

# Schwank Case Study: Artscape Wychwood Barns Contribution to first Gold LEED Certification



*“Schwank tube heaters offered the perfect solution to provide comfort, to areas exposed to wind drafts, while meeting the strict energy conservation and green standards of the project”*

Nuno Duarte  
Senior Project Engineer,  
Stantec Consulting Ltd.



## The Facility

In 1921, the Wychwood streetcar repair barns were a major hub of the Toronto Civic Railway, the predecessor of the Toronto Transit Commission. However, over the years, it became derelict.

Toronto Artscape Inc., in partnership with the City of Toronto and The Stantec Consulting Group, transformed the abandoned facility into the Artscape Wychwood Barns: a 60 000 square feet complex incorporating rental housing and studios for artists, a covered street for social gatherings, a green-house, outdoor bake oven, theatre space and offices.

Wychwood Barns is now home to 26 artists and their families, 17 individual artists and 11 non-profit arts and environmental organizations

## The Issue

The creation of affordable space for the arts in the Toronto area, in a way that meets the needs of the present, while contributing to the development of sustainable facilities that will enhance the surrounding community.

Re-use, rather than teardown was the main goal of the project. With that in mind, the design included a ground source heat pump HVAC system supporting high-efficiency mechanical equipment.

However, since a geothermal system distributes and circulates warm air in a similar fashion to mechanical boiler equipment, additional comfort was sought for areas exposed to wind drafts and other spaces that were not used as living quarters.

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## Implementation

Nuno Duarte, the Mechanical Specifier for the project, confirmed that Schwank infrared equipment was selected to heat high ceiling areas and areas exposed to air drafts. As he was familiar with the product advantages from previous projects, he knew that Schwank radiant tube heaters were the perfect solution to provide continuous comfort to areas that were exposed to cold air filtration, while meeting the strict energy conservation and green standards of the project.

Today, eight high-efficiency premier-Schwank radiant tube heaters provide comfort to drafty areas such as the farmers' market barn and the greenhouse.

## Results

An important part of Toronto's industrial heritage was preserved, and affordable space was created for community-based arts, environmental, educational, and recreational groups.

The success of the project, demonstrated that best practices in sustainable design were applicable to the modernization of heritage sites.

Along with Gold LEED certification, the project has received numerous awards, among them the annual SAB Canadian Green Building Awards, offered through SAB Magazine, and the Ontario Association of Architects Award for Design Excellence.

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