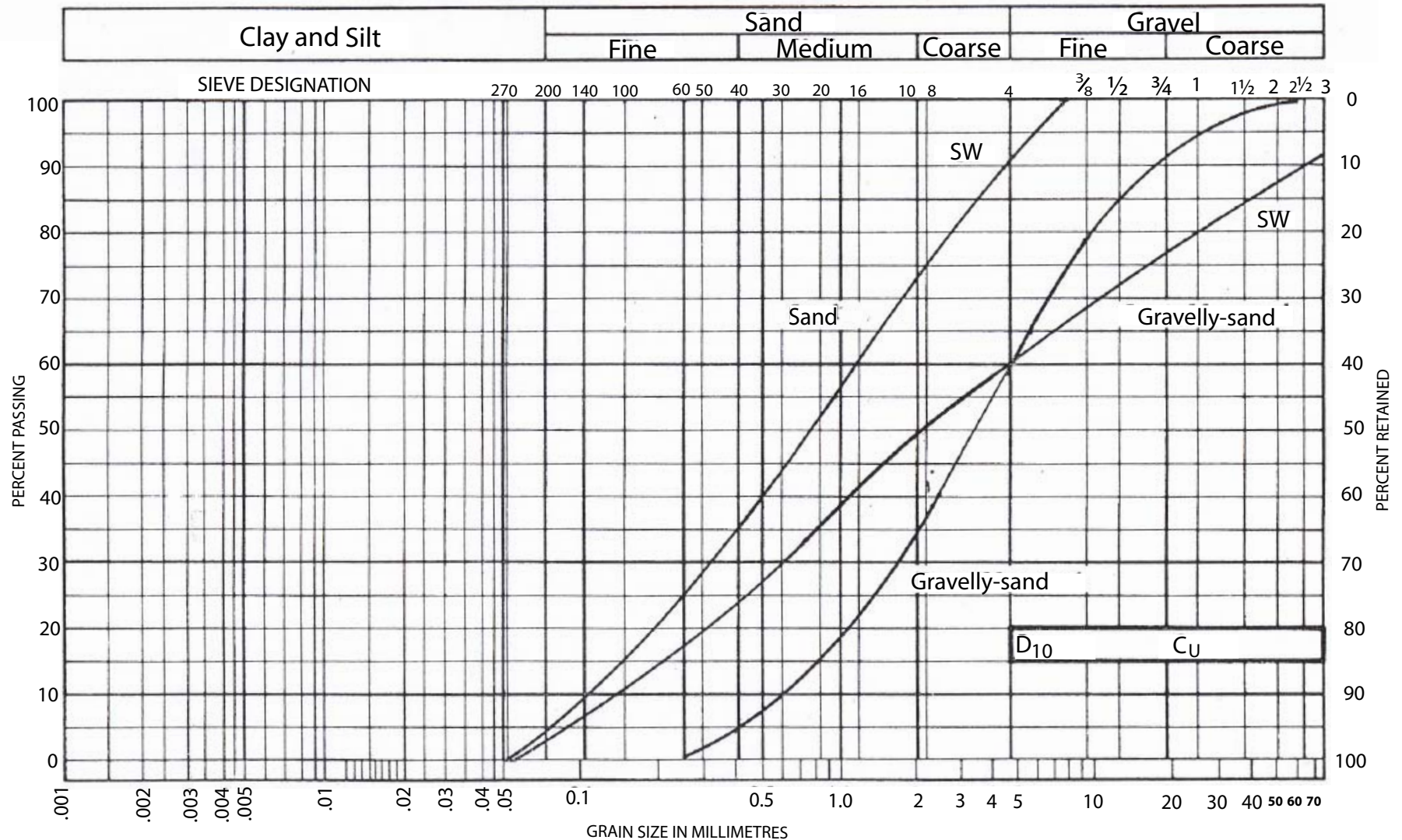


Unified Soil Classification System

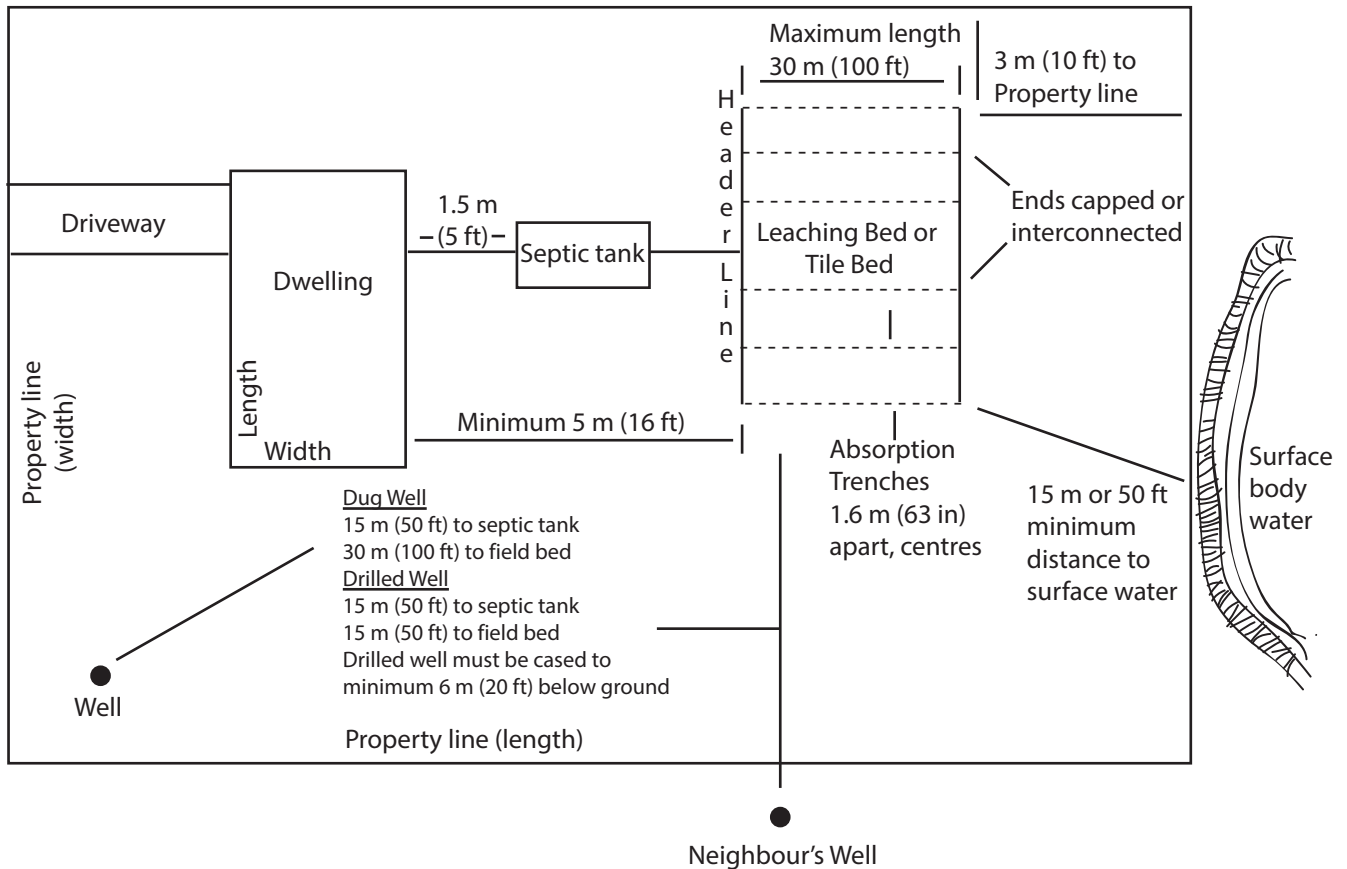
Appendix C



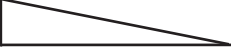
SW - Well-graded sands, gravelly-sands
 Little or no fines (< 5% passing 0.074 mm)
 Uniformity coefficient > 4

