

## **Layered System for Intensive Green Roofs**

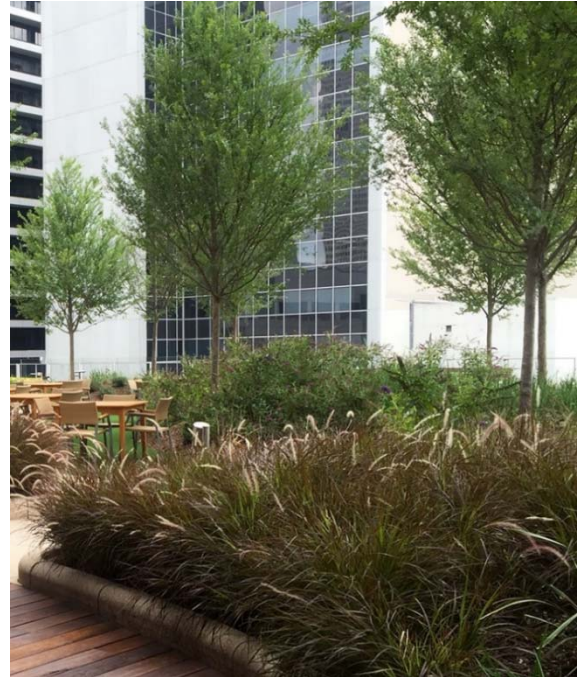
PLAZA DECKS AND ROOFTOP GARDENS

### **Description:**

The Intensive Layered green roof is a deeper media system designed for a wider variety of plant material, including perennials, shrubs and trees. Columbia Green Intensive growing media, engineered to support a wide variety of plant material, is used in this system. The Intensive system provides maximum design flexibility, and consists of a drainage layer, filtration layer, and optional water retention layer. This system can be used in any landscape design, installed on the roof or in large garden containers and rooftop planters. The system is easy to install- layers can be cut in the field to fit curves and irregular shapes.

The Intensive Layered System is designed to retain water and decrease stormwater runoff. Once saturated, any excess water moves efficiently through the system and to the nearest roof drain. The Intensive Layered Green Roof promotes plant health, allowing airflow in the drainage layer and through the media. The underlying membrane is protected with a root barrier and separation fabric per the membrane requirements.

Growing media depths should be based on root space requirements for plant material selected, structural requirements, and stormwater retention goals. Depths typically range from 8" to 36"+. Consult with structural engineer to ensure your building accommodates the saturated weight of system.



### **System Components:**

1. 0.75" Drainage Layer

*Designed to mitigate excess moisture through ventilation and promote efficient drainage of the growing media*

- Description: .75" Thick highly permeable three dimensional entangled polypropylene matrix
- Installation: Do not overlap material. Install parallel to slope.

2. Filtration layer

*Adhered to the Drainage Layer, prevents erosion of the growing media*

- Description: Durable spun-bonded polyester with non-directional weave
- Installation: Overlap using provided 3" seams

3. 0.5" Water Retention Layer [Optional]:

*Provides supplemental moisture retention for green roof plants, and anchorage for plant roots*

- Description: High loft nonwoven polyester blanket with anchorage points for promoting solid root structures
- Installation: Do not overlap material. Install perpendicular to slope.

4. Growing Media: Columbia Green Intensive Growing Media, Regionally Sourced

*See Columbia Green Growing Media Technical Information Sheet*

5. Plants: Selected by Designer

### **Storage:**

- Store components in a dry area.
- Store away from sources of ignition and extremely high temperatures.

### **Precautions:**

- Avoid prolonged exposure to sunlight, heat, sparks and open flames.
- Wash exposed skin prior to eating, drinking or smoking and at the end of each shift.

**LEED Materials Transparency Information:**

Post-Consumer Recycled Content and Manufacturing Locations:

- Drainage 40% ; Euclid, Ohio 44117
- Filtration 0% ; Euclid, Ohio 44117
- Water Retention Please Inquire; Michigan City, IN 4636

**Packaging/Component Size:**

<b>0.5" Water Retention Layer (Optional), ML2002</b>	
Thickness:	.65" +/- .10"
Dimension:	90"W. x 107'L.
Coverage:	800 ft <sup>2</sup>
Weight:	3.6 oz./yd <sup>2</sup>
Packaging:	30"± dia. roll

<b>Filtration Layer (Attached to Drainage Layer)</b>	
Weight:	3 oz./yd <sup>2</sup> (0.33 oz./ft <sup>2</sup> )
<b>0.75" Drainage Layer, ML2005</b>	
Thickness:	0.75"
Dimension:	48"W. x 50'L.
Coverage:	200 ft <sup>2</sup>
Weight:	16oz./yd <sup>2</sup> (1.78 oz./ft <sup>2</sup> )
Packaging:	24"± dia. roll



**System Weight\*:** Includes .75" Drainage Layer, .5" Water Retention Layer (optional), and 5 lbs/s.f. for container plants

<b>System Depth</b>	<b>Dry Weight</b>	<b>Saturated Weight</b>
8" Media Depth	34 - 41 lbs./ft <sup>2</sup>	54 - 63 lbs./ft <sup>2</sup>
10" Media Depth	41 - 49 lbs./ft <sup>2</sup>	66 - 77 lbs./ft <sup>2</sup>
12" Media Depth	49 - 58 lbs./ft <sup>2</sup>	78 - 91 lbs./ft <sup>2</sup>

\* System weights vary by region due to variances in growing media weight contact your local representative for more information.

