Smart, Innovative Solutions

Nilex is committed to working with our clients to unearth better results on their civil, environmental, and construction projects by applying the latest engineered, technically advanced materials and construction techniques in five key application areas:

- Roads & Rail
- MSE Walls & Slopes
- Erosion & Sediment Control
- Water Management
- Containment

We have built strong relationships with many different types of clients, including Resource and Power Companies, Government Agencies, Airports, Transit and Rail, Contractors and Developers.

Our experience in the geosynthetics industry, and our commitment to the environment, dates back to 1977. Today, Nilex continues to provide smart, innovative solutions that lessen the environmental impact of a project, while providing an economic advantage to our clients.

Simply stated, it’s a better way of building.
Water Management Solutions

Water Management is the collection and transportation of rainwater, groundwater, or other fluids such as leachates and gases. Over time, engineers and architects have battled groundwater seepage problems with large, expensive, and unpredictable aggregate drainage systems.

Nilex’s prefabricated, engineered drainage systems provide an effective and economic alternative to conventional drainage systems such as french drains, chimney drains, or rock drains that consume considerably more space and use non-renewable granular materials.

Our Water Management products reduce the need for natural resources and are easier to install, lowering the overall project cost while providing optimal performance with long-term protection.

Types of Projects

- Stormwater Management
- Low Impact Development
- Roadway/Parking Drainage
- Sports Fields & Golf Courses
- Green Roofs
- Building Envelope Waterproofing
- Groundwater Conveyance
- Clean/Contaminated Water Diversions
- Flood Mitigation
- Creek Crossings

Advantages

- Technical – Engineered product line to fit most water management challenges.
- Economical – Less material required. Lower labour costs.
- Environmental – Less need for non-renewable resources. Reduce the carbon footprint.

Quantifiable Savings

Using our proprietary and validated Innovation Calculator, we can calculate the economic and environmental benefits of implementing our geosynthetic products in your civil, resource and environmental construction projects versus conventional construction practices.

Technical Support

Nilex has a team of experienced Application Specialists, including professional engineers, with in-depth knowledge of their application area. They function across all Nilex regions and can provide assistance in determining the best solution for the challenges you face at any stage of a project.

By engaging Nilex at the earliest stages of your project, our experienced technical support team can assist in developing concepts to support or undertake full construction design, and provide advice and site support to assist you in effectively installing our products and systems.
Stormwater Management

As stormwater is absorbed into the ground it replenishes aquifers and flows into streams and rivers. In developed areas, impervious surfaces prevent stormwater from naturally infiltrating into the ground. This runoff water can cause stream bank erosion, habitat destruction, infrastructure damage and downstream flooding.

Nilex’s stormwater management solutions are meant to mimic the natural hydrology of pre-construction (natural state) to post-construction by utilizing Low Impact Development (LID) techniques. Our stormwater chamber systems act as replacements for ponds, concrete structures or pipe and stone installations in the management and absorption of natural stormwater. They allow for more controlled infiltration into the ground while requiring less area and crushed stone for installation when compared to conventional systems.

In commercial applications, retail development is directly related to the number of parking spaces available. Our stormwater management solutions are utilized beneath parking areas and these subsurface installations maximize land use, creating room for additional parking spaces.

Some solutions are location specific and may not be available in all areas. Contact a Nilex office to check availability.
Building Envelope Waterproofing Systems

**Green Roofs/Horizontal Drainage**

Nilex’s Horizontal Drainage systems are used to improve drainage and replace or reduce natural aggregate drainage materials in horizontal applications such as plaza decks, green roofs, patios, planters, roadways and parking lots.

On parking decks, water seepage damages lower floors and contents. On plaza decks, water in the sub-base can cause settlement and freeze-thaw problems. Structural design requirements for height and strength make aggregate drains impractical and cost prohibitive. Our prefabricated drains provide protection for waterproofing systems as well as positive drainage in the minimum amount of space (elevation) and weight, both critical elements in roof and deck applications. In planters, planting soil is retained while water passes into the drainage core and is then conveyed into the collection system.

