NOT YOUR ORDINARY PARKING LOT

MÉLANIE GLORIEUX

AT FIRST GLANCE, the expanded municipal parking lot in Mont-Saint-Hilaire, a town 35 km south of Montreal, appears to be an essentially ordinary parking lot, distinguished only by its wide planted medians. Included in the space to abate the heat-island effect, these strips of vegetation also create an alternative form of runoff management. Also known as a "rain garden" (a term more typically used in residential settings), a bioretention island is a landscaped surface designed to receive rainfall runoff downstream from an impermeable surface. This emerging practice, which remains relatively unknown in Quebec, transforms elements of the urban fabric into green infrastructures. These elements make it possible to manage drainage without resorting to traditional stormwater grid designs. They include trees, shrubs and perennials and intercept, collect and filter rainwater, reducing the impact of urbanization on the natural environment. Infiltration works not only through the porosity of the topsoil, but also through the channels created by the root systems of the various plants and trees.

This parking-lot project was designed to be unique in a number of ways. First, several municipal departments (engineering, planning, green spaces and maintenance) worked with the consulting landscape architect on the design; second, it serves as a tangible demonstration for the city to its residents and neighboring municipalities, showing that it is possible to do things differently. Since its completion in fall of 2009, residents have made many highly positive comments on the design in regards to the plantings. The question asked most frequently at presentations is: does it work in winter? After three winters and two growing seasons, the results are consistent with expectations. The parking surfaces drain into the cells year round, and the plantings are maturing very well. The manager for the city's green spaces has even noted that the shrubs are doing noticeably better than those planted in more conventional settings. Apart from moderate watering in the weeks following planting, all water has come from rainfall. The only maintenance is the management of spontaneously occurring vegetation, which is removed or allowed to remain on a case-by-case basis.

The bioretention cells create continuous, fairly large planting areas where vegetation, particularly trees, can grow. With more than 10 m3 (270 cubic feet) of soil volume per tree, there is room for them to reach levels of maturity seldom seen in urban areas. The greening of the parking lot includes measures designed to let a variety of plantings flourish, in the process yielding the greatest possible benefit to the community by improving air quality and reducing the negative impacts of stormwater runoff on the urban environment.

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1 THE SHRUBS HAVE DEVELOPED IN A SPECTACULAR FASHION **2** THE PARKING IS NOT SO DIFFERENT FROM A STANDARD LOT | **1** L'EPANOUISSEMENT DES ARBUSTES EST VISIBLEMENT SUPERIEUR **2** LE STATIONNEMENT N'APPARAÎT PAS SI DIFFÉRENT D'UN STATIONNEMENT STANDARD. **PHOTOS** MÉLANIE GLORIEUX, OBJECTIF PAYSAGE

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