Septic Guideline: Construction

	Description	Required	Submission Status	Notes
Applicable Law	NVCA - Nottawasaga Valley Conservation Authority	☐	☐	
	LSRCA - Lake Simcoe Conservation Authority	☐	☐	
	MTO - Ministry of Transportation	☐	☐	
Forms	8a – 8g: Septic Design Forms	✓	☐	
	Schedule 1: Designer Information	✓	☐	
	Schedule 2: Sewage System Installer Information	✓	☐	
Plans	Site Plan to include: • Property lines, buildings and site attributes • Tanks dispersal bed with dimensions & clearances • ALL surrounding potable water sources (types, locations, and clearances) • Site grading, drainage & swales	✓	☐	
	Cross Section to include: • Native and imported material labelled with depths • Existing and proposed grade	✓	☐	

Submission:

Applications shall be submitted through our online permit application software, Cloudpermit. For more information, visit our webpage at https://www.oro-medonte.ca/municipal-services/building-information

Test hole Inspection:

Where identified that proposed native t-time and high ground water shall be assessed. Excavate two 5' deep test holes ***outside the existing septic envelope***. Book a test hole and site evaluation inspection online at https://survey.simcoe.ca/surveys/inspectionbookings.aspx or (705) 487-2171.

Permit Fees:

Fees will be calculated and invoiced through the workspace in accordance with the Fees & Charges By-law.

Engineered Lot Grading Design (ELG):

Where applicable; approved ELG and septic designs will be cross referenced during the permit review.

8a: Daily Flow - Residential Occupancy

SP# _____

Reason:
- ☐ End of Lifespan (or failure)
- ☐ Maintenance or Repair
- ☐ Development or relocation

Septic Construction:
- ☐ New
- ☐ Replacement
- ☐ Repair

Septic Type:
- ☐ Class 2 - Greywater System
- ☐ Class 4 - Leaching Bed System
- ☐ Class 5 - Holding Tank

Water source type:
- ☐ Municipal water system
- ☐ Private water system
- ☐ Private well

Water source use:
- ☐ New
- ☐ Maintain existing
- ☐ Decommission existing

Water conditioning system:
Backwash cycle discharges to the septic?

☐ Yes ☐ No

Nitrogen reduction:
☐ Yes, required

Fixture Units:

Fixture Type	Fixture Hyraulic Load	Building 1		Building 2	
		# of Fixtures	Total	# of Fixtures	Total
Bathroom Group - 2 pc	5.5				
Bathroom Group - 3 pc	6				
Bathroom Group - 4 pc	7.5				
Bidet	1				
Kitchen Sink	1.5				
Dishwasher	1.5				
Washing Machine	1.5				
Laundry Tub	1.5				
		Total		**Total**	

Residential Occupancies OBC 8.2.1.3.(1):

A. Dwelling - Daily Flow: _____ **L/day**

Number of bedrooms: _____

Finished Area: _____ m^2

Fixture Units: _____

B. Apartment - Daily Flow: _____ **L/day**

Number of Persons:
(2 per bedroom): _____

Total Daily Flow (A+B): _____ **L/day**

(705) 487-2171
www.oro-medonte.ca
septic@oro-medonte.ca

Township of Oro-Medonte
Proud Heritage, Exciting Future

8b: Daily Flow - Other Occupancies

SP# _____

Reason:
- ☐ End of Lifespan (or failure)
- ☐ Maintenance or Repair
- ☐ Proposed development or reno

Septic Construction:
- ☐ New
- ☐ Replacement
- ☐ Repair

Septic Type:
- ☐ Class 2 - Greywater System
- ☐ Class 4 - Leaching Bed System
- ☐ Class 5 - Holding Tank

Water source type:
- ☐ Municipal water system
- ☐ Private water system
- ☐ Private well

Water source use:
- ☐ New
- ☐ Maintain existing
- ☐ Decommission existing

Water conditioning system:
Backwash cycle discharges to the septic?

