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INSTALLATION OF THE SOLIFLEX TYPE 3 DRAIN AT A NEW BUILDING'S FOUNDATION FOOTINGS IN CAP-SANTÉ, QUEBEC

Foundation and basement drainage: A flexible drain with smooth interior wall that facilitates cleaning and promotes rapid water evacuation.

The installation of the new SoliFlex Type 3, a flexible drain with smooth interior wall, was a first for Fondations Antoine Côté, a formwork contractor based in Saint-Augustin-de-Desmaures. Among other things, the advantages of this new flexible drain, quick to install and requiring fewer fittings, motivated David Mayotte, project manager, to select this new product offered by Soleno.

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THE CONTEXT

When it comes to channelling and draining excess water from the foot of a building's foundations, the choice of perforated pipe to use is crucial to prevent the captured water from stagnating, causing damage to the foundation. Several options are available to formwork contractors, including high-density polyethylene (HDPE) drains. Satisfied with the HDPE products offered by Soleno for his residential projects, Mr. Mayotte chose to use the new SoliFlex Type 3 flexible drain for the foundations of a house in Cap-Santé, Quebec.

THE SOLUTION

A 45 m (147.6 ft) roll of 100 mm (4 in) diameter SoliFlex Type 3 drain was installed at the base of the new home's foundation footings. A 100 mm (4 in) diameter access chimney, connected to the foundation drain, was also installed. Despite the many 90-degree angles present, no connections were installed other than the final connection. Once the foundation drain was filled with clean stone, a separation geotextile was added to cover it.

THE BENEFITS

Thanks to its quick and simple installation, the installation of the foundation drain using SoliFlex took less than an hour, including backfilling, whereas a conventional installation would have required 2 to 4 times more time. Because of its composition, this double-wall drain retains the flexibility of corrugated drains, which allows it to make 90 turns with a tight radius of curvature without the use of a fitting, greatly facilitating its installation. In addition, its smooth interior wall maintains the discharge speed of a rigid pipe, while requiring fewer connections than the latter, and maintains the longitudinal rigidity of the pipe, thus preventing its ovalization. Available in 45 m (147.6 ft) lengths, the SoliFlex drain installs faster than rigid drains available only in standard 4-metre lengths.

When installed with clean stone backfill, the SoliFlex Type 3 drain is recommended for foundation drainage installation. Its smooth interior minimizes sediment accumulation, facilitates cleaning and rapid water evacuation. Its oval Type 3 perforations prevent even the finest stones from clogging or penetrating the pipe, unlike circular perforations in rigid pipes.

Access to the drainage system is facilitated by the installation of factory pre-assembled HDPE access chimneys, which reduces installation costs and ensures the quality of the system. If necessary or during periodic maintenance, a visual inspection by camera is facilitated by the green interior of the SoliFlex. Washing with water under pressure will dilute ferrous deposits that may have lodged inside the drainage system.



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