

# Layers of Experience. Layers of Innovation.











# **Extensive and Intensive Vegetated Roof Systems**

Ecological, Economical, Lightweight, Excellent Cover, Easy to Install and Retractable | Extensive systems include plantings like sedum, herbs, small wildflowers and grasses that thrive in shallow depth systems.

**Enhanced Biodiversity, Rooftop Oasis, Virtually Limitless Options** | Semi and Intensive systems offer a greater plant palette made up of larger forbs, grasses, and woody plants which flourish in deeper depth systems. Higher irrigation demands can be optimized by reusing rain runoff.

Wide Range of Public and Private Benefits | Enhance aesthetics, Recreational spaces, Reduce energy demand, Increase roof membrane life, Enhance biodiversity, Improve air quality, Mitigate urban heat island, Reduce stormwater runoff. Meet Toronto Green Standard V4; WQ 1.1 Water balance & Quantity control and W.Q 1.3 Onsite Green Infrastructure.

## **Extensive Systems**

## LiteN'Less™, XeroFlor®

Ideal solution for retrofits, factories & warehouses that avoids excessive loading



#### **Key Features**

- Lightest weight & soilless
- Pregrown; Instant green results
- Low maintenance

#### Properties (starting at):

- Thickness: 54 mm (2.1 in)
- Weight: 49 kg/m² (10 psf)
- Water Retention: 29 L/m² (0.7 in)

# TerraEXT Cool & Resilient



#### **Key Features**

- Resilient to extreme temperatures
- Pregrown; Instant green results
- Low maintenance

#### Properties (starting at):

- Thickness: 118 mm (4.7 in)
- Weight: 144 kg/m² (30 psf)
- Water Retention: 56 L/m² (2.2 in)

# **Intensive Systems**

## Alpine Meadow Native & Biodiverse Biodiverse Option



#### **Key Features**

- Manages stormwater & supports biodiversity
- Pregrown; Instant green results
- Custom accent plant add-ons

#### **Properties** (starting at):

- Thickness: 168 mm (6.6 in)
- Weight: 222 kg/m² (45 psf)
- Water Retention: 88 L/m² (3.5 in)

#### Flora Garden

Unlimited Opportunities
Meets TGS V4 Intensive Option



#### **Key Features**

- Maximum native & non-native biodiversity
- Urban oasis & ecological habitat
- Full plant customization

#### **Properties** (starting at):

- Thickness: 212 mm (8.4 in)
- Weight: 295 kg/m² (60 psf)
- Water Retention: 110 L/m² (4.3 in)

# Specialized Stormwater Management Systems

Vegetated roofs help urban centres replenish their green spaces; restoring natural hydrology to manage runoff by way of two mechanisms: Retention and Detention.

Traditional green roofs retain water and prevent it from landing in the sewers. Innovative technology with water retention layers improve retention for maximum benefit.

Detention does not obstruct runoff; opting instead to slow it down until a more convenient time. Runoff is stored temporarily on the roof and drains at a calculated rate; A full-fledged stormwater management tool ready to face second day and extra-large storms.

Two different detention technologies are available based on the slope of the roof.

## **Stormwater Retention Systems**

## StormCap<sup>™</sup> Superior Retention



#### **Key Features**

- High water retention-toweight ratio
- Pre-grown; Instant green results
- Low maintenance

#### Properties (starting at):

Thickness: 114 mm (4.5 in)

Weight: 130 kg/m² (27 psf)

Water Retention: 87 L/m² (3.4 in)

## Alpine Meadow+

Biodiversity & Enhanced Retention & Reuse Meets TGS V4 Biodiverse Option



### **Key Features**

- Manages stormwater & supports biodiversity
- Attracts pollinators like bees & butterflies
- Pregrown; Instant green results
- Custom accent plant add-ons

#### Properties (starting at):

Thickness: 194 mm (7.7 in)

Weight: 250 kg/m² (51 psf)

Water Retention: 113 L/m² (4.5 in)

## **Stormwater Detention Systems** (Blue-Green Roofs)

REDUCES OR ELIMINATES CISTERNS & SAVES VALUABLE SPACE

## StormCap<sup>TM</sup> Detain 3° **Friction Detention**



#### **Key Features**

- Most efficient solution on low-sloped roofs
- Manages peak flow using a friction-transmissivity layer
- Improves retention

#### Properties (customizable):

- Thickness: 201 mm (7.9 in)
- Weight: 137 kg/m2 (27 psf)
- Release rate: ≤ 42 L/s/ha.
- Max. detention capacity: 10 L/m² (4 in)

## TerraExt Detain 0° **Ponding Detention**



## **Key Features**

- Most efficient on dead flat (0°) roofs
- Manages peak flow using control flow drains
- Detention storage layer is compatible with any green roof system

#### Properties (typical):

- Thickness: 221 mm (8.7 in)
- Weight: 151 kg/m² (31 psf)
- Release rate: ≤ 42 L/s/ha.
- Max. detention capacity: 10 L/m² (4 in)





# Over 85 Years Experience









## 2.5 Million Square Feet of Green Roofs

## Canada's Coast to Coast Supplier

Proud of our team's more than 85 years combined experience in the green roof industry and commitment to customer satisfaction.

## **Putting Storms in Their Place**

NLSM delivers rooftop solutions to optimize stormwater management. Meeting your goals with leading edge and best value-for-money innovations.

## **Supplier**

Your single-source solution for a complete system package. Onestop-shop supplying engineered pre-grown vegetated mats, high performing base layers and accessories.

NLSM supplies the original soilless vegetated system, Xeroflor XF301, gracing hundreds of buildings coast-to-coast covering thousands of square metres. NLSM has the most comprehensive selection of extensive vegetated systems to meet every design goal.

## **Independently Tested**

Systems tested to CSA A123.24 Standard Test Method for Wind Resistance of Modular Vegetated Roof Assembly. We provide project -specific P.Eng stamped wind resistance letters.



## Technical Advice, Design and Planning

We've got you covered. Providing technical & design consulting, support meeting municipal requirements, budgetary estimates and quotes, construction documentation (specifications, CAD details), warranty, inspections and on-going maintenance support.

## **Certified Installer Training**

We supply to contractors who have achieved the necessary professional training to install our systems. Many certified installers provide on-going maintenance to ensure great aesthetics and optimal performance.

Next Level Stormwater Management
Toronto 416.637.5772 | Vancouver 604.396.5772 | nlsm.ca