



How we build the pipeline

Enbridge commits great care, thoughtful planning, stewardship and safe work practices to building our North American network of natural gas pipelines.

Construction of a new pipeline can involve thousands of workers, tons of steel pipe and hundreds of pieces of construction equipment.

Every step is guided by professionals with years of experience in building natural gas pipelines that meet the highest industry and government standards for safety, environmental protection and operational reliability.

Great effort is taken to minimize disruption to landowners during the construction process. We carefully plan every step of the project so we can install the pipeline and restore the area to its previous use as efficiently as possible.

About the Pipe

The pipeline is constructed of high strength carbon steel, manufactured in accordance with U.S. Department of Transportation pipeline regulations.

Construction Methods

Typical Cross-Country

Cross-country pipeline construction is typically accomplished with several distinct crews performing their specialized tasks traveling along a significant length of pipeline right-of-way. Each crew conducts the individual tasks of clearing, grading, stringing, bending, welding, lowering in, tying in, backfilling and cleaning up one at a time.

Stove Pipe

The technique involves installing one joint of 40-foot pipe at a time. The welding, weld inspection and coating activities are all performed in the open trench. At the end of each day, after the pipe is installed, the trench is backfilled and/or covered with steel plates.

Drag Section

This technique involves the trenching, installation and backfill of a prefabricated length of pipe containing several 40-foot pipe joints pulled into the trench all in one day. At the end of each day, after the pipe is installed, the trench is backfilled and/or covered with steel plates or timber mats.

In Street

In street construction is a combination of the two methods described above. Sufficient trench is excavated to allow the contractor to ensure that there will be no alignment changes required due to unknown obstacles. To provide the contractor with a starting point for the following day, a short section of trench is not backfilled but is covered with steel street plates to ensure safety and to allow for traffic. The company will work with local authorities to prepare a traffic management plan that will minimize the traffic disruption to the community.



Construction and Safety Procedures

Once construction is nearly complete, a series of pipeline safety procedures are undertaken. These procedures include:

Welding and Inspection

Once the individual pipe joints are bent to fit the trench, they are welded together. The welding is highly controlled and performed by qualified welders using approved welding procedures.

Each weld made on the pipeline is visually inspected and radiographs or ultrasonic images are processed on-site to ensure the integrity of every weld.

Coating

Specialized epoxy coating is applied to each of the weld joint areas after the radiographic inspection is complete and the weld has been approved. The coating on the entire pipe section is electronically checked and repaired.

Hydrostatic Testing

As various long sections are completed and backfilled, they are filled with water and pressurized to a point higher than the maximum pressure at which the pipe will ever be operated. This test pressure is held for a minimum of eight continuous hours.

Cleanup and Restoration

Restoration begins as soon as the pipe is backfilled and continues until the construction work area is fully restored as close as possible to its original state. Temporary workspace will be allowed to return to its previous state.