## NET ZERO ENERGY GRAND STAIR ONTARIO SCIENCE CENTRE

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TORONTO, ONTARIO - Enclosed in glass, the proposed grand stair accentuates the experience of the valley forest at the Ontario Science Centre, while connecting the two parts of the building -- the upper Great Hall and the lower exhibit halls -- which are separated by a steep ravine. LOH ARCHITECTS Associates | EcoSRG completed a concept feasibility study and zero-energy model for an all-new addition to the iconic building, which was completed in 1969 as an Ontario Centennial project.

Well known to school children and adults alike, the Science Centre has been an educational and tourism destination in Toronto for almost 42 years. Over time, the heavily used escalator connection along the ravine slope has become a safety concern, especially for school groups and younger children. The new vision combines a gentler route with an educational aspect that focuses on natural sciences and advanced zero-energy buildings.

The original buildings were designed in the architectural style of Brutalism, using pure geometric forms in rugged concrete, steel, glass and stone, to express essential functions of the building. The new proposal envisions the grand stair as a glazed passage and galleria, connecting the entrance hall to the main exhibits. As visitors walk along the passage, they may be surrounded by a field of trilliums, see indigenous birds and wildlife, and view sections from a 400-year-old tree and count its growth rings. They will also learn about zero-energy buildings and how the new building actually breathes by drawing air naturally up through the passageway and rising 76 vertical feet over the valley basin.

"The Science Centre is about linking a series of thematic explorations of nature, art and technology and showing the relevance of these to our daily lives," says Joseph Loh, design principal of LOH ARCHITECTS Associates. "The new grand stair through the ravine will help root the Science Centre in its unique location and provide a pleasurable and educational way to connect the exhibit halls."

Established in 2005, LOH ARCHITECTS Associates is an idea-based architectural firm focused on bringing a high level of design to academic, institutional and public multi-use projects. EcoSRG is the non-profit advisory arm of the practice, dedicated to assisting other non-profit organizations on the research and implementation of zero-energy buildings. LOH ARCHITECTS | EcoSRG have eco-projects under construction in Asia and Canada of more than 4 million square feet.

Joseph C. Loh, principal-in-charge of design, established an award-winning reputation through his past roles as head of several large architectural firms before founding his own design firm 6 years ago. He continues to lead design with support from senior principals, directors and associates, including a separate non-profit board and professional industry-advisors on zero-energy buildings. Their work with institutional and commercial clients is direct and interactive, leading to solutions that are often innovative and refreshing.