Support for street trees could find underground solution

By Brock Weir

Trees lining busy streets in cities and towns either flourish to form an attractive canopy over the streetscape, or serve as stunted and blighted reminders of just how far out of the countryside you are.

Aurora's more urban streets are largely devoid of trees, but this could soon come to an end.

Councillors are expected to tackle this week further details for streetscapes under the Aurora Promenade Plan. Reviewing the plans last week, however, staff have been tasked with investigating implementing an intricate underground plan to help trees thrive.

The motion was made by Councillor John Abel to investigate the costs associated with installing ?Silva Cell? technology under new sidewalks. The cells provide intricate infrastructure under the surface to help tree roots dig deep into the soil and form strong networks.

?Trees really have a challenge growing on concrete sidewalks right adjacent to roads,? said Councillor Abel. ?They tend to be stunted and they get so stunted they get girded. Special planning advancements [are needed] otherwise we would just be wasting our money.?

Going forward and at least investigating the costs of implementing such a program was largely supported by Council, particularly Councillor John Gallo who cited similar installations in Toronto's Yorkville neighbourhood.

?I agree that the concept should definitely be explored,? said Councillor Gallo. ?It is not an inexpensive thing, but if we're going to put trees in [the Promenade area] we might as well do this right.?

According to the developers of the Silva Cell, it is a network of ?building blocks? which hold good stores of soil under paving like roads and sidewalks for healthy tree development. The soil is not compacted to allow for maximum growth and can be tailored in size both to the type of streetscape and the types of trees in question.

?By combining on-site storm water management with expanded rooting volumes for healthy tree growth, Silva Cells create an unparalleled ability to restore ecological function to developed areas,? say the innovators. ?The Silva Cell integrates tree and soil with storm water management, utilizing the proven capacity of soils to act as an underground bioretention system.

?When rainfall moves across impermeable paving, it picks up pollutants. As it is channelled off-site, it deposits these pollutants in oceans, lakes, rivers and wetlands. This runoff, a leading cause of urban pollution, is significantly mitigated by the use of the Silva Cell. Through soil filtration, bioremediation and evapotraspiration, the Silva Cell treats storm water directly on site, restoring ecosystem services and saving money while protecting one of our most valuable resources.?

This cost, however, is high and was one of the reasons Councillor Paul Pirri said he did not support going forward with investigating he cost.

?It requires a large portion of sidewalks to be torn up to put these cells in place in the ground,? said Councillor Paul Pirri. ?In doing so, we have to replace the sidewalks so $1 million a year [to replace sidewalks under the Promenade Plan] would still be in existence. It is a great technology for trees going down the road, but it can be a lengthy process and it is an expensive process, but is great for the trees.?