



## ONTARIO SCHOOL RECEIVES "PROJECT OF THE YEAR" INDUSTRY HONOR

*Radiant Slab Heating and Cooling System Also  
 Assisted in School's LEED® Certification*

LEESBURG, Va., – REHAU, Inc. was awarded with the Plastics Pipe Institute (PPI) Building & Construction Division's Project of the Year at the organization's annual meeting. The award recognizes the company's role in the École Secondaire Jeunes sans Frontiers (Secondary School for Youth Without Frontiers) project in Brampton, Ontario. The school, which has earned the Canadian Green Building Council's LEED® Silver certification, is the first secondary school building in Ontario to have achieved this status.

Designed by Robertson Simmons Architects, the French language high school, which encompasses approximately 91,000 ft<sup>2</sup>, is dedicated to fostering an enriched, student-focused learning experience by providing a healthy and sustainably designed environment. To achieve this, the design includes indoor spaces integrated with outdoor landscapes, a green roof, expansive daylighting, water-conserving plumbing fixtures, lighting with occupancy sensors and displacement ventilation.

To achieve maximum HVAC efficiency, the design includes a REHAU radiant slab heating and cooling system, which circulates heated or chilled fluid through a network of PEX piping installed in the floors throughout the entire facility. The radiant system enables the school to meet indoor environmental criteria related to air quality, noise reduction and occupant

comfort while also maximizing space efficiency by eliminating bulky convectors and ductwork.

"To help the school recognize the benefits of a combined radiant heating and cooling system, we supplied a finite element analysis to model the floor heating and cooling output," explained Mark Euteneier, president of Klimatrol Environmental Systems, the project's designer and supplier. "The results predicted a significant energy savings due to reduced heating and cooling loads and increased efficiencies of the heated and chilled water sources," he said. "Coupled with the comfortable, even method of heating and cooling, this analysis made the REHAU radiant system a must-have for the project."



JSF High School features a REHAU radiant slab heating and cooling system installed throughout the building. Photo © Patrick Kennedy

The system consists of 104,700 ft (32,000 m) of RAUPEX® 5/8-in. O<sub>2</sub> Barrier pipe and 42 PRO-BALANCE® manifolds pre-piped with 3-way valves into recessed manifold distribution cabinets. The PEX pipe was installed at the



ground level in a concrete slab-on-grade design using a counter-flow spiral pattern to promote even surface temperatures.

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To accommodate precast concrete floors on the second level, the pipe was affixed using plastic rails of recycled PVC and covered with a 2 to 3 inch (5 to 8 cm) concrete layer.



The system used nearly 20 miles of RAUPEX® 5/8-in. O<sub>2</sub> Barrier pipe and 42 PRO-BALANCE® manifolds. Photo courtesy Klimatrol

"Project designers, architects and system engineers continue to find that PEX provides lower cost, higher efficiency and longevity," stated Tony Radoszewski, president of PPI.

"The pipe continues to gain in popularity as a product that satisfies the need for long-term performance in demanding applications. It has long been the choice for radiant heating systems. And with this REHAU project, heating and cooling. PEX is being used more and more in commercial systems and we are seeing the overall demand for PEX systems to strongly increase. This PPI Project of the Year is an excellent example of that trend and also demonstrates how a PEX system can help meet LEED goals."

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#### About PPI

The Plastics Pipe Institute Inc. (PPI) is the major trade association representing all segments of the plastic pipe industry and is dedicated to promoting plastics as the material of choice for pipe applications. PPI is the premier technical, engineering and industry knowledge resource publishing data for use in development and design of plastic pipe systems. Additionally, PPI collaborates with industry organizations that set standards for manufacturing practices and installation methods. For additional information, go to: [www.plasticpipe.org](http://www.plasticpipe.org).