	
	- 1.00 -			- 1.00 -	
	- 1.25 -			- 1.25 -	
	- 1.50 -			- 1.50 -	
	- 1.80 -			- 1.80 -	
Depth to Groundwater		_____ m	Depth to Groundwater		_____ m
Seasonal High Groundwater		_____ m	Seasonal High Groundwater		_____ m
Depth to Bedrock		_____ m	Depth to Bedrock		_____ m

ESTIMATED PERCOLATION RATE OF NATIVE SOIL

	T-time (Min/cm)	Soil Type (Unified Soil Classification System)	
<input type="checkbox"/>	4 – 12	Gravel, Sand Mix, some fines	GM – Permeable to medium permeable, depending on amount of silt.
<input type="checkbox"/>	12 – 50	Clayey Gravel, gravel-sand-clay mixtures	GC – Important to estimate amount of silt and clay.
<input type="checkbox"/>	2 – 12	Gravel, Sand Mix, some fines	SW – Medium permeability
<input type="checkbox"/>	2 – 8	Gravelly Sand, uniform, some fines	SP – Medium permeability
<input type="checkbox"/>	8 – 20	Silty Sand / Loam Mix	SM – Medium to low permeability
<input type="checkbox"/>	12 – 50	Clayey Sand/Silty Loam Mix	SC - Medium to low permeability depending on amount of clay
<input type="checkbox"/>	20 – 50	Inorganic silts/Clayey Silts	ML – Medium to low permeability

T = _____ min./cm

Percolation Time between 10 and 20 min/cm is ideal.

Schedule 3C: Class 4 Sewage System

- Conventional Leaching Bed : Where "T" is 1 to 50 min/cm and 900mm clearance from bedrock/high water table
- Raised Leaching Bed: Where "T" is <1 or >50 min/cm with imported fill
- Filter Bed System: Limited space with stone and sand filter
- Shallow Buried Trench System – Designed by a Qualified Designer – Documents attached

