MAJOR INDUSTRIES

SUSTAINABLE DESIGN & LEED®

OVERVIEW AND REFERENCE GUIDE

CREATING ENVIRONMENTS WHERE PEOPLE CAN SHINE™

SUSTAINABLE DESIGN & LEED®

Carver Elementary School, Carver, MA,
HMFH Architects, Inc.
(Image © Ed Wonsek)

DAYLIGHTING MAKES A DIFFERENCE

Optimize energy performance and improve the quality of your indoor environment without sacrificing strength or beauty. Major offers a wide range of daylighting options to fit every design and budget, with the added advantage of possible LEED® credit opportunities. Here are just a few benefits of using Major Industries for your daylighting needs:

- Guardian 275®, LightBasic™ and Clima-Tite™ translucent panel systems provide natural daylighting without glare or "hot-spots" – there's no need for expensive shading accessories
- Translucent systems provide optimization of energy performance and reduced HVAC loads
- Reduced need for "energy-hungry" artificial lighting
- Occupant control of ventilation and line-of-sight vision opportunities when using mixed glazed wall systems that combine translucent panels with fixed or operable glass
- Insulation options for enhanced thermal performance
- Post-consumer and post-industrial recycled content

Incorporating daylighting is an environmentally conscious design solution, and your building's occupants will also gain the immediate benefits of glare-free natural light. Besides added visual appeal, numerous studies show the positive mental and physical effects of daylight on the human body, including improved mood and the ability to focus on tasks more effectively. Natural light can have an effect on the bottom line as well, as studies show that access to daylighting increases productivity in office and manufacturing environments and increases sales in retail settings.

ABOVE (Left to Right):
Aksarben Village - Retail Store Office, Omaha, NE - HDR
Hospital Skylight - Removable
Neurosurgery and Spine Consultants, San Antonio, TX - JMS Architects and Insite Architects

MAJOR INDUSTRIES

Daylighting benefits buildings...

888-759-2678 / www.majorskylights.com

LEED® CREDIT OPPORTUNITIES

GUARDIAN 275®, LIGHTBASIC™ & CLIMA-TITE™
TRANSLUCENT PANEL WALLS, CANOPIES & SKYLIGHTS

SUSTAINABLE SITES

CREDIT 5 | HEAT ISLAND EFFECT (2 pts)

Use roofing materials with a solar reflectance index (SRI) equal to or greater than the values in the table...

Depending on the configuration you choose (sheet color, etc.), Major's translucent systems meet SRI requirements listed in ASTM E1980, ASTM E408 and ASTM E903 to reduce Heat Island Effect.
(Low-sloped roof = or < 2:12 - 82 Initial SRI /
Steep-sloped roof > 2:12 - 39 Initial SRI)

INDOOR ENVIRONMENTAL QUALITY

PREREQUISITE | MINIMUM INDOOR AIR QUALITY (required)

For naturally ventilated spaces, determine the minimum outdoor air opening and space configuration requirements using natural ventilation procedure ASHRAE Standard 62.1-2010 or a local equivalent, whichever is more stringent.

Major's Guardian 275® and Clima-Tite™ translucent panel systems can be configured with operable windows for natural ventilation.

CREDIT 7 | DAYLIGHT (up to 3 points)

Demonstrate through annual computer simulations that spatial daylight autonomy 300/50% (sDA 300/50%) of at least 55%, 75% or 90% is achieved. Use regularly occupied floor area. Healthcare projects should use the perimeter area determined under EQ Credit Quality Views. Points are awarded according to Table 1.

Demonstrate through annual computer simulations that the annual sunlight exposure 1000, 250 (ASE) of no more than 10% is achieved. Use the regularly occupied floor area that is daylight per the sDA 300/ 50% simulations.

Major Industries can assist with daylight simulations to make sure that your design goals are achieved. Contact us for more details.

CREDIT 8 | QUALITY VIEWS (1 point)

Achieve a direct line of sight to the outdoors via vision glazing for 75% of all regularly occupied floor area View glazing in the contributing area must provide a clear image of the exterior, not obstructed by frits, fibers, patterned glazing, or added tints that distort color balance.

Major's Guardian 275® and Clima-Tite™ systems can be configured with fixed or operable glass to allow for views to the outside.

ENERGY & ATMOSPHERE

PREREQUISITE 2 | MINIMUM ENERGY PERFORMANCE (required)

Establish an energy performance target no later than the schematic design phase. The target must be established as kBtu ft /yr (kW m /yr) of the source energy use.

Major's Guardian 275® translucent panel systems with insulation options offer U-factors down to .06, and our Clima-Tite™ systems, with pultruded fiberglass framing, provide enhanced condensation resistance and thermal performance. Our translucent panel systems also offer low solar heat gain coefficients (SGHC), which can lessen HVAC loads and control excessive heat gain.

CREDIT 2 | OPTIMIZE ENERGY PERFORMANCE (up to 18 points)

Demonstrate a percentage improvement in the proposed building performance rating compared to the baseline building performance rating... according to Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2010.

Major's translucent systems provide dependable performance in any environment, combining great U-factor and solar heat gain performance.

OTHER OPPORTUNITIES

MATERIALS & RESOURCES - Recycled Content

Major's daylighting systems contain aluminum, which is a highly recycled and recyclable material. Specific recycled content varies depending upon the system and configurations chosen.

INNOVATION CREDITS

Major's team will work with you on your toughest design challenges to create a custom system that goes beyond "standard" and makes your facility stand out. Contact us and we'll work with you to find an innovative solution for your next project.

