

# CGI Windows & Doors LEED CERTIFICATION

The purpose of this document is to assist design professionals in understanding how CGI's products can meet or exceed the requirements of the LEED certification program.  
Additional information of the LEED program is available at [www.usgbc.org](http://www.usgbc.org)

Energy and Atmosphere	Potential Points	LEED Requirement	CGI Solution
EA Prerequisite 2 – Minimum Energy performance. Establish the minimum level of energy efficiency for the proposed building and systems.	2	Demonstrate a percentage improvement in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/IESNA standard 90.1 - 2007 by a whole building project simulation using the Building Performance Rating Method in Appendix G of the Standard.	Meet or exceed many of the current ASHRAE 90.1 – 2007 provisions which assists project in achieving this Energy Performance Criteria.
EA Credit 1: Optimize Energy Performance Achieve energy performance levels above the baseline standard to reduce environmental and economic impact associated with excessive energy use.	1-10	Demonstrate a percentage improvement above the minimum in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/IESNA standard 90.1 -2007 by a whole building project simulation using the Building Performance Rating Method in Appendix G of the Standard.	Solar Heat Gain: Select CGI products with low E coatings that achieve solar heat gain coefficient of SHGC .27 and below.  High Performance Glazing: Combine low-e coating with insulated glass to achieve U-factor below .75.  Low air infiltration rates: CGI products have been lab tested to achieve rates as low as .02CFM @ 6.24 PSF.
Materials and Resources	Potential Points	LEED Requirement	CGI Solution
MR Credit 2.1-2.2: Construction waste management: Divert 50% or 75% from disposal.	2	Divert construction, demolition and land-clearing debris from disposal in landfills and incinerators. Redirect recyclable recovered resources back to the manufacturing process. Redirect reusable materials to appropriate sites	CGI places a 75% to 80% recyclable value to its products for Glass, Aluminum and Packaging.
MR Credit 4.1 and 4.2 Recycled Contents 10%/20% (post consumer and ½ pre-consumer) Increase demand for building products that incorporate recycled content material, thereby reducing impacts resulting from extraction and processing of virgin materials.	2	Use materials with recycled content, such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10%/20% of the total value of the materials in the project.	40% or more of the total material costs come from aluminum extrusions. CGI uses aluminum with high recycled content of 64% (41% pre-consumer and 23% - post consumer).
MR Credit 5.1 Local/regional materials: 10% or 20% Extracted, Processed & Manufactured Regionally. Increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impact resulting from transportation.	2	Use building materials of products that have been extracted, harvested or recovered, as well as manufactured within 500 miles of the project site for a minimum of 10%/20% (based on Cost) of the total materials value. If only a fraction of a product or material is extracted / harvested / recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation	CGI manufactures its products in Miami-Dade, Florida with over 20% of the cost of the product sourced from suppliers located within 500 miles of CGI's factory.



Indoor Environmental Quality	Potential Points	LEED Requirement	CGI Solution
EQ credit 2: Increased Ventilation: Provide additional outdoor air ventilation to improve indoor air quality for improved occupant comfort, well-being and productivity.	1	This prerequisite requires the building to meet a minimum amount of ventilation. This ventilation can be active with mechanical controls or passive with natural ventilation. Both types of ventilation are regulated through the standard ASHRAE 62.1 -2007. Natural ventilation is measured by the square footage of the opening based on the floor area of the space the opening serves.	Operable windows and doors are available from CGI: Single Hung, Horizontal Rolling Windows, Casements, Project-outs/Awning, Swing Doors and Sliding Glass Doors.
EQ Credit 3.1-3.2 Construction IAQ Management Plan: During construction and before occupancy: Reduce indoor air quality problems resulting from the construction/renovation process in order to help sustain the comfort and well-being of construction workers and building occupants.	2	Operable windows with or without temporary exhaust systems are an economical alternative to a HVAC system. (Refer to EQ 5: Indoor Chemical & Pollutant source control and MERV 13 filters).	Use of CGI's operable windows and doors are an economical alternative to a HVAC system during construction.
EQ Credit 4.2: Low-emitting Material: Paints & Coating: Reduce the quantity of indoor air contaminants that are odorous irritating and/or harmful to the comfort and well-being of installers and occupants.	1	VOC emissions from paints and coatings must not exceed the VOC and chemical component limits of Green seal's standard GS-11 requirement.	All CGI windows and doors are assembled prior to site arrival. Factory applied electro static or powder coat paints produce no on-site construction emissions. Paint Finishes meet AAMA 2603-2605 requirements and/or anodized finishes help protect from salt water erosion in coastal applications.
EQ Credit 6.2 Controllability of systems: Provide a thermal comfort system controlled by individual occupants or specific groups in multi-occupant spaces to promote the productivity, comfort and well-being of building occupants.	1	Provide controls for airflow, temperature, and lighting for at least 50% of the occupants in non-perimeter, regularly occupied areas.	CGI operable windows can provide natural ventilation to support the comfort and productivity of the occupants and reduce energy costs.
EQ Credit 8.1 Daylight and Views: Provide for the building occupants a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.	1	Achieve a minimum glazing factor of 2% in a minimum of 75% of all regularly occupied spaces. Provide daylight redirection and/or glare control devices to avoid high contrast situations that could impede visual tasks.	CGI offers a variety of product options with glass tints and low E coatings that limit glare, enhance daylight and provide views through a structure.
EQ Credit 8.2 Daylight and Views: Provide for the building occupants a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.	1	Achieve direct line of sight to vision glazing for building occupants in 90% of all regularly occupied spaces. The glazing must be between 2'6" and 7'6" above finished floor to count as vision glazing.	CGI offers a variety of product options with glass tints and low E coatings that limit glare, enhance daylight and provide views through a structure.

