

# Ontario Onsite Wastewater Association



**Ontario Building Code Welcomes  
the Addition of  
“Leaching Chambers”**

*Chamber* means a structure that is constructed with an open bottom and that contains a pressurized *distribution pipe*.

**Note: On January 1, 2018, the definition of “*chamber*” in Clause 1.4.1.2.(1)(c) of Division A of the Regulation is amended by adding “in a *shallow buried trench*” after “structure”. (See: O. Reg. 139/17, s. 4 (3))**

*Type A dispersal bed* means a *leaching bed* that receives *effluent* from a Level IV *treatment unit* as described in Table 8.6.2.2. of Division B and that is comprised of a stone layer above an unsaturated sand layer as described in Subsection 8.7.7. of Division B.

**Note: On January 1, 2018, the definition of “*Type A dispersal bed*” in Clause 1.4.1.2.(1)(c) of Division A of the Regulation is amended by striking out “above” and substituting “or *leaching chambers installed over*”. (See: O. Reg. 139/17, s. 4 (17))**

## Definitions

Note: On January 1, 2018, Clause 1.4.1.2.(1)(c) of Division A of the Regulation is amended by adding the following definition: (See: O. Reg. 139/17, s. 4 (12))

***Leaching chamber*** means a formed structure with an open bottom and permeable sidewalls installed in a *leaching bed* for the purpose of distributing *effluent* from a *treatment unit* to the *soil*, as defined in Part 8 of Division B, or *leaching bed fill* in the *leaching bed*.

## Definitions

Note: On January 1, 2018, Subsection 8.7.2. of Division B of the Regulation is amended by adding the following Article: (See: O. Reg. 139/17, s. 59)

### 8.7.2.3. Leaching Chambers within Leaching Beds

(1) *Leaching chambers* are permitted for use in conjunction with an *absorption trench, shallow buried trench, filter bed* or *Type A dispersal bed*.

(2) *Leaching chambers* shall comply with the dimension requirements for either a Type I or Type II *leaching chamber* listed in Table 8.7.2.3.

## 8.7.2.3. Leaching Chambers within Leaching Beds

Item	Column 1 Type of <i>Leaching Chamber</i>	Column 2 Width, mm	Column 3 Height, mm
1.	Type I	380 to 410	280 to 305
2.	Type II	555 to 575	300 to 320

## 8.7.2.3. LEACHING CHAMBERS WITHIN LEACHING BEDS

### 8.7.2.3. Leaching Chambers within Leaching Beds

QUICK4 EQ24HD



ARC 18



Type 1

QUICK4 EQ36



ARC 24



Type 2



(3) Leaching chambers shall conform to the requirements of IAPMO PS 63, "Plastic Leaching Chambers".



## 8.7.2.3. Leaching Chambers within Leaching Beds



### 8.7.3.1. Length of Distribution Pipe

(1) The total length of *distribution pipe* shall,

(a) not be less than 30 m when *constructed* as a *shallow buried trench*, or

(b) not be less than 40 m for any other *absorption trench*.

(2) Except as provided in Sentences (1), (3), and (4) every *leaching bed constructed* by means of *absorption trenches* shall have a total length of *distribution pipe* not less than the value determined by the formula,

$$L = \frac{QT}{200}$$

where,

L = total length of *distribution pipe* in metres,

Q = the total daily design *sanitary sewage* flow in litres, and

T = the design *percolation time*.

(3) Except as provided in Sentence (1), where a *leaching bed* receives *effluent* from a Level II, Level III or Level IV *treatment unit* as described in Table 8.6.2.2., the *leaching bed* may have a total length of *distribution pipe* not less than the value determined by the formula,

$$L = \frac{QT}{300}$$

## 8.7.3. Absorption Trench Construction

Note: On January 1, 2018, Subsection 8.7.3. of Division B of the Regulation is amended by adding the following Article:  
(See: O. Reg. 139/17, s. 60)

### 8.7.3.1A. Length of Leaching Chamber

- (1) The total length of *leaching chamber* shall,
- (a) not be less than 30 m when constructed as a *shallow buried trench*, or
  - (b) not be less than 40 m for any other *absorption trench*.
- (2) Except as provided in Sentences (1) and (3), the total length of *leaching chamber* shall not be less than the value determined by the formula,
- $L = QT/200$ , for a Type I *leaching chamber*, or
- $L = QT/300$ , for a Type II *leaching chamber*,

## 8.7.3.1.A. Length of Leaching Chamber

(3) When a *treatment unit* described in Article 8.6.2.2. is used in conjunction with a *leaching chamber*, the total length of *leaching chamber* shall not be less than the

value determined by the formula

$$L = QT/300$$

where,

L = total length of *leaching chamber* in metres,

Q = the total daily design *sanitary sewage* flow in litres, and

T = the design *percolation time*.

