

## Product Evaluation

### RE: Review of Atlantis Ecological Systems

#### **PRODUCT**

Atlantis Ecological Systems surface and sub surface infiltration storm water drainage that results in clean water that can be reused or allowed to re-enter the natural water system. The system comprises of Atlantis Strip Filter Drain, Atlantis G-O Drain, Atlantis Matrix Tank Module and Atlantis Turf Cell. Atlantis products are manufactured by Atlantis Corporation, Australia and distributed by Layfield Geosynthetics & Industrial Fabrics Ltd located in Edmonton.

#### **VENDOR CLAIMS AND INFORMATION**

##### **CLAIMS**

The Atlantis Ecological System uses infiltration techniques. As water infiltrates the system it is purified and filtered through specially designed Atlantis products. The system allows water to percolate into surrounding soil, recharging the water table and providing moisture for surrounding vegetation. Product web link: <http://www.atlantiscorp.com.au/>

##### **DESCRIPTION**

The Atlantis System has a 95% void structure product made of recycled inspected polypropylene and is wrapped in geo-textile fabric. Its high void space area combined with its load bearing capacity makes it a strong alternative over perforated pipe systems and a long term solution for surface or subsurface water designs.

##### **POTENTIAL USAGE**

The Atlantis Ecological System has been installed in over 30 countries for highway, railway and airport drainage.

##### **STANDARDS**

Test results for ultimate load are provided for Atlantis 300 mm and 52 mm Drainage Cells, Atlantis Strip Filter Pipe and Atlantis D-Raintank.

	Flow Rate	Crush Strength
Atlantis Strip Filter Drain 80 x 100 mm by any length	80 L/min	33.5 kN
Atlantis G-O Drain 80 x 250 mm by any length	120 L/min	33.5kN
Atlantis 30 mm Drainage Cell 30 mm x 405 mm x 607 mm	80 L/min	80 t/m <sup>2</sup>
Atlantis 50 mm Drainage Cell 52 mm x 260 mm x 480 mm	142 L/min	150 t/m <sup>2</sup>
Atlantis Strip Filter Pipe 100 mm x 80 mm x 3125 mm	80 L/min	3.5 t/m <sup>2</sup>
Atlantis Turf Cell 52 x 260 x 480 mm	142 L/min	150 t/m <sup>2</sup>

#### **ALBERTA TRANSPORTATION COMMENTS**

##### **EXPERIENCE**

Alberta Transportation has no experience with this product.

##### **APPLICABLE STANDARDS**

Alberta Transportation specification for perforated pipe subdrains is as follows:

Standard Specification for Highway Construction, Specification 2.8 Perforated Pipe Subdrains

**RECOMMENDATIONS:**

Atlantis Ecological System be listed as a Proven Product under Alberta Transportation Products List, Drainage Systems – Proprietary, based on the information provided.

**TRAIL PROJECTS**

City of Cochrane (Gleneagles Subdivision); County of Strathcona (Heritage Hills, E. of Sherwood Park); LRT Extension – Crowchild (Calgary); Post Hills Residential Complex – Springbank (Calgary); Maple Leaf Self Storage (NE Calgary); Edgeworth Place (Spruce Grove); Red Deer RCMP Facility Upgrade; Patterson Blvd, SW Calgary

Joe Filice

cc New Product Evaluation Standing Committee – Roger Skirrow, Fred Cheng