

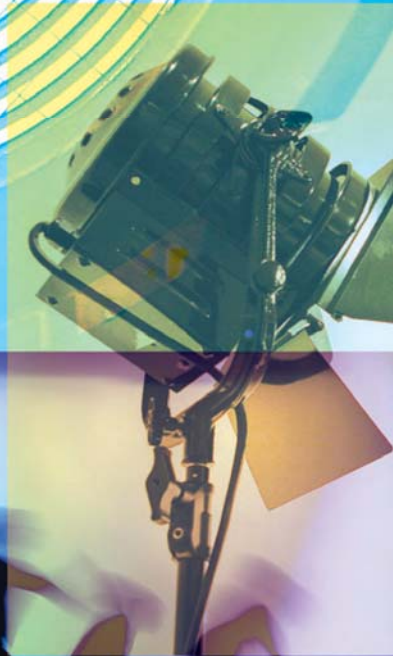
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From its exterior canopy to its lobby and theater house, The Rose Theatre Brampton in Ontario boasts a full cast of customized lighting elements

WELCOME TO THE INNER CIRCLE

BY ROSLYN LOWE



On September 29, 2006, the \$55 million, 880-seat Rose Theatre Brampton opened with a black tie, \$400 per seat gala featuring Diana Krall, Canada's premier jazz vocalist, but a different performer managed to steal the show. The upstaging was pulled off by the true star of the Rose Theatre, the architecture.

"Toronto," according to Martin Knelman of the *Toronto Star*, "likes to see itself as the Paris of the new world." This is due to the influx of glittering new museums and its recently opened Four Seasons Centre, which featured Wagner's epic 16-hour *Ring Cycle*. So who knew that the new performing arts center located in a suburb of Ontario called Brampton, would upstage Wagner and Verdi and the Four Seasons Centre?

Designed by Page & Steele, Inc., one of Canada's oldest and most prestigious architectural firms, the Rose Theatre Brampton, surrounded by a large public square, makes a striking impression. According to Rhomney Forbes-Gray, principal lighting designer, Lightbrigade, Toronto, "The theater, with its vast vaulted windows exposing the interior, has become a beacon in the center of downtown Brampton."

Outside the theater, an entry canopy—a modern variation on a classical marquee—is the first point of contact for visitors. The concept was to create an enclosed canopy with a frosted glass underside. Clear circles radiate across the glass symbolizing the lamps of a marquee. Sandwiched within the canopy are a series of medium-base lamp extrusions lined up perfectly with

Photos: Shai Gill, Insite Photography



Exposed LEDs accentuate the entry canopy. LEDs were selected to reduce electrical load and heat within the canopy, and for their extended life.



In the lobby, custom T5 fluorescent pendants are centered on each window bay. Large T5 fluorescent wall elements are recessed into the stone reveals.

