Benefits
Buildings and Urban Design

There are a number of benefits that living walls bring to the individual building and to the wider community within the city through urban design.

- Reduced energy consumption
- Increased thermal performance of buildings and reduced costs
- Improved air quality
- Reduced noise pollution
- Improved livability and health
- Inviting pedestrian spaces
- Urban texture and visual amenity
- Urban heat island (UHI) effect reduction
- Greenhouse gases reduction
- Runoff reduction and improved water quality as part of the city WSUD system
- Increased urban biodiversity
- Urban food production

Funded by:

Government of South Australia

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Aspen Developments

Aspen Developments through its clear focus at City Central on “building green” is delighted to be part of the SA Government’s search for innovative ways to further reduce the carbon footprint of commercial office buildings.

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Bird nest on a living wall at Fifth Creek Studio
(Photo sourced from Fifth Creek Studio)
Project Aims

Developing New Hybrid Living Wall System

Hybrid Living Wall Systems

Our analysis of the Adelaide climatic condition and application of living walls to high-rise buildings has shown that the hybrid system provides the best long term solution.

The hybrid green façade systems proposed can be categorised into two types:
- Hybrid system: without integrated maintenance access
- Hybrid system: with integrated maintenance access

Both systems offer the following advantages over conventional multi-storey curtain wall facades:
- Use of low cost “shop front” style floor to floor glazing systems considerably lowering the glazing system cost
- Integrated shading system lowering the performance requirements of façade glazing and spandrel construction
- Creation of a building envelope micro-climate lowering life cycle energy consumption
- Creation of an urban wildlife sanctuary
- Eliminates high solar light and heat reflection from glazed facades absorbing and filtering sunlight
- Reduces the urban heat island effect contributing to lowering summer precinct temperatures
- Reduces reflected heat on adjacent buildings so reduces their cooling loads

Glazing issues

Light penetration Reflectivity - heat - various wavelengths

Existing environmental screens