## 8.7.3.1.A. Length of Leaching Chamber

## 8.7.3. ABSORPTION TRENCH CONSTRUCTION

### 8.7.3.4. Leaching Chamber

Note: On January 1, 2018, Subsection 8.7.3. of Division B of the Regulation is amended by adding the following Article: (See: O. Reg. 139/17, s. 63)

#### 8.7.3.4. Leaching Chamber

- (1) Prior to backfilling, the leaching chamber shall be,
  - (a) installed level over the length of the absorption trench,
  - (b) securely connected together, section to section,
  - (c) free of structural damage, uncut and used full length,
  - (d) equipped with end caps installed on both ends,
  - (e) equipped with an integrated splash plate at the inlet end of each line of leaching chamber, to prevent soil scouring, and
  - (f) protected in such a manner so as to prevent soil or leaching bed fill from entering the leaching chamber.
- (2) Except for a shallow buried trench, the distribution pipe within a leaching chamber shall be not less than 3 in. trade size for dosed systems.
- (3) Every pressurized distribution pipe within a leaching chamber shall,
  - (a) extend over the entire length of the leaching chamber,
  - (b) be not less than 1½ in. trade size,
  - (c) have orifices of at least 6 mm in diameter, spaced equally along the length of the pipe to provide even distribution of the effluent,
  - (d) be supported,
  - (e) be self-draining so as to prevent freezing of its contents, and
  - (f) have cleanouts installed at the downstream end of each line of leaching chamber to allow for servicing of the system.

## 8.7.4.2. Construction Requirements

(1) Except for a *shallow buried trench*, a *leaching bed* comprised of *absorption trenches* may be constructed in *leaching bed fill*, if *unsaturated soil* or *leaching bed fill* complying with Subclause 8.7.2.1.(1)(b)(ii) extends,

(a) to a depth of at least 250 mm over the area covered by the *leaching bed fill*, and

(b) for at least 15 m beyond the outer *distribution pipes* in any direction in which the *effluent* entering the *soil* or *leaching bed fill* will move horizontally.

**Note:** On January 1, 2018, Clause 8.7.4.2.(1)(b) of Division B of the Regulation is amended by striking out “the outer *distribution pipes*” and substituting “the centrelines of the outer *distribution pipes* or *leaching chambers*”. (See: O. Reg. 139/17, s. 64 (1))

## 8.7.4. Fill Based Absorption Trenches

### 8.7.5.3. Construction Requirements

- (1) Sentences 8.7.4.2.(1), (2) and (4) to (11) apply to the construction of a filter bed.
- (2) The lines of distribution pipe shall be evenly spaced over the surface of the filter medium to which the sanitary sewage is applied.

**Note: On January 1, 2018, Sentence 8.7.5.3.(2) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 139/17, s. 65 (1))**

(2) The lines of distribution pipes or leaching chambers shall be evenly spaced over the surface of the filter medium to which the sanitary sewage is applied, with a maximum spacing between the centrelines of the distribution pipes or leaching chambers in accordance with Table 8.7.5.3.

Table 8.7.5.3.

Maximum Spacing Between Lines of Distribution Pipes or Leaching Chambers

Item	Column 1 Distribution Method	Column 2 Maximum Centreline Spacing, mm
1.	Distribution pipes	1 200
2.	Type I leaching chambers	900
3.	Type II leaching chambers	1 000

## 8.7.5. Filter Beds



(5) Where the underlying soil has a percolation time of more than 15 min, the sand layer referred to in Sentence (4) shall,

- (a) extend to at least 15 m beyond the perimeter of the treatment unit, or distribution pipes if utilized, in any direction that the effluent entering the soil will move horizontally, and

**Note: On January 1, 2018, Clause 8.7.7.1.(5)(a) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 139/17, s. 67 (3))**

- (a) extend to at least 15 m beyond the perimeter of the treatment unit, or the centerlines of the outer distribution pipes or leaching chambers if utilized, in any direction in which the effluent entering the soil or leaching bed fill will move horizontally, and
- (b) have an area that is not less than the value determined by the formula,

$$A = \frac{QT}{400}$$

## 8.7.7. Type A Dispersal Beds

Note: On January 1, 2018, Article 8.7.7.1. of Division B of the Regulation is amended by adding the following Sentence: (See: O. Reg. 139/17, s. 67 (5))

(6.1) Where leaching chambers are used,

- (a) the Type A dispersal bed shall be rectangular in shape with the long dimension parallel to the site contours, and
- (b) the leaching chambers shall,
  - (i) be evenly spaced over the area calculated in Subclause (iv), with a maximum distance of 200 mm between the exterior edges of the lines of leaching chamber,
  - (ii) be protected in the manner described in Clause 8.7.3.4.(1)(f),
  - (iii) be constructed such that the bottom of the leaching chambers is at least 600 mm above the high ground water table, rock or soil with a percolation time of 1 min or less or greater than 50 min, and
  - (iv) have a minimum area not less than the value determined by the formula,

$$A = Q/B$$

## 8.7.7. Type A Dispersal Beds

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