Appendix "D"

Sample Site Plan



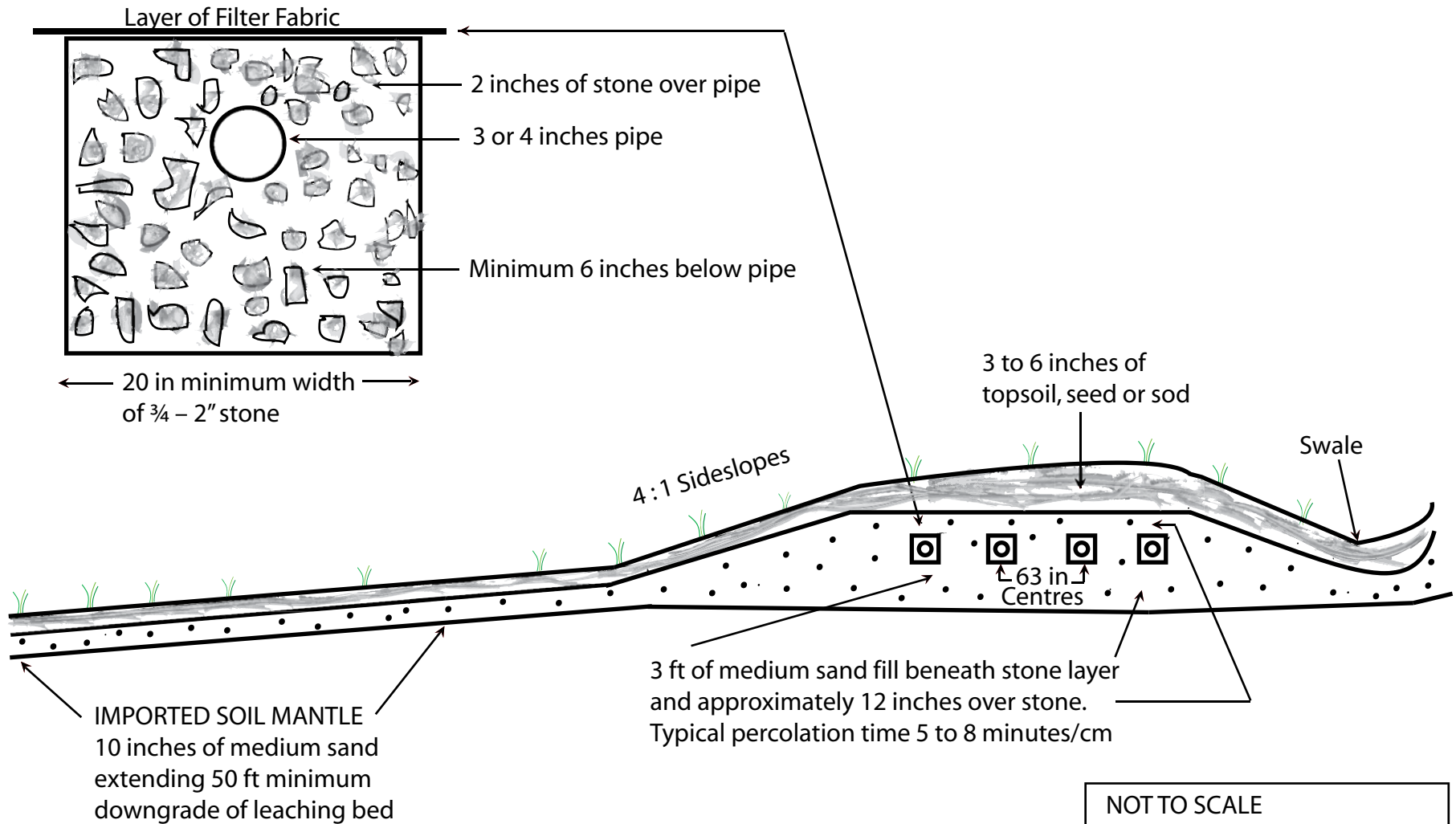
TYPICAL ARRANGEMENT OF A SEPTIC TANK SYSTEM

