Kingston Park Pavilion
Showcasing Salvaged Local Wood

With over 10 million trees in Toronto alone, GTA residents are fortunate to live in a thriving and mature urban forest that cleans our air, beautifies our streets and provides countless ecological and social benefits. While the urban forest is not threatened by fire or large-scale logging, it is currently being attacked by invasive species similar to the Mountain Pine Beetle, which recently devastated the forests of the Rocky Mountains in British Columbia.

By Geoffrey Gibson

A native to Asia and Eastern Russia, the Emerald Ash Borer (EAB) was discovered in North America in 2002 and in Toronto in 2007. Attacking the bark and feeding systems of healthy Green and White Ash trees, the EAB has already killed an estimated 50 to 100 million trees in North America, and is expected to kill nearly all of the 860,000 Ash trees which line Toronto’s streets, parks and backyards by 2020. This die off will have a significant impact on the urban ecosystem in the GTA, yet it provides an opportunity to incorporate local heritage into our buildings.

Ash is a very strong hardwood, ideal for use in furniture but tougher to work with as a building material than cedar, for example. However, this toughness means it is durable to both human and natural impacts and is excellent for use as siding, flooring, soffit, facia and much more. (Continues p.24)
The design mimics the corn cribs found throughout the Chatham-Kent landscape, giving the park a stronger visual connection to the community [4].

Chatham-Kent was one of the first municipalities hit by the EAB in Ontario, and in partnership with architecture firm Brown and Storey they incorporated salvaged local ash into the redesign of the Kingston Park Pavilion, which won a Wood Works award for excellence in wood building in 2011. Salvaged ash was central to the key objective of the new Pavilion, which architect Kim Storey described as “to turn around the standard utilitarian image of the ‘concrete block field houses’ that seem to proliferate through city parks”. Since the redesign, Kingston Park is now the most popular park in Chatham-Kent with over 1,000 visitors daily in a city of 30,000.

Deborah Veccia of the Chatham-Kent Parks Department credits the ash with giving the Pavilion a much softer design and feel than you would typically have in a municipal park. As well, the wood and design were intended to mimic the corn cribs found throughout the Chatham-Kent landscape and have given the park a stronger visual connection to its community and surroundings.

“The loss of the ash trees in Southwestern Ontario was tragic” says Storey, and in Kingston Park instead of going to Ontario’s strained landfills, this innovative approach gave the ash “a second life”. In addition, the new park pathways use recycled concrete paving slabs from old pool decks demolished in the park, upon which you can still see the yellow ‘No Running’ warnings. Storey says this also memorializes the “thousands of children’s feet ‘not running’ across the pool deck and now running across Kingston Park”.

The on-going devastation of the GTA’s Ash trees is tragic yet through salvaging and re-use, this part of our natural heritage can still be saved and incorporated into buildings throughout the region to give us a stronger sense of place, to prevent our forests from going to landfill, and to bring us closer to our trees upon which we depend for a healthy and green urban environment.

Determining the most suitable and sustainable building materials for a project can be challenging. Adding to the traditional purchasing considerations [cost, availability, utility and performance] there is increased pressure for procurement managers to use environmentally and socially responsible materials. To achieve this, it is important to consider metrics like a product’s lifecycle [how it is extracted to how it is disposed of or recycled]; embodied energy [the sum total of the energy necessary for an entire product life-cycle]; level of toxicity and chemical emissions; and even its social implications [e.g. equity, labour practices, human displacement].

Eco-label and eco-certification programs have made it easier for procurement managers to incorporate environmental factors into their purchasing decisions by increasing product transparency and synthesizing multifaceted product information into easily understandable ratings and endorsements. The number of these programs around the world has increased 20 to 30 percent per year over the last decade, leaving today’s buyers with dozens of diverse labels to consider.

They now address everything from the low chemical emissions of flooring and furniture [e.g. FloorScore and level™] to the responsible management and production of wood and concrete [e.g. Forest Stewardship Council and Ready Mixed Concrete Association of Ontario]. There is value in the current breadth of the eco-label market: buyers get the information they need on the products they care about, and more of the intricacies of environmental sustainability can be accommodated.

On the other hand, this variety also leads to a largely fragmented market that can confuse both end users and product producers. Moreover, fragmentation raises questions as to whether all of the important system and life-cycle considerations are actually being made. After all, a product may receive a label for low volatile organic compounds [VOCs] but be a poor performer when it comes to energy efficiency, recyclability, durability and life-cycle costing. Tools like the National Institute of Standards and Technology’s Building for Environmental and Economic Sustainability software and McGill University’s Material Analysis Tool have been developed in recent years to address this, but remain in their infancy.

Eco-labels, and their related tools, will continue to play an important role in increasing the environmental awareness around, and performance of, our building products. They provide effective baselines for green products, increase transparency, incentivize higher environmental performance and give buyers the information they need to make informed decisions.

Nonetheless, it remains important to move forward with prudence. Eco-certification must never be viewed as an end, but merely as one of the many important tools to guide and inform the work of sustainability practitioners. There also remains a market need for complete integration of the valuable environmental information eco-label providers gather. This information must then be combined objectively with the all-important economic considerations [i.e. cost, utility and performance]. Only when product selection tools paint a complete and balanced picture of environmental, social and economic metrics can we ensure that our building products are not only green, but truly sustainable in every sense of the word.