☐ Yes ☐ No

Nitrogen reduction:
☐ Yes, required

Other Occupancies OBC 8.2.1.3.(2) - Daily design flow:

	Description per OBC Table 8.2.1.3.B.	Volume	Calculated Flow
Establishment 1			
Establishment 2			
Establishment 3			
Establishment 4			

OBC Table 8.2.1.3. and Table notes:

* The occupant load shall be calculated using OBC 3.1.17.
* Where multiple calculations of volume is permitted, the calculation resulting in the highest flow shall be used for the establishment's daily flow.
* Where a building contains more than one establishment, the total daily flow shall be the sum of daily flow for each establishment.

Total Daily Flow: _____ L/day

8c: Class 4 - Trench Bed

SP# _____

Design per OBC 8.7.4.:

Alternative Treatment Unit: Manufacturer: _____ Model: _____

1. Total daily flow (Q): _____ L/day
2. T-time of original controlling soil layer: _____ min/cm
3. Septic / treatment tank size: _____ L
4. Total distribution pipe ≥ 150m ☐ Yes ☐ No
5. Pump chamber size: _____ L

   OBC 8.6.1.3. (4) - Sizing Example:

   L = Total length of distribution pipe (m) V = Effluent volume (L) pumped

   75mm (3") diameter distribution pipe V = 3.3 x _____ L = _____

   100mm (4") diameter distribution pipe V = 5.9 x _____ L = _____

6. Design Calculations:

   A = Area in m^2

   L = Length in meters

   Q = Daily sanitary sewage flow in litres

   T = Percolation t-time of the underlying native soil in min/cm (max 50 min)

Length of Distribution Pipe / Chamber	**Loading Area**
$L = \frac{QT}{200 \text{ or } 300}$	$A = \frac{Q}{\text{Table 8.7.4.1.}}$
L = _____	A = _____
L = _____ m	A = _____ m^2

7. Trench construction:

   ☐ **Absorption trench** in insitu native soil per OBC 8.7.4.3.

   ☐ **Fill based absorption trench** in leaching bed fill per OBC 8.7.4.2.

8. Trench or loading area: Base excavation depth _____ mm **below existing grade**.

8d: Class 4 - Filter Bed

SP# _____

Design per OBC 8.7.5.:

Alternative Treatment Unit: Manufacturer: _____ Model: _____

1. Total daily flow (Q): _____ L/day
2. T-time of original controlling soil layer: _____ min/cm
3. Septic / treatment tank size: _____ L
4. Total distribution pipe ≥150m ☐ Yes ☐ No
5. Pump chamber size: _____ L

   OBC 8.6.1.3. (4) - Sizing Example:

   L = Total length of distribution pipe (m) V = Effluent volume (L) pumped

   75mm (3") diameter distribution pipe V = 3.3 x _____ L = _____

   100mm (4") diameter distribution pipe V = 5.9 x _____ L = _____

6. Design Calculations:

   A = Area in m^2

   Q = Daily sanitary sewage flow in litres

   T = Percolation t-time of the underlying native soil in min/cm (max 50 min)

Filter Bed Area	**Expanded Contact Area**	**Loading Area**
$A = \frac{Q}{(50, 75 \text{ or } 100)}$	$A = \frac{QT}{850}$	$A = \frac{Q}{\text{Table 8.7.4.1.}}$
A = _____	$A = \frac{\_\_\_\_\_}{850}$	A = _____
A = _____ m^2	A = _____ m^2	A = _____ m^2

7. Base excavation depth _____ mm **below existing grade.**

8e: Class 4 - Shallow Buried Trench

SP# _____

Design per OBC 8.7.6.:

Required Treatment Unit: Manufacturer: _____ Model: _____

1. Total daily flow (Q): _____ L/day
2. T-time of original controlling soil layer: _____ min/cm
3. Septic / treatment tank size: _____ L
4. Total distribution pipe ≥ 150m ☐ Yes ☐ No
5. Pump chamber size: _____ L

   OBC 8.6.1.3. (4) - Sizing Example:

   L = Total length of distribution pipe (m) V = Effluent volume (L) pumped

   75mm (3") diameter distribution pipe V = 3.3 x _____ L = _____

   100mm (4") diameter distribution pipe V = 5.9 x _____ L = _____

6. Design Calculations:

   L = Length in meters

   Q = Daily sanitary sewage flow in litres

   T = Percolation t-time of the underlying native soil in min/cm (max 50 min)