- A) The maximum length of any single pipe trench must not exceed 100 feet (30 metres).
- B) When measured horizontally, treatment units (e.g. septic tanks, etc.) must not be any closer than 50 feet (15 m) to a well, lake, pond, reservoir, stream, river or watercourse. Distribution pipe and leaching chambers shall not be closer than the distances stated above, except that there is a 100-foot setback requirement from a shallow well.
- C) The side slopes of any raised portion of a leaching bed must not be steeper than 4:1.  Side slopes can be reduced to 3 : 1 if stabilized by immediately sodding with grass after top-dressing.
- D) Although not indicated above, fill based leaching beds will normally require a soil mantle.

PIPE SIZE

1. The trade size of rigid construction pipe shall be at least three (3") inches in diameter.
2. The trade size of drainpipe from the building to the septic tank shall be four (4") inches in diameter.

TYPICAL RAISED LEACHING BED
Cross Section
(Installed on Native Silt / Clay Soils)

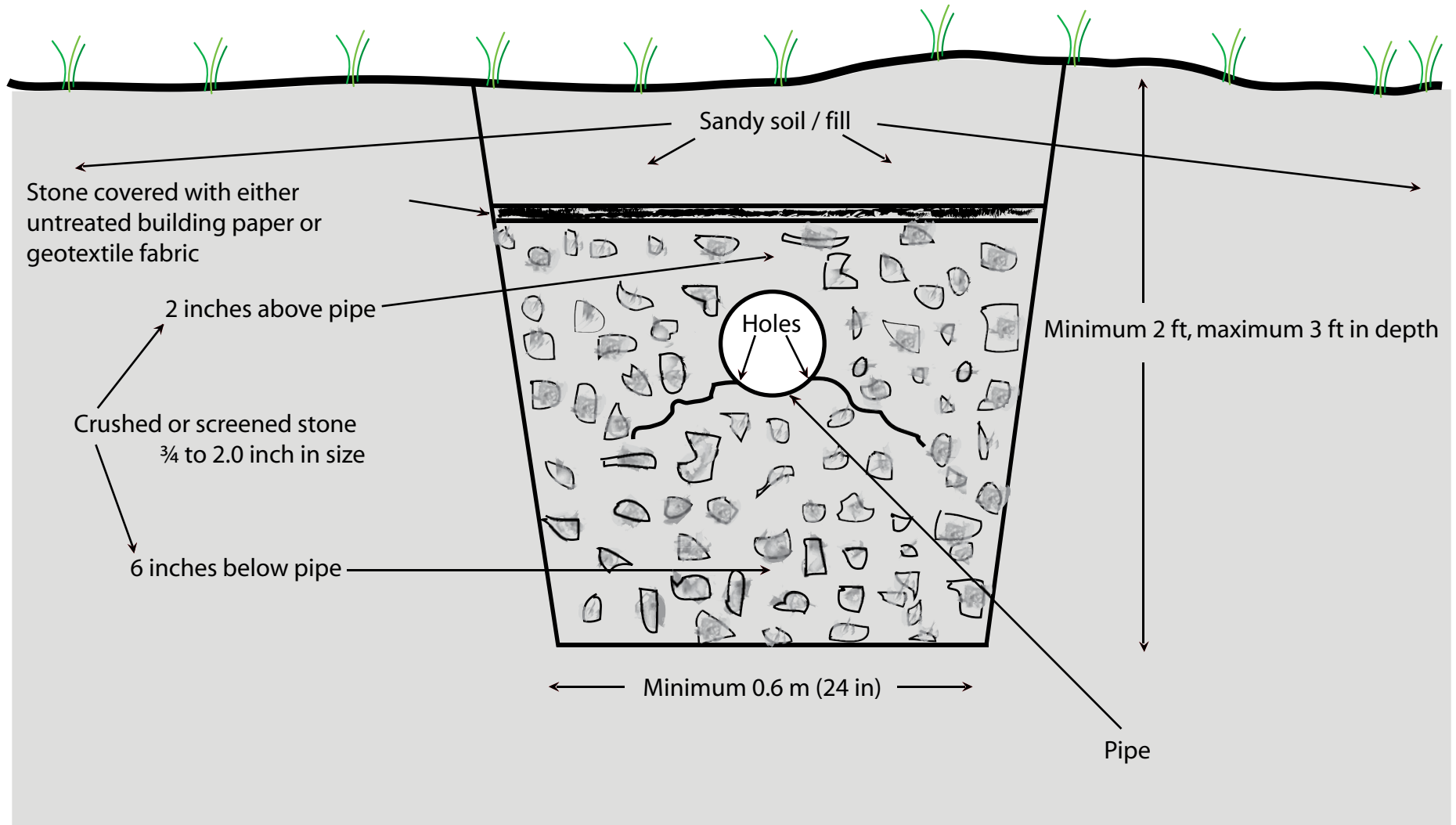


NOT TO SCALE
Refer to Ontario Building Code
for precise details.
Example only.

