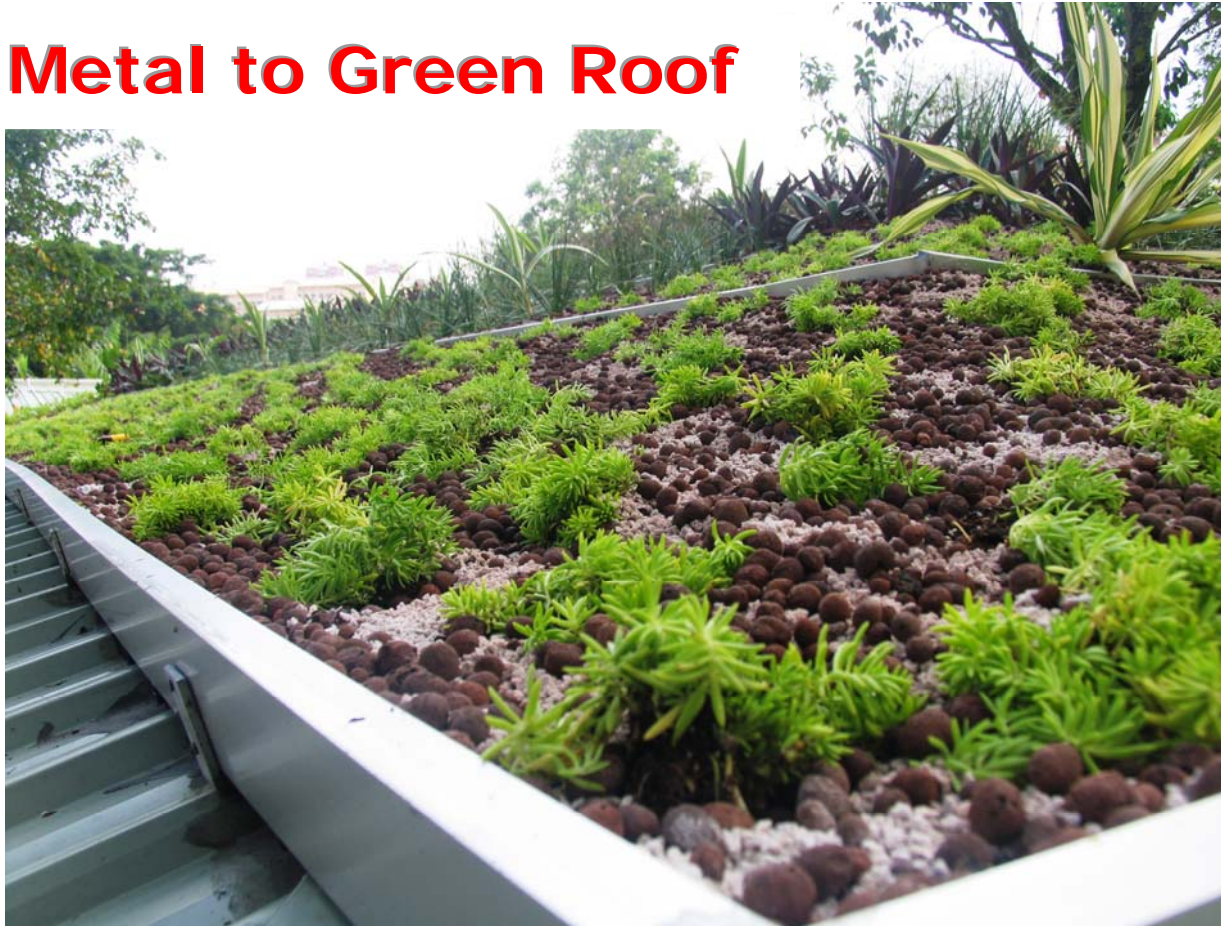


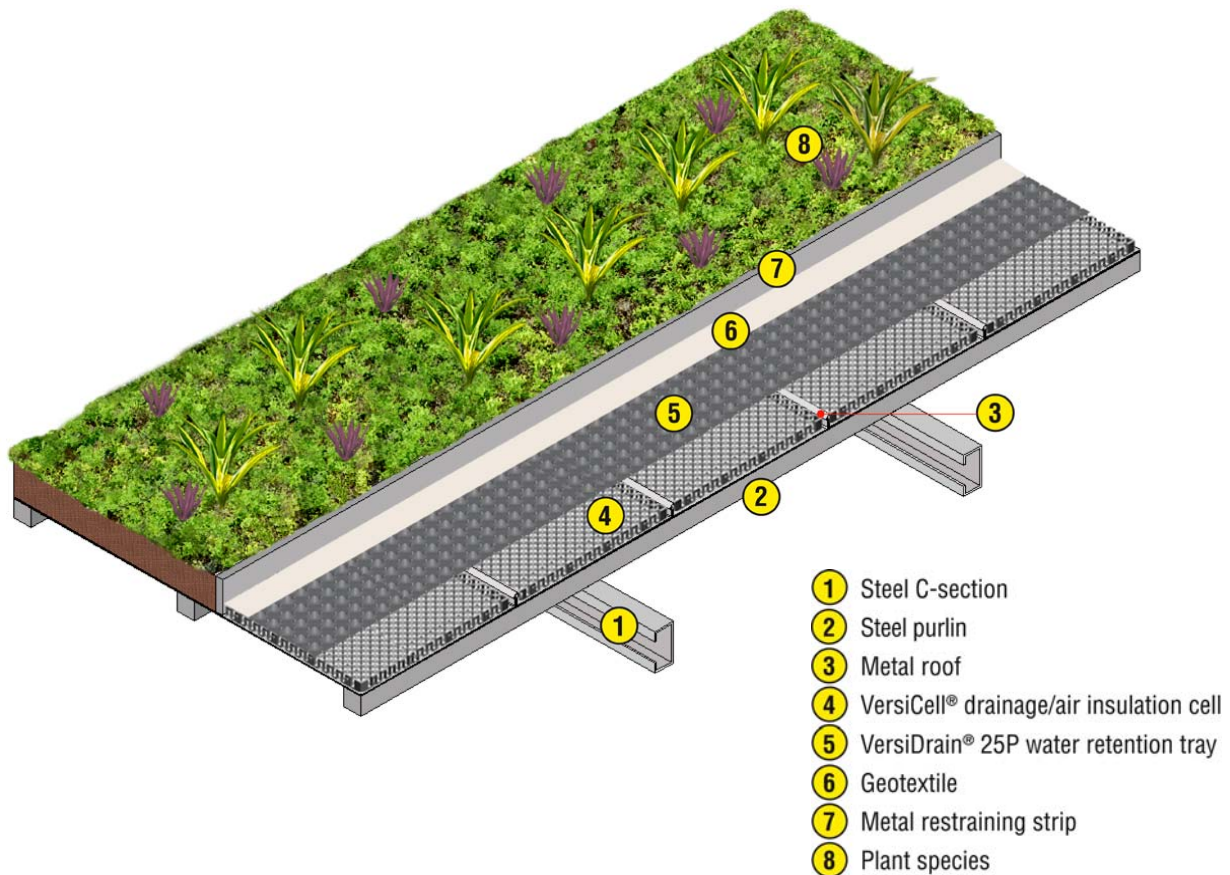
Elmich a leading designer and manufacturer of landscape products for the building and construction industries world-wide, has developed a system that allows the low cost conversion of metal roofs to functional and attractive green roofs.

Metal to Green Roof



The Aramsa Garden Spa, a garden sanctuary set in the heartland of Bishan Park in Singapore, was selected as the location. The unattractive metal roof detracted from the spa environment, created excessive noise during periods of heavy rainfall and did not provide insulation against high ambient tropical temperatures and humidity.

VersiCell[®] high strength 30mm interlocking drainage cells were placed between the metal ribs to provide an insulation barrier and a level surface for subsequent installation of **VersiDrain**[®] 25P drainage and water retention trays. Geotextile filter fabric was positioned on the **VersiDrain 25P** trays and lightweight pH stabilized “soil-less” pumice and leca chip mix and plant species installed. Metal restraining strips were anchored onto the metal roof to prevent movement of the growing media.



Key factors in the selection of the proprietary growing media included readily available components, water retention properties, low weight (80 kg/m² wet weight) and low heat absorbency. Locally sourced plant species were selected for vigour, hardiness, colour and height.



VersiDrain 25P interlocking trays (left) retain water for re-use via capillary movement and also allow drainage of excess water. Metal restraining strips anchored onto the metal roof prevent movement of the growing media

The Aramsa Garden Spa green roof, with its range of coloured flowering plants, now provides an attractive environment for butterflies and birds. The green roof provides efficient insulation, reduces energy consumption, improves comfort inside the building and eliminates the impact of noise from heavy rainfall.

To view our products online please visit our website:

www.elmich.com.au

or e-mail us at:

australia@elmich.com