Case Study

Project: Environmentally responsible school playground

Canadian Wood
www.canadianwood.in

Using naturally durable wood
to create a school playground

Canadian Wood species:

The fine art of working with wood

Institution Profile

The client is a Mumbai-based non-governmental organization. They have a mission to equip children from marginalized communities with high-quality, value-based education, enabling the development of their limitless potential. Over the past 19 years, the NGO has worked extensively with children living in slum communities in Mumbai and remote tribal communities in Igatpuri.

In Igatpuri (Maharashtra), the NGO has set up an education centre for tribal children in the remote village of Awalkheda. The centre currently has a pre-primary section and reaches out to children from the village and eight neighbouring hamlets.

Challenge

To provide environmentally responsible wooden playground equipment which would be functional, strong and attractive. It should be able to withstand daily wear and tear yet demonstrate durability in the harsh Indian climate.

Opportunity

The chosen species were yellow cedar and western red cedar (WRC). All Canadian Wood species are sustainably and legally sourced and certified by FSC/PEFC. The cedars in particular are classified under North American, Australian and European standards as being naturally durable against the elements including direct sun, UV, heavy monsoon rain, high humidity, fungi, mold and termites. This is a practical opportunity to demonstrate the wood's performance under Indian conditions in a demanding setting where the wood is also in ground contact, highly visible and used daily. At the same time providing a safe and enjoyable experience for infant and primary school age children is a satisfying outcome for Canadian Wood.

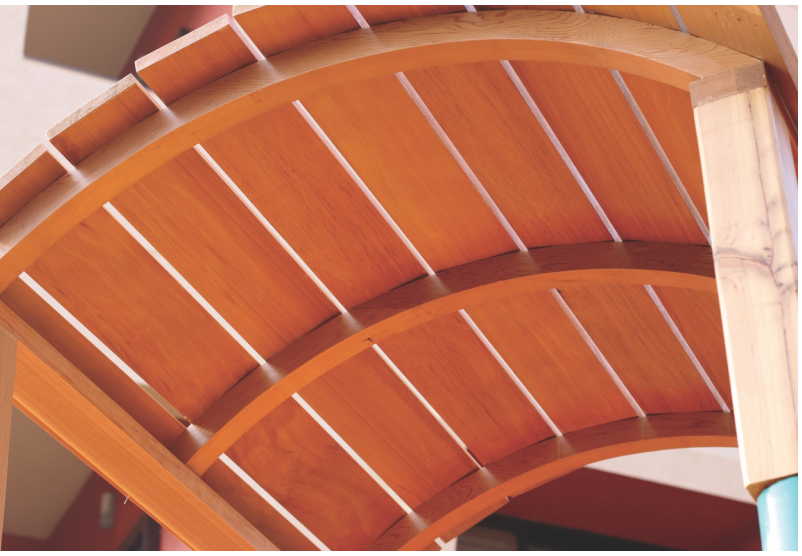
Product Trials

- Yellow cedar and WRC were chosen due to these species' durability, colour, attractive grain and strength-to-weight ratios.
- Yellow cedar STK and #1 Shop/D Clear, WRC #2 Shop and #2 Clear were the grades chosen. The yellow cedar had arrived from Canada in KD form, seasoned to 10% - 12% whereas the WRC was air-dried in Mumbai during the previous 6 months.
- The seasoned wood was supplied to local Mumbai manufacturer, who fabricated the playground equipment in accordance with the NGO's specifications.
- The manufacturer found the wood easy to process due to its excellent working properties and were very satisfied with the products. In addition they were complimentary of high recovery, low impact on tools and carpenter satisfaction.

Key Takeouts

Functional, durable, environmentally responsible and kid friendly products

- The relatively simple design concept capitalizes on the natural colour and design values of Canadian Wood species.
- The low to medium density of WRC and yellow cedar is advantageous for fine finishing and easy installation in outdoor settings.
- Resistance to splintering, ease of fastening and gluing and natural durability make these species the safe and natural choice for all outdoor projects.



Why Use Canadian Wood?

Sustainable, Green Building Material
British Columbia, Canada is a world leader in sustainable forest management. The rigor of B.C.'s forest management laws is demonstrated by third-party forest certifications (PEFC/FSC).

Long-Term Performance
Wood's versatility, character and individuality are unmatched. When it is properly maintained, wood can be reused, repurposed, and reapplied to other projects. Canadian wood species produce stable lumber with consistently straight grain. The wood is easy to work, finish and glue.

Easy to Manufacture
With low to moderate density values, species like western hemlock, Douglas-fir, yellow cedar, western red cedar and spruce-pine-fir (S-P-F) are all easy to face-laminate, edge-glue, and/or finger-joint.

Quality Assurance
Canadian wood species from B.C. are separated into a wide variety of grades and each grade is intended for a specific end use. Factory grades are intended for ripping or cross cutting to recover the wood's clear fibre; the clear grades help produce knot-free products in a length range of 8-20 feet. This variety of grades allows buyers to choose a quality that suits both their needs and their price considerations.

Multipurpose Applications
Because of their low tangential to radial shrinkage (T/R) ratio, softwoods typically have better stability than hardwoods. Softwoods are well suited to many applications across outdoor, interior and structural uses.

If you're interested in incorporating Canadian wood species into your product line, the 'Try Canadian Wood' initiative is an ideal way to use, experiment and understand wood's numerous advantages.

For free technical/procurement assistance write to FII India at info@canadianwood.in or call+91 2249221600.

For design inspiration and decor ideas using wood, follow us on

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Canada

Western hemlock | Douglas-fir | Yellow cedar | Western red cedar | Spruce-Pine-Fir (S-P-F)

FII India has made every attempt to ensure the accuracy and reliability of the information provided with input from each trial partner.