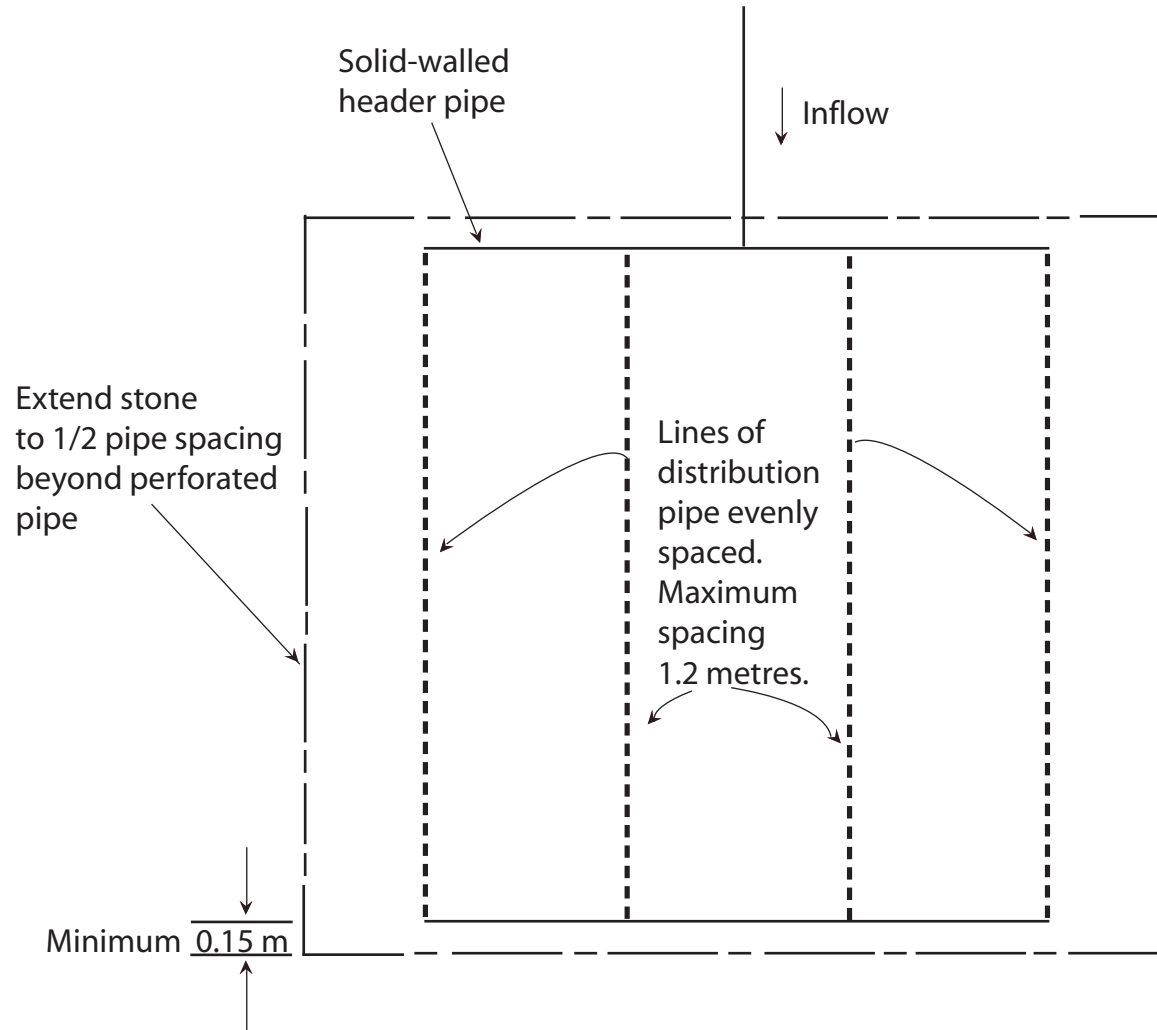
Typical Trench Detail

Class 4 Absorption Trench