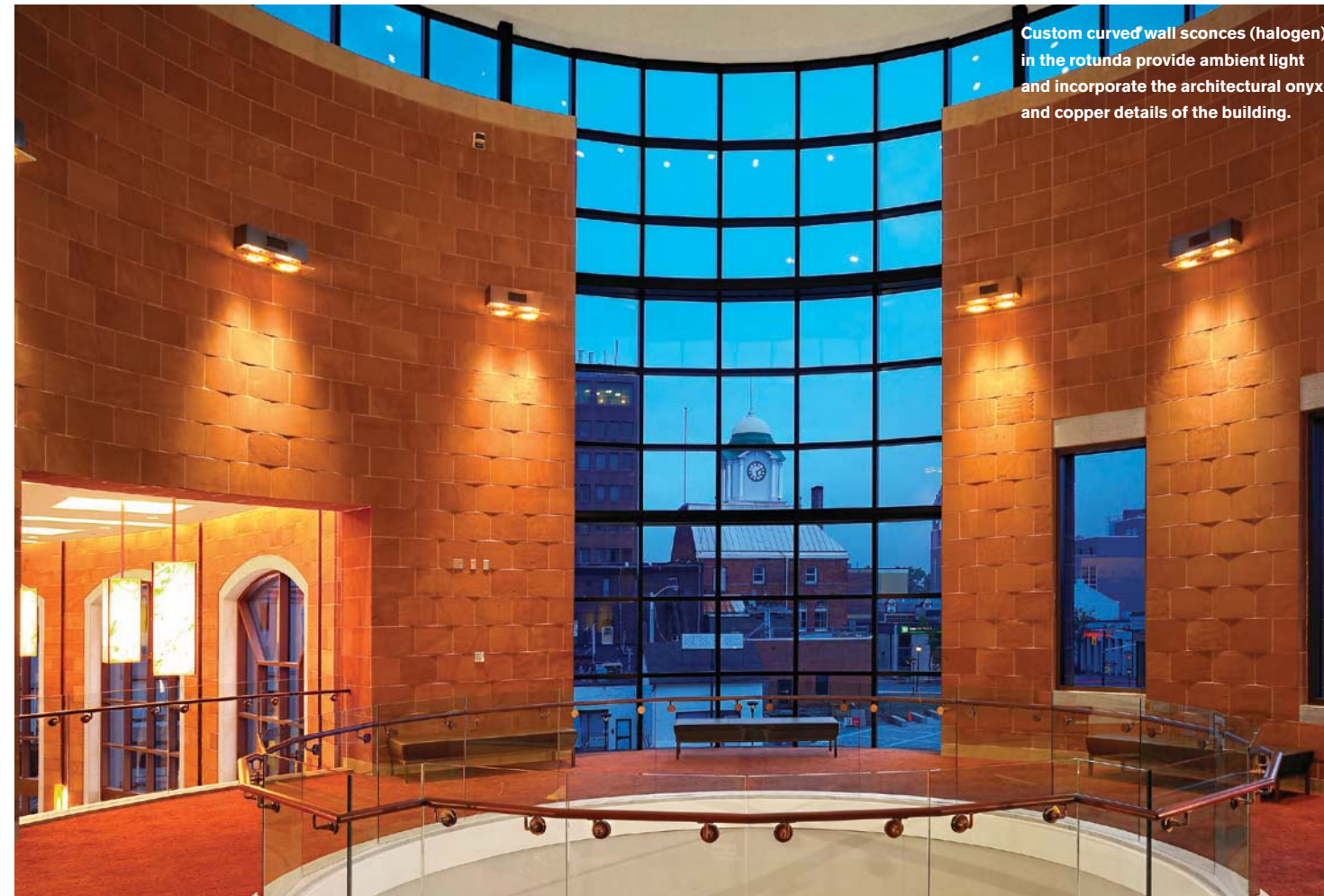
the clear glass circles offering the vibrancy and light levels required of a canopy. LED Par 20 lamps have LEDs exposed rather than hidden behind a lens so that the source can sparkle and accentuate the modernism of the canopy. The technology significantly extends lamp life, while reducing electrical load and heat. At only five watts each, the 252 LEDs have a connected load of 1.2 kW, 7.5 kW less than the halogen counterpart. This translates into a significant reduction in heat trapped within the canopy.

Lighted columns and handrails situated atop a podium in front of

the theater provide safe ambient lighting that doesn't compete with the theater in the background. The lighted columns located on the upper podium are removable if required for exterior and nighttime performances. Extra long banners along one side are lighted with metal halide wall brackets which highlight the graphics.

A WONDERFUL WELCOME

Upon entering the lobby, guests make their way into the rotunda—a multi-story space with Canadian limestone walls and a soaring dome star ceiling. The circular shape of



Custom curved wall sconces (halogen) in the rotunda provide ambient light and incorporate the architectural onyx and copper details of the building.

the rotunda is further defined by curved fluorescent coves in the ceiling lighted with segmented 3000K compact fluorescent lamp channels. To provide ambient lighting for the upper level, PAR 38, HIR, halogen custom curved wall sconces, incorporating the architectural copper and onyx details, are utilized. Acoustic speakers are incorporated into the body of the wall sconces to minimize interruptions on the curved walls. The star ceiling luminaires employ xenon bi-pin lamps for additional lamp life.

Adjacent to the rotunda is the main lobby, where the integration

of the lighting and architectural elements is apparent. Custom T5 fluorescent pendants are centered on each window bay, large T5 fluorescent wall elements are recessed into the stone reveals, and the lighted corner details at the entrances to the house incorporate the onyx and copper found throughout the architectural details. A lone pedestal light anchors the base of the grand stairway leading to the balcony level. Special attention was paid to every detail; all downlights have custom-painted trim rings to exactly match the ceiling. Onyx slabs on the front of the main bar and in

the ceiling are back lit to accentuate the texture and veining. The rhythmic low-voltage downlights accentuate wooden wall panels along the perimeter of the upper lobby. Dimmable fluorescent coves in the upper ceiling help to further enhance the height of the space. The color temperature of all fluorescent lamps is 3000K to maintain a warm incandescent sense.