Other credits may apply depending upon the system chosen. For more specific recycled content and other information, please contact us at 888-759-2678 or sales@majorskylights.com with additional details about your project.

LEED® CREDIT OPPORTUNITIES

AUBURN® ENGINEERED & E+ SKYLIGHTS & CANOPIES

INDOOR ENVIRONMENTAL QUALITY

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Major's Auburn® systems can be configured with fixed or operable glass to allow for views to the outside.

AT LEFT:
South Dakota Children's Museum ,
Brookings, SD - Architecture Incorporated

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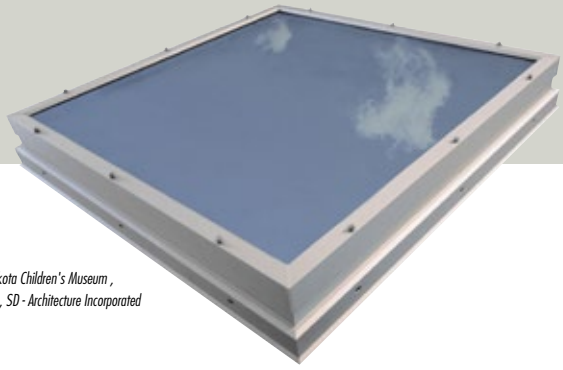

IlluminPC™ WALL SYSTEMS & CANOPIES

INDOOR ENVIRONMENTAL QUALITY

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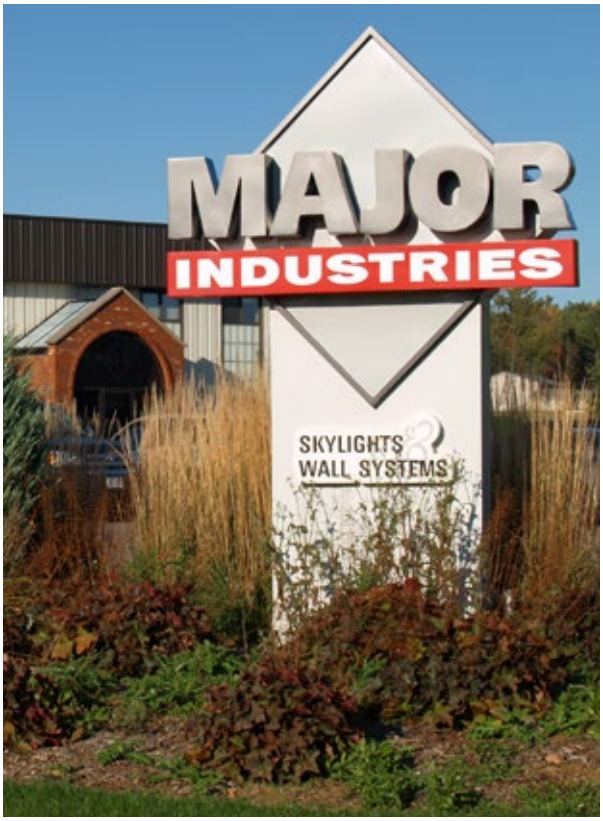
Music Street Residence & Studio, New Orleans, LA – Eley Guild Hardy Architects & Volume Zero (Images ©Richard Sexton)

... as well as occupants and the bottom line.

888-759-2678 / www.majorskylights.com



Moorhead Recreation Center, Aurora, CO
Barker Rinker Seacat (BRS) Architecture

ON THE COVER: CASA Centre Educational Facility, Edmonton, AB - IBI Group
INSET (Left to Right):
Moorhead Recreation Center, Aurora, CO - Barker Rinker Seacat (BRS) Architecture
The Atrium at Anna Maria , Aurora, OH. - Herman Gibans Fodor, Inc.
Davis Brody Bond Aedas – Watha T. Daniel – Shaw Library – Washington D.C

ABOUT MAJOR INDUSTRIES, INC.

At Major, we work hard to design and build the most advanced, longest lasting daylighting systems in the industry. But the benefits of a daylighting system go well beyond recycled content and lifespan. Incorporating daylighting is an environmentally conscious design solution, and your building's occupants will also gain the immediate benefits of glare-free natural light. Besides added visual appeal, numerous studies show the positive mental and physical effects of daylight on the human body, including improved mood and the ability to focus on tasks more effectively. Natural light can have an effect on the bottom line as well, as studies show that access to daylighting increases productivity in office and manufacturing environments and increases sales in retail settings.

As a company based at the "gateway" to the northwoods of Wisconsin, we understand how important it is to care for the environment, and we work hard in conjunction with our suppliers to provide you with the best materials available. We also focus on recycling unused material from the manufacturing process, and use reusable and recyclable materials whenever possible when crating and packaging your shipment.

The methods and materials we use to create our daylighting systems vary depending on the system you choose, but be assured that the aluminum used in our systems features a high pre-and-post consumer recycled content, and can also be recycled at the end of its lifespan. Systems like Clima-Tite™, with pultruded fiberglass framing, can also be recycled in various ways, as can the fiberglass sheet used in our translucent panel systems.

For more information on our full line of daylighting solutions, their benefits, and the numerous configurations you can choose from, visit us online at majorskylights.com or call 888-759-2678.

CONTINUING EDUCATION AIA

Major Industries provides nationwide training to Architects with its certified continuing education programs.

MAJOR INDUSTRIES

SKYLIGHTS, CANOPIES & TRANSLUCENT WALL SYSTEMS
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