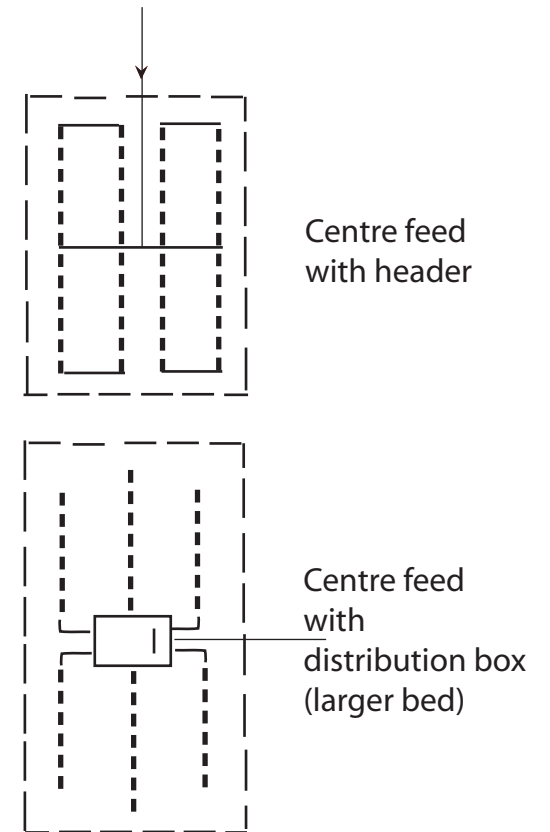
Not to Scale



Leaching Beds: Example of Filter Bed



Some Alternative Pipe Layouts



