CLASS 2 SYSTEM DESIGN CALCULATIONS GREYWATER LEACHING PIT

To be submitted with application package

DAILY SEWAGE FLOW CALCULATION

Based on hydraulic loads of all attached fixtures

	FIXTURES			
Plumbing Fixture Description	Total # of Fixtures in Final Project Design	Unit	Total # of Fixture Units	The "Fixture Unit" is based on trap
Washbasin		x 1.5 =		size and expected
Bathtub or Shower		x 1.5 =		use (residential
Kitchen Sink		x 1.5 =		vs. commercial)
Bar Sink		x 1.5 =		from table 7.4.9.3
Dishwasher		x 1.5 =		in the plumbing
Washing Machine		x 1.5 =		section of the
Laundry Tub		x 1.5 =		code.
Other				
	•			
	Total Fixture	• Units =		

The total daily design flow leaching pit is:

a. 200L per fixture unit where there is pressurized water (including gravity fed holding tank).

b. 125L per fixture where there is <u>no</u> pressurized water (i.e. hand pumped/hauled).

Pressurized water supply	# Fixture Unitsx 200 L =	Litres per day (Q)
Non-pressurized water supply	# Fixture Unitsx 125 L =	Litres per day (Q)

Note: If your calculated daily design flow is more than 1000L, you cannot construct a greywater leaching pit. Consider installing either a) a Class 4 system, or b) multiple greywater pits.

DAILY DESIGN FLOW (Q) = _____ Litres

PROPERTY SOIL PROFILE AND PERCOLATION RATE (T) DESCRIPTION

Please refer to the APH website pages titled **Property Soil Profile & Percolation Rate** to find how to determine the percolation rate of the soil on your site. Percolation rate (T) is measured as minutes per centimetre, and measures the rate at which water drains into the soil. Please indicate the (T) of your site below.

Soil Type	Coarse Gravel, no fines	Gravel, some small rocks	Gravel- sand mix, some fines	Sand, fairly uniform, some fines	Sandy- Ioam mix	Silty- Ioam, almost clay	Clay. Smears well, rolls into ribbons
Percolation Rate (T)	0 to 1	1 to 5	5 to 10	10 to 15	15 to 25	25 to 50	>50

SOIL LOADING RATE AND CONTACT AREA CALCULATIONS

The Loading Rate (LR) is the volume of greywater the soil can accept in a day, and is expressed as Litres per m^2 per Day. To calculate the Loading Rate (LR) divide 400 by the Percolation Rate (T) of the soil. Use the highest value of (T) from the range matching your soil description above (e.g. if the range is 10 to 15, use 15).

Divide your Daily Design Sewage Flow (Q) by the above calculated Loading Rate (LR) for the minimum Contact Area.

Contact Area	(Q) ÷ (LR) =	m ² (CA)
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For a square-shaped leaching pit, you can divide the Contact Area (CA) by 4 to figure out how big each of the side walls have to be.

Area of Each Wall	(CA) ÷ 4 =	m²
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To convert to square feet multiply m² by 10.76

TRANSFER THE ABOVE CALCULATIONS TO THE APPROPRIATE PLACES ON THE "DESIGN LAYOUT ON-SITE SEWAGE SYSTEMS AND BUILDING PERMITS" FORM

YOU MUST STILL SUBMIT THESE PAGES WITH YOUR APPLICATION



DESIGN LAYOUT ON-SITE SEWAGE SYSTEMS AND BUILDING PERMITS

ROLL NUMBER:					OWN	IER:							
PROPERTY ADDRESS:					DESIGN	IER:				EF/W	BF#:		
LEGAL DESCRIPTION:					INSTALL	ER:					BCIN:		
FROM YOUR WORKSHEET	NO. OF BEDROOM	S OR	SIZE OF FINIS	SHED	TOTAL DAILY	/ DESIGI	N SEWAGE		PROPOSE	D WAT	ER SUPPI	Y	
					Q =	NLO		I	MUNICIPAL		PRIV	ATE	
CLASS 1,2,3 SEWAGE SY	STEM PROPOS	SAL DE	TAILS		-			DUG	BORED WELL		DRILL	WELL	
DIMENSIONS OF SYSTEM								w	ELL DEPTH /		CASIN	G SIZE	
CLASS 4,5 SEWAGE SYS	TEM PROPOSA		NLS						SURFACE WAT	ER SI	JPPLY		
WORKING CAPACITY OF SEPTIC OR HOLDING TANK	SIZE OF PUMP CHAMBER	LINEAL N LEACHIN	IETRES OF	FILTER	BED SIZE	CONTA	ACT AREA SIZ	ZE	DEPTH OF FILL	PERC N	OLATION ATIVE I	TIME OF S	SOIL)
LITRES				SQUAR	E METRES	SQUAR	RE METRES			т =			
Directions to Lot - Hwy No., S	Secondary Roads	, Signs t	o Follow, etc										

THE SITE PLAN SHALL SHOW

The location of existing buildings, proposed buildings, water supply, existing sewage systems, property lines, surface water (lake, river, etc.), and any neighbours wells, etc.

												INSPECTOR COMMEN	TS

SIDE PROFILE

Indicate foundation depth in relation to all components of the sewage system, including clearances to the groundwater table, bedrock, or soil with a percolation rate greater than 50 min/cm. If additional fill is required, please indicate the height above existing grade.

INSPECTION REPORT

INSPECTION	SUB-SUF	RFACE	CONDI	TIONS OBSERVED
	ROCK & GWT	м	FT	SOIL TYPE
		0.3	1	
REFRESENTING OWNER / INSTALLER		0.6	2	
		0.9	3	
		1.2	4	
		1.5	5	

PROPOSAL MEETS ONTARIO BUILDING CODE REQUIREMENTS

🖳 YES 🛛

DATE

🖵 NO

INSPECTORS SIGNATURE

PRINT NAME

In accordance with the Municipal Freedom of Information and Protection of Privacy Act the information is collected under the authority of the Building Code Act for the purposes of processing permit applications.