For green roofs, our prefabricated drains provide three essential functions. The perforated core design allows for the drainage of excess water from the growing medium to prevent drowning and root rot. The back of the molded dimples provides water storage for plants. The three-dimensional design provides a continuous, open air space for aeration that creates a healthy plant environment.

**Foundation/Vertical Drainage**

Nilex’s Vertical Drainage products are designed to reduce hydrostatic pressure behind structures, reducing the likelihood of structural damage caused by foundation movements in expansive soils. They replace or enhance conventional aggregate drainage systems used against structures such as retaining walls, foundation walls, bridge abutments, lagging walls and soil-nailing applications.

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**Low Impact Development**

Low Impact Development (LID) designs focus on implementing better site design practices and site-specific stormwater control options such as green roofs, stormwater capture and re-use, and landscape designs that increase the absorption and filtration of rainwater through the use of permeable surfaces.

The fundamental approach of using micro-scale management practices and source control has great potential to generate substantial benefits in existing urbanized watersheds. Furthermore, many LID techniques, like infiltration/detention systems and green roofs, are good for urban retrofit projects since they are easily integrated into existing infrastructure like roads, parking areas, buildings and open spaces.
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Floodwater Mitigation

Floodwater mitigation involves managing and controlling flood water movement resulting from high tides, higher run-off and winter storms through the use of flood walls. Cut-off walls should be used to manage low lying flood plains, manage seepage and at sites where groundwater is contaminated, to protect critical structures within these areas. Flood walls protect some of the nation’s most valuable assets including international airports and refineries.

Nilex’s flood wall solutions prepare for, recover from, and prevent disasters related to climate change. Pre-planning is of the utmost importance when facing the risk of a flood. It is crucial to have flood mitigation solutions in place before an emergency occurs.
Recreational & Landscape Drainage

Facility managers are under persistent pressure to keep fields healthy, attractive and ready for use. Using fields during saturated conditions compacts the soil, consequently threatening the turf. Since we are unable to control the weather, more extensive and intensive drainage is needed than what can be provided by conventional systems.

Nilex prefabricated drainage systems are designed to suit a variety of applications, providing significant cost and environmental savings by minimizing the amount of spoil material that is excavated and transported from site, and the amount of drainage aggregate processed, transported and placed on-site. They are an economical and environmentally friendly option to conventional aggregate drains, providing proven drainage capabilities, long-term performance and filtration.

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Products are only part of any solution. In addition to our Water Management solutions, Nilex offers a wide range of services designed to help our customers get the most from their construction budget.

**Design/Build**
Nilex has the experience and capacity to partner with design/build teams providing crucial input to reap significant economies over conventionally designed projects. Whenever materials need to be moved, removed, imported, or protected, Nilex offers innovative options to simply build better, and at lower cost.

**Distribution**
Nilex products are available at convenient regional locations across Canada and the US. We offer our customers the availability of in-stock product and speedy delivery, often required to meet changing project deadlines.

**Design Support**
Nilex provides professional design and engineering support to help customers utilize Nilex technologies and increase project quality and life expectancy while reducing costs.

**Services**
In addition to project management and design assistance, Nilex offers the following in-house services to further assist our clients with their projects.

**Fabrication**
Nilex’s in-house fabrication facility has the ability to convert existing geosynthetic products into custom sizes, including geomembrane seaming and geotextile sewing, to increase the width and/or roll size of the original product to meet the needs of a project. In addition, Nilex can fabricate a wide range of erosion and sediment control materials in custom sizes including silt fence, silt curtains, dewatering bags, and more.

**Project Services & Installation**
Nilex provides project management and installation services for projects where geosynthetics and geoenvironmental products are utilized. Areas of specialization include liner containment systems, water management solutions and erosion control applications. Depending on the size of the project, nature of the work, and owner’s requirements, Nilex can provide services as a subcontractor, general contractor, or joint venture partner.

To find out how Nilex can help you on your next construction project, visit our website at www.nilex.com or contact us at 1.800.667.4811

*Contact Nilex to check on service availability in your area.*