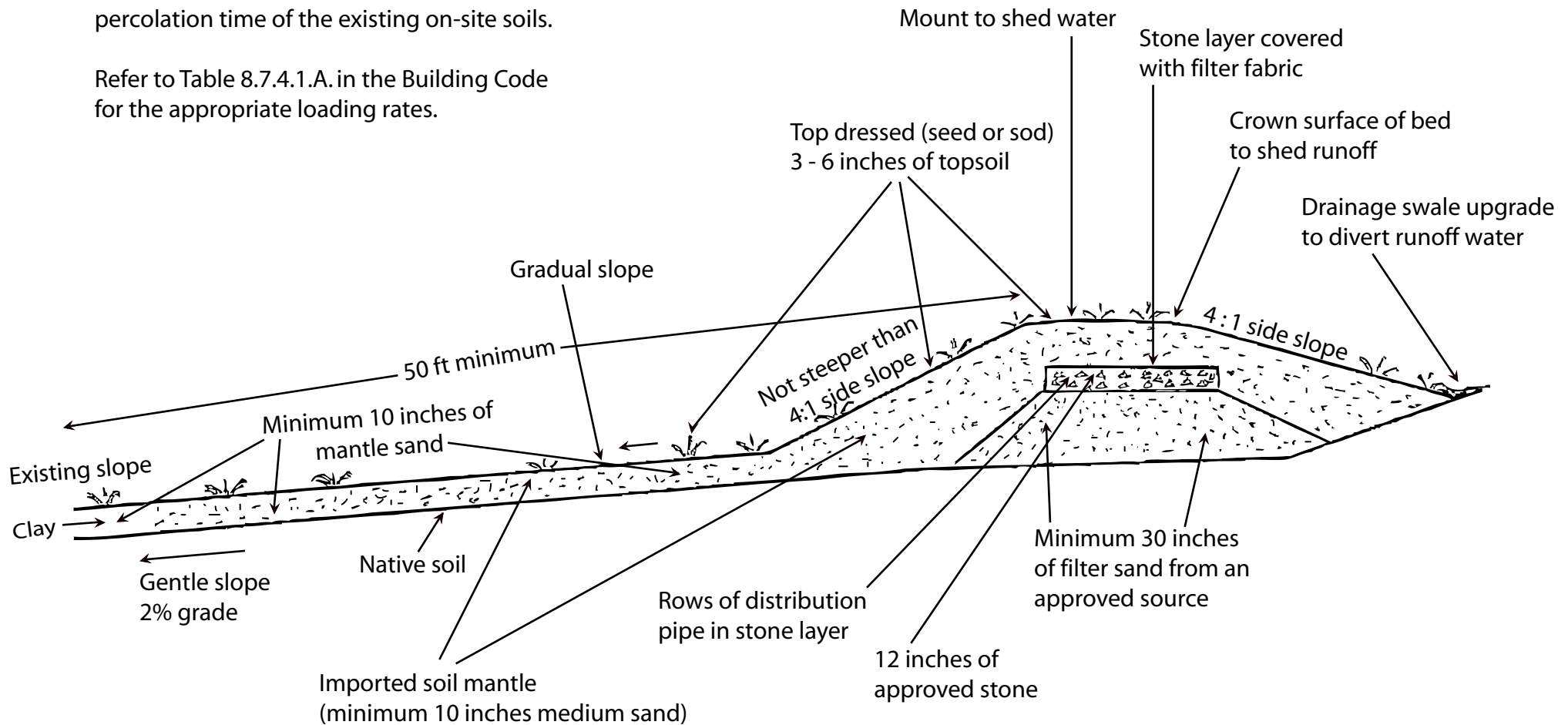
Example of Typical Raised Filter Bed (Installed on Clay Soils)

