

## ***Design Guide for Sunshades***

Solar management is becoming an important consideration on new construction within in the architectural community. The goal is to provide the architect and owner a product that can reduce the “cooling load” with the use from passive solar shading devices. Using extruded aluminum sunshades, while serving to achieve this objective, offers the opportunity to enhance aesthetic appeal and contribute to LEED certification of the building.

### ***SELECT THE ATTITUDE FOR THE ASSEMBLY***

The orientation of the sunshade system to the building; whether, horizontal, inclined or sloped or vertical; has a bearing on the effectiveness of the chosen system.

### ***SELECT THE ALUMINUM BLADE SHAPE/PROFILE AND SIZE***

As the shading infill for the sunshade system, blades are the most critical component. The size, shape and spacing of the blades determine shading, the spacing between the structural outriggers elements and, in doing so, play a larger part in the cost of the system.

### ***CHOOSE A SHAPE FOR OUTRIGGER CONFIGURATION***

The depth, thickness and shape of the outriggers is driven by the projection from the face of the building, the span between structural connections to the building and shape or profile of the leading edge or fascia of the sunshade system.

### ***CHOOSE APPROPRIATE FINISH***

Selection of finish greatly affects the installed cost of the sunshade system. Clear Anodize is the most cost effect finish. To introduce color, a fluoropolymer resin based paint must be used. These are paints typically known as Kynar, Hylar and Duranar and are high end finishes which come in a wide array of colors. These premium finishes are the most costly available for solar control device systems and can vary greatly depending on the color selected

### ***INSIST ON AN ENGINEERED SYSTEM***

All sunshade systems must be designed to withstand all loads without failure in stress and deflection. Live loads, wind loads, ice and snow (ground and drifting) loads must be considered in the design of these structural systems. Requiring that structural calculations, signed and sealed by a registered Professional Engineer, is an essential part of a getting a quality system.