

PUBLICATION:
DATE:

Civic & Public Building
Winter 2009/2010



Creative Fenestration

Gary Hutton, General Manager at Black Millwork, discusses the key considerations for specifying windows & doors for the varied & sometimes intricate architecture of civic buildings & in particular, why engineered timber can offer a host of structural, aesthetic & environmental benefits.

Civic building architecture is as enthralling as it is broad, encompassing a wide variety of styles, periods and materials. Civic buildings built in historic towns and cities typically follow a traditional and grand style with intricate features and detail, whereas modern structures tend to encompass clean smooth contours with a minimalist approach to decoration. In spite of this, in civic architecture, any design can be built allowing for creative freedom within a community.

Primarily, the architecture should provide a significant visual and physical connection with the surrounding streetscape and a considered relationship with the city's past history. It is also intended to encourage and facilitate the interaction of the general community within the civic and administrative activities of a particular location.

However, due to the age of many civic buildings and cities outgrowing existing ones, it is becoming necessary to renovate or build new buildings that are larger, more aesthetically striking, are energy efficient and that have the capacity to expand with growing populations.

The look and feel of a building, inside and out, is largely determined by the choice of windows. This is one of the easiest and most effective ways to put a unique stamp on a property in terms of character and style, whether this is to blend into the surroundings or to create a statement. Considering this, creative fenestration still has a fundamental role to play in new and refurbished buildings.

Indeed, the specification of fenestration is a complicated task at the best of times, with specifiers having to consider a host of issues ranging from performance, environmental capabilities and whether the style of window design fits in to the building's overall aesthetics.

It is not just the exterior of a structure that ignites reaction from the community, the atmosphere

inside is equally important. The windows form a primary function in allowing natural light to filter through, opening up a room and effortlessly creating more space. The amount of light that is allowed through a window can dramatically affect the mood and well-being of the occupants. Utilising the best in design and innovation can ensure the desired style is reflected from the outside through into the interior.

Large glazed areas can be immensely attractive in helping to make the interior of a building appear even more spacious than it actually is. The size and shape of a room will have an impact on the specific windows specified. Arched windows can define high ceilings whereas ceiling top windows can add symmetry. Many manufacturers offer a structural modular design, which can allow for an infinite number of possibilities for the arrangement and size of windows.

Manufacturers' products will vary in profile size. Many developers recognise that elegant, narrow profiles give a less obtrusive view, allowing for more light and the illusion of a large, seamless outlook. Slim profiles can only be achieved if the structure has the strength to cope with larger spans of glazing. Timber components offer the ability to produce slim frames whilst retaining the natural beauty of wood. Engineered or composite timber material, made from a blend of more than 50% reclaimed pine wood fibre, will provide outstanding strength and rigidity.

Timber windows also boast excellent environmental credentials, crucial to building a sustainable and environmentally friendly community. Specifiers should always check that any timber component is FSC (Forest Stewardship Council) approved. Products carrying the FSC label are independently certified to assure customers that they come from sustainable forest areas.

Once installed, a window should continue to contribute to a building's environmental

performance and the glazing incorporated is particularly important. Specifiers should look for windows supplied with Low-E4™ glass that is highly efficient. Soft coat low E4 argon-filled glass is double glazed and with low emissivity as standard. By incorporating a metallic coating to the inside of the window, radiant heat can also be reflected into the room and UV rays are absorbed into the material that would otherwise fade furniture. U-values as low as 1.4 W/m²K can be achieved. Even hard Low-E glass, used by most manufacturers, can produce U-values of 1.8, allowing expensive glazed areas to be created without compromising the energy efficiency of the building.

Lastly, maintenance also adds to a building's overall carbon emissions and windows manufactured from a protective system offer a real benefit as they never require re-painting or staining.

Timber windows can offer a host of benefits to a building, from the ability to create both contemporary and traditional designs, comprise superb durability, outstanding performance, whilst being sustainable and energy efficient. These benefits are ideally suited to civic architecture where creative freedom is in abundance in designing buildings of many different styles and periods that will enhance the physical aspect of a community for a long time to come.

Enquiry No 132