   Length of Distribution Pipe / Chamber

   $$L = \frac{Q}{50 \text{ or } 75}$$

   L = _____ m

   L = _____ m

7. Base excavation depth _____ mm **below existing grade.**

(705) 487-2171
www.oro-medonte.ca
septic@oro-medonte.ca

Township of Oro-Medonte
Proud Heritage, Exciting Future

8f: Class 4 - Type A

SP# _____

Design per OBC 8.7.7.:

Required Treatment Unit: Manufacturer: _____ Model: _____

1. Total daily flow (Q): _____ L/day
2. T-time of original controlling soil layer: _____ min/cm
3. Septic / treatment tank size: _____ L
4. Total distribution pipe ≥ 150m ☐ Yes ☐ No
5. Pump chamber size: _____ L

   OBC 8.6.1.3. (4) - Sizing Example:

   L = Total length of distribution pipe (m) V = Effluent volume (L) pumped

   75mm (3") diameter distribution pipe V = 3.3 x _____ L = _____

   100mm (4") diameter distribution pipe V = 5.9 x _____ L = _____

6. Design Calculations:

   A = Area in m^2

   Q = Daily sanitary sewage flow in litres

   T = Percolation t-time of the underlying native soil in min/cm (max 50 min)

Stone Layer	**Sand Layer**
$A = \frac{Q}{50 \text{ or } 75}$	$A = \frac{QT}{400 \text{ or } 850}$
A = _____	A = _____
A = _____ m^2	A = _____ m^2

7. Base excavation depth _____ mm **below existing grade.**

8g: Class 4 - Combined Treatment & Dispersal

SP# _____

Design per OBC Act - Building Material Evaluation Commission:

Treatment Unit: Manufacturer: _____ Model: _____

1. Total daily flow (Q): _____ L/day
2. T-time of original controlling soil layer: _____ min/cm
3. Septic / treatment tank size: _____ L
4. Total distribution pipe ≥ 150m ☐ Yes ☐ No
5. Pump chamber size: _____ L

   OBC 8.6.1.3. (4) - Sizing Example:

   L = Total length of distribution pipe (m) V = Effluent volume (L) pumped

   75mm (3") diameter distribution pipe V = 3.3 x _____ L = _____

   100mm (4") diameter distribution pipe V = 5.9 x _____ L = _____

6. Design Calculations:

   A = Area in m^2

   Q = Daily sanitary sewage flow in litres

   T = Percolation t-time of the underlying native soil in min/cm (max 50 min)

   N = Number of modules

Number of Pipes / Modules	**Sand Layer**
$N = \frac{Q}{\text{per BMEC}}$	$A = \frac{QT}{400 \text{ or } 850}$
N = _____	A = _____
N = _____ modules	A = _____ m^2

7. Base excavation depth _____ mm **below existing grade.**

(705) 487-2171
www.oro-medonte.ca
septic@oro-medonte.ca

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:

1. 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.
2. 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 Professional Engineers Ontario.

Schedule 2: Sewage System Installer Information

A. Project Information

Building number, street name			Unit number	Lot/con.
Municipality	Postal code	Plan number/ other description		

B. Sewage system installer

Is the installer of the sewage system engaged in the business of constructing on-site, installing, repairing, servicing, cleaning or emptying sewage systems, in accordance with Building Code Article 3.3.1.1, Division C?

☐ Yes (Continue to Section C) ☐ No (Continue to Section E) ☐ Installer unknown at time of application (Continue to Section E)

C. Registered installer information (where answer to B is "Yes")

Name			BCIN	
Street address			Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number	Fax		Cell number	

D. Qualified supervisor information (where answer to section B is "Yes")

Name of qualified supervisor(s)	Building Code Identification Number (BCIN)

E. Declaration of Applicant:

I _____ declare that:
(print name)

☐ I am the applicant for the permit to construct the sewage system. If the installer is unknown at time of application, I shall submit a new Schedule 2 prior to construction when the installer is known;

OR

☐ I am the holder of the permit to construct the sewage system, and am submitting a new Schedule 2, now that the installer is known.

I certify that:

1. The information contained in this schedule 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