Refer to Ontario Building Code
For the Precise Regulated Requirements

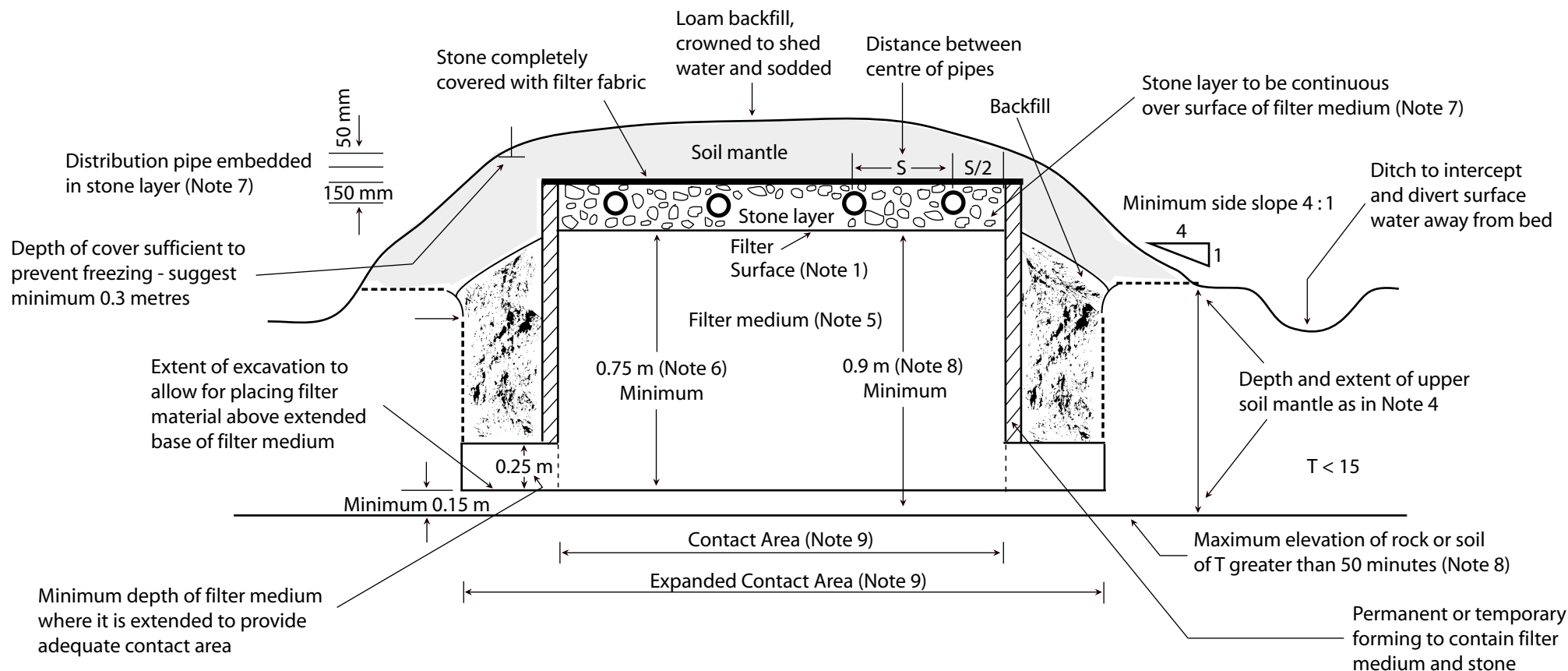
Cross Section

Note: The size of the soil mantle is based on the percolation time of the existing on-site soils.

Refer to Table 8.7.4.1.A. in the Building Code
for the appropriate loading rates.



Leaching Beds: Example of Filter Bed



NOTES: Refer to Ontario Building Code for regulations governing filter type leaching beds

- 1) Maximum size of any one filter bed cannot exceed 50 square metres.
- 2) Permissible loading rates on surface of filter bed used with a septic tank.
 - i) 75 litres/square metre (L/m²) for flows up to 3000 litres/day.
 - ii) 50 litres/square metre (L/m²) for flows between 3000 - 5000 litres/day.
- 3) Permissible loading rate for filter beds used in conjunction with Secondary and Tertiary Treatment Units – 100 litres/square metre.
- 4) Filter beds may only be installed in-ground or partially in-ground if the existing on-site soils have a percolation time (T) < 15 minutes/cm. A soil mantle of T < 15 minutes/cm and at least 0.25 metres in depth is required to extend from the outer distribution pipes in any direction in which sewage effluent that has passed through the filter bed will flow. For mantle sizes refer to Application Kit or the Building Code.
- 5) Filter medium must be certified by a soil engineer to meet requirements of the Ontario Building Code.
- 6) Minimum depth of filter sand is 0.75 metres. Ensure that the filter sand is purchased from an approved pit supplier.
- 7) Distribution pipes are to be bedded in clean stone screened to between ¾ to 2.0 inches in size. This stone is typically referred to as 1 ¼ inch screened stone for field beds.
- 8) The surface of the filter sand must be at least 0.9 metres above rock or the groundwater table (GWT).
- 9) The base of the filter bed must be extended with filter sand to a thickness of at least 0.25 metres over an area meeting the following requirement – $\frac{Q \times T}{850}$ where Q is the design sewage flow and T is the percolation time of the existing on-site soils.