



Municipality of Hastings Highlands  
 Building Department  
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# Calculation Sheet

## Ontario Building Code Proposed Requirements - Residential Sewage Disposal System

Name: \_\_\_\_\_ Address: \_\_\_\_\_ Tel: ( ) \_\_\_\_\_

### 1. Sewage Flow

- a) Number of bedrooms up to 5 bedrooms: \_\_\_\_\_ = \_\_\_\_\_ Litres (1)
- b) Each bedroom over 5 bedrooms: \_\_\_\_\_ x 500 = \_\_\_\_\_ Litres (2)
- ADD**  
**OR**
- c) Living Space: \_\_\_\_\_ m<sup>2</sup>
- Each 10 m<sup>2</sup> (or part of it) over 200 m<sup>2</sup> up to 400 m<sup>2</sup>: \_\_\_\_\_ x 100 = \_\_\_\_\_ Litres
- Each 10 m<sup>2</sup> (or part of it) over 400 m<sup>2</sup> up to 600 m<sup>2</sup>: \_\_\_\_\_ x 75 = \_\_\_\_\_ Litres
- Each 10 m<sup>2</sup> (or part of it) over 600 m<sup>2</sup>: \_\_\_\_\_ x 50 = \_\_\_\_\_ Litres Total: \_\_\_\_\_ Litres (3)
- OR** (whichever is the larger flow)
- d) Total Fixture Units: \_\_\_\_\_
- Each Fixture Unit over 20: \_\_\_\_\_ x 50 = \_\_\_\_\_ Litres (4)
- Total Sewage Flow:** (Q) (Add 1 + 2 or 3 or 4) \_\_\_\_\_ Litres

### 2. Septic Tank Size

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

### 3. Leaching Bed Size

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

$L = \frac{QT}{200} = \frac{\quad \times \quad}{200} =$  \_\_\_\_\_ 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 <sup>2</sup> /day) |
|---------------|------------------|--------------------------------------|
|               | 1-20             | 10                                   |
|               | 20-35            | 8                                    |
|               | 35-50            | 6                                    |
|               | > 50             | 4                                    |

Sewage Flow ÷ Loading Rate = m<sup>2</sup> of contact area

\_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_ m<sup>2</sup> of contact area

### 5. Filter Bed Size

Sewage Flow < 3000 Litres/Day: Sewage Flow ÷ 75 = m<sup>2</sup>

\_\_\_\_\_ ÷ 75 = \_\_\_\_\_ m<sup>2</sup> of filter bed

Sewage Flow > 3000 Litres/Day: Sewage Flow ÷ 50 = m<sup>2</sup>

\_\_\_\_\_ ÷ 50 = \_\_\_\_\_ m<sup>2</sup> 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 =  $\frac{\text{Sewage Flow} \times \text{Percolation Rate}}{850}$  = m<sup>2</sup> of contact area

$A = \frac{QT}{850} = \frac{\quad \times \quad}{850} =$  \_\_\_\_\_ m<sup>2</sup> of contact area

Owner/Contractor/Designer's Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_