A. ABSORPTION TRENCH		<input type="checkbox"/> In-ground	<input type="checkbox"/> Raised	<input type="checkbox"/> Partially Raised															
<p><input type="checkbox"/> Length of Distribution Pipe (T= ≤ 50 min/cm):</p> <p>$L = QT/200$ $L = \underline{\hspace{2cm}} \text{ m}$</p> <p>L = length of distribution pipe (min. 40m required)</p> <p>Q = daily design flow in litres</p> <p>T = percolation time of underlying soil (max. 50 min/cm)</p>	<p>Loading Rates (LRM)</p> <p>Fill-Based Trenches and Filter Beds</p> <p>(Table 8.7.4.1.A. OBC)</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 5px auto;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 70%;">Percolation Time of Soil (T), (min/cm)</th> <th style="width: 25%;">Loading Rates (L/m²)/day</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">$1 < T \leq 20$</td> <td style="text-align: center;">10</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">$20 < T \leq 35$</td> <td style="text-align: center;">8</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">$35 < T \leq 50$</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">$T > 50$</td> <td style="text-align: center;">4</td> </tr> </tbody> </table>					Percolation Time of Soil (T), (min/cm)	Loading Rates (L/m ²)/day	<input type="checkbox"/>	$1 < T \leq 20$	10	<input type="checkbox"/>	$20 < T \leq 35$	8	<input type="checkbox"/>	$35 < T \leq 50$	6	<input type="checkbox"/>	$T > 50$	4
	Percolation Time of Soil (T), (min/cm)	Loading Rates (L/m ²)/day																	
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<input type="checkbox"/>	$T > 50$	4																	
<p><input type="checkbox"/> Length of Distribution Pipe (T= >50 min/cm):</p> <p>$L = QT/40$ $L = \underline{\hspace{2cm}} \text{ m}$</p> <p>L = length of distribution pipe (min. 40m required)</p> <p>Q = daily design flow in litres</p> <p>T = percolation time of underlying soil (greater than 50 min/cm)</p>	<p><input type="checkbox"/> Loading Area(A): $Q /LRM= \underline{\hspace{2cm}} \text{ m}^2$</p> <p style="font-size: small;">A = area in m² LRM= Loading Rate (see above table)</p> <p><input type="checkbox"/> Established Benchmark $\underline{\hspace{2cm}} \text{ m}$</p>																		
<p><input type="checkbox"/> Length of Distribution Pipe (With Treatment Unit):</p> <p>$L = QT/300$ $L = \underline{\hspace{2cm}} \text{ m}$</p> <p>L = length of distribution pipe (min. 40m required)</p> <p>Q = daily design flow in litres</p> <p>T = percolation time of underlying soil (greater than 50 min/cm)</p>	<p><input type="checkbox"/> Dose Pump Required <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="font-size: small;">(Required if total distribution pipe is 150m or more)</p> <p>Pump Size <input type="checkbox"/> 3" Diam. $V = 3.3 \times L$ $\underline{\hspace{2cm}}$</p> <p style="padding-left: 40px;"><input type="checkbox"/> 4" Diam. $V = 5.9 \times L$ $\underline{\hspace{2cm}}$</p> <p style="font-size: x-small;">L = total length of distribution pipe in the leaching bed V = effluent volume pumped per cycle in litres</p>																		
BMEC Approved Trench System or Treatment Unit																			
<p>Manufacturer</p> <p>$\underline{\hspace{3cm}}$</p>	<p>BMEC #</p> <p>$\underline{\hspace{3cm}}$</p>	<p><input type="checkbox"/> Dose Pump Required <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="font-size: small;">(Required if total distribution pipe is 150m or more)</p> <p>Pump Size <input type="checkbox"/> 3" Diam. $V = 3.3 \times L$ $\underline{\hspace{2cm}}$</p> <p style="padding-left: 40px;"><input type="checkbox"/> 4" Diam. $V = 5.9 \times L$ $\underline{\hspace{2cm}}$</p> <p style="font-size: x-small;">L = total length of distribution pipe in the leaching bed V = effluent volume pumped per cycle in litres</p>																	
<p>Length of Trench based on BMEC Report: $L = \underline{\hspace{2cm}} \text{ m}$</p>																			
B. FILTER BED		<input type="checkbox"/> In-ground	<input type="checkbox"/> Raised	<input type="checkbox"/> Partially Raised 8.7.5. OBC															
<p>1. Effective Filter Bed Area:</p> <p><input type="checkbox"/> Q = 3,000 litres/day or less $Q/75 = \underline{\hspace{2cm}} \text{ m}$</p> <p><input type="checkbox"/> Q = Over 3,000 litres/day $Q/50 = \underline{\hspace{2cm}} \text{ m}$</p>	<p><input type="checkbox"/> Pump Required <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Pump Size <input type="checkbox"/> 3" Diam. $V = 3.3 \times L$ $\underline{\hspace{2cm}}$</p> <p style="padding-left: 40px;"><input type="checkbox"/> 4" Diam. $V = 5.9 \times L$ $\underline{\hspace{2cm}}$</p> <p style="font-size: x-small;">L = total length of distribution pipe in the leaching bed V = effluent volume pumped per cycle in litres</p>																		
<p>2. Contact Area: $Q \times T/850 = \underline{\hspace{2cm}} \text{ m}^2$</p>																			
<p>3. Mantle Area : $Q/LRM = \underline{\hspace{2cm}} \text{ m}^2$</p> <p><input type="checkbox"/> Established Benchmark $\underline{\hspace{2cm}} \text{ m}$</p>																			
C. WATER SUPPLY		<input type="checkbox"/> Existing	<input type="checkbox"/> Proposed																
<p><input type="checkbox"/> Municipal <input type="checkbox"/> Drilled Well <input type="checkbox"/> Dug or Bored Well <input type="checkbox"/> Other</p>																			
<p>Note: All wells within 30 metres, in use or abandoned, must be shown on the site plan.</p>																			
<p>COMMENTS:</p> <hr/> <hr/> <hr/> <hr/>																			

Schedule 3D: Site Plan and Cross Section

Where a new dwelling or building is proposed, a drainage and grading plan prepared by a Professional Engineer or an Ontario Land Surveyor shall indicated the location of the proposed sewage system and components - where required by the Town’s Fill and Grade By-law 2002-78.

SITE PLAN

N

CROSS SECTION

The site plan and cross section is required and must contain the following information:

- Location and dimensions of all buildings
- All wells in use or abandoned within a 30 metre (100 ft) radius of the proposal
- All existing and proposed structures and swimming pools
- The location of any unsuitable, disturbed or compacted areas
- Any slopes (include slope degree and direction)
- The cross-sectional view of the proposal which includes house, tank and tile bed elevations as well as existing and finished ground levels or grades (recommend bench mark for tiles)
- All water bodies and ditches, drain tiles, swamps, flood plain or areas prone to flooding
- All driveways and proposed access routes for septic system in maintenance
- All field drains, underground hydro, water services and basement drains
- Proposed system layout including all system components including mantles and their setbacks from structures, lot lines and wells.