



# Backfilling Natural Gas Pipelines

It is the third party's responsibility to ensure that the natural gas pipeline is not undermined or endangered in any way as part of any ground disturbance work.

- If any damage occurs, Enbridge Gas must be contacted immediately.

The following principles must be followed:

- The backfill does not harm the pipe or coating.
- The use of suitable native material and minimize haul out must be maximized.
- Reliable and stable backfilling must be done with the use of dams as appropriate.

Enbridge Gas permits the use of any compacting device that:

- Compacts backfill sufficiently to eliminate any settlement of the pipe or ground.
- Will not cause any deformation or damage to the pipe or its coating.
- Will not cause any damage to any adjacent building, structure or utility.
- Will not cause any damage to any tree, shrub, tended lawn, or ground cover.

When backfilling where the finished grade has not been established, sufficient soil must be placed over the trench to allow for settlement.

When backfilling rocks must be prevented from being placed touching or near the pipe.

Native excavated material must be used as backfill unless unsuitable.

If native material is unsuitable, 150 mm (6 in) layers of approved earth (excludes topsoil) or sand padding must be placed over the pipe for protection for at least 300 mm (12 in) with each layer suitably compacted by manual tamping.

Aggregate backfill must be replaced in 200 mm (8 in) layers.

- Each layer must be thoroughly compacted by pneumatic tampers or an equivalent method acceptable to Enbridge Gas to ensure no settlement.

Backfilling a flooded trench is not allowed with the excavator responsible for dewatering.

When backfilling on a slope, filling should be placed starting from the bottom of the slope progressing upwards to prevent large voids in the backfill.

Backfill and compaction must be done in accordance with the local governing authority.

- The final covering of gas pipelines must adhere to municipal requirements.

The final layer must be smoothed down and tamped flush or slightly higher than the surrounding grade to prevent ponding of water and accommodate future soil subsidence.

Unshrinkable fill or other engineered backfill material must be installed only when requested by a municipality, governing authority, or as directed by Enbridge Gas.

- Enbridge Gas assets must be sand padded before placing unshrinkable fill.
- Unshrinkable fill must not displace sand padding or directly contact the pipeline.

For more detailed information on the above, please review the [Enbridge Gas Third-Party Requirements in the Vicinity of Natural Gas Facilities Standard](#) which is also available from the [Enbridge Gas "Working near vital natural gas pipelines" webpage](#).