The architectural elements in the house are intense and vibrant giving the theater an opulent, rich ambience. The task of the lighting was to accentuate and support the architecture. Dimmable halogen PAR 30

HIR incandescent downlights wash the perimeter walls of the theater highlighting the red panels, while dimmed halogen reflectorized luminaires are incorporated into the catwalk system to indirectly light the wood veneer acoustic ceiling panels. Similar luminaires wash the proscenium opening. The wood veneer faces of the balcony are accentuated by a segmented mini reflector system with incandescent lamps that provide a soft glow.

ONLY PERFORMERS ARE ALLOWED TO HUM

One of the primary concerns within the theater was the potential for ballast or transformer hum. Although electronic technology has advanced greatly, significantly reducing the likelihood of hum, the acoustician for the project was not willing to risk the possibility of any noise interference within the house or vomitories and the distances were too great for remote ballasting. As a result, line voltage products were employed throughout the house.

“Contrary to most of our projects, the sources employed within the house are older technologies to ensure that there was no sound contribution from the lighting equipment. No transformers, ballasts or drivers were permitted within the house and vomitories,” says Forbes-Gray.

Within the public spaces, all sources are dimmable. Fluorescent and low-voltage luminaires were specified with electronic ballasts or transformers and tied to the extensive dimming system which controls both the house as well as the public spaces. The



The key challenge in the horse shoe-shaped auditorium was achieving a uniform wash across the wood ceiling panels and the red perimeter walls.

lighting control system is versatile so that it can accommodate the intended multiple use of the space.

The lighting for the patrons is comfortable and glare-free and provides the required IESNA recommended light levels throughout the theater so that every seat is exceptional in terms of illumination.

ALL THAT GLITTERS

Conceptualizing and designing the custom-designed fixtures for

both the Rose's interior and exterior lighting elements was time consuming and not without struggles. According to Forbes-Gray, "there are always the required negotiations involving the architect's vision and the practicality of lighting issues such as source, size, ballast location and access." One challenge involved the use of onyx. "That material was problematic. While it is beautifully rich and renders lighting very uniformly it is heavy

and subject to cracking when cut. We had to ensure as little waste as possible since delivery of the stone from Europe took a long time."

While the budget for the lighting was not unreasonable, it was still a struggle to accommodate all of the custom lighting elements. Modifications were made to several luminaire designs to reduce costs.

In addition, creating illumination that would meet IESNA recommendations was challeng-

ing due to the varying ceiling heights. Luminaire placement and lamps were carefully selected to maintain uniform illumination throughout the entire house.

One specific challenge was the washes across the theater's wooden ceiling panels. The positioning of the acoustic panels continued until long after lighting documents had been completed, so the exact position of the panels could not be determined and calculated.

Once installed, each panel was at a different height and angle to the luminaire location. However, luminaires were adjustable by use of a rotating reflector system extending out from a cavity in the catwalk by means of drawer sliders. Achieving a uniform wash across all of the panels given these varying conditions was a challenge, but careful focusing produced a result that matched the original renderings of the space and Page & Steele's vision.

MAINTENANCE

Maintenance is critical, both inside the theater and out. Since the exterior canopy was constructed of huge panes of glass that were very heavy and had to be sealed against moisture, relamping on a regular basis was not an option. Hence the use of white LEDs to reduce maintenance, load and heat within the canopy.

To address the long-term maintenance of the facility, lamps were standardized to minimize the storage requirements.

While a lift is available for the relamping of all public spaces, the recessed downlighting in the theater house could not be relamped from below due to the excessive height and permanent seating. Instead, the downlighting was located in the underside of the theatrical catwalks. Access for maintenance was made easier by specifying top relamping luminaires using trap doors that cut into the catwalk.

According to Brian Arnott, president and founder of Novita theater consulting firm, "We've taken the

tradition from centuries back and applied all the contemporary code requirements and conditions for exiting, etc., and created a specialness in the auditorium that comes from its unique form and its sense of intimacy." ✎



About the Designers: Rhoney Forbes-Gray, Member IESNA (1988), LC, IALD, principal of Toronto-based Lightbrigