

## Sophia M. Sachs Butterfly House & Education Center Opens in Chesterfield, Missouri



### Midwest's Only Butterfly House Employs Laminated Glass to Sustain Life and Promote Beauty

Located in Chesterfield, Missouri's Faust Park, the Sophia M. Sachs Butterfly House and Education Center is a main attraction in St. Louis and home to more than 60 different species of the world's most beautiful butterflies in free flight. The Butterfly House is a not-for-profit organization established to foster a better understanding of butterflies and insects, and increase awareness of the natural habitat in which butterflies thrive. Visitors are able to see ever-changing displays of the live butterflies, identify butterfly species, discover where butterflies originate, and other interesting facts about the species.

The main attraction and centerpiece of the Butterfly House is the Conservatory Garden, which serves as the home to the butterflies, complete with interior nature trails and lushly planted gardens with exotic, flowering tropical plants. Christner Inc., a St. Louis based architectural firm, designed the Butterfly House's 8,000 square foot floor, five-vaulted glass conservatory. The Conservatory Garden is sheathed in 646 pieces of glass, each measuring 4 ft. by 6 ft. and weighing approximately 200 pounds. Laminated glass made with Saflex was used in the overhead glazing of the building, including the center vault, soaring 36 ft. high at its apex, designed to minimize the obstruction of flight and view.

"The origins of the project were traditional, Victorian greenhouses and exhibition buildings such as the Crystal Palace. Over the course of the design process, however, the shape evolved into something quite contemporary," says Bill Wischmeyer, architect for Christner, Inc. The contemporary, all glass design, including a roofline whose shape resembles a butterfly wing, was created in response to the need for increased light-gathering capabilities.

"It's important for the butterflies and the success of the house to let in as much light as possible, particularly in the winter months when natural light is lacking due to the house's northern location," says Wischmeyer. Additionally, the building was oriented to the south, to maximize the solar collection. The amount of steel used to support the structure was also limited so that shadows cast on the ground are minimized, and plant growth is maintained for



### PROJECT FACTS

#### PROJECT

Sophia M. Sachs Butterfly House & Education Center

#### ARCHITECTURAL FIRM

Christner, Inc.

#### LAMINATOR

Oldcastle Glass

#### SKYLIGHT MANUFACTURER:

Super Sky Products, Inc.

#### GLASS INSTALLER

Super Sky Products, Inc.

#### COMPLETION DATE

July 1998

## project profile (cont.)

the butterflies to thrive.

Wischmeyer was able to accomplish much of his lighting goals through the use of laminated glass made with Saflex protective interlayer. The laminated glass, used in the overhead glazing of the conservatory, allows maximum light to shine through the structure, while blocking out 99 percent of the harmful UV light which can damage fragile plant life.



Laminated glass is commonly used in greenhouses, atriums and butterfly houses to help protect flower color and reproductive development of plantation from the damaging effects of UV radiation. Photoreceptors in plants are still able to absorb sunlight the Saflex interlayer allows to be transmitted. In addition, the superior clarity of laminated glass allows visitors to take in the full beauty of the exhibit.

Incorporating laminated glass into the conservatory's roof protects visitors from flying glass should an unlikely accident occur. Because of its Saflex protective interlayer, the conservatory's roof of laminated glass will prevent the glass from shattering, inhibiting the flight of large shards of glass and, thus, injury to visitors. Ordinary glass windows are fragile and when broken can cause serious injuries - sometimes even fatal. When laminated glass made with Saflex protective interlayer is used in a glazing design, the risk of injury as a result of broken glass is considerably reduced. On impact, the glass itself may crack, but the fragments tend to adhere to the Saflex protective interlayer. By keeping the glass in its place, the Saflex protective interlayer provides added protection from dangerous flying or falling glass fragments.

"The durability and safety of laminated glass were our principle reasons for using it in the conservatory's roof," says Wischmeyer. Laminated glass made with Saflex also allows the structure to meet building codes and safety standards, and has passed the requirements set of all the major model building codes in the United States for sloped and overhead glazings.

The Butterfly House and Education Center also houses a major multi-purpose education room and large exhibition hall. Visitors also enjoy the beauty of the outside Sculptured Garden with its combination of flowers and butterflies, and stone recreations of an enormous Monarch butterfly and 30-foot long caterpillar. "The Butterfly House is not just a fun experience, but also educational," says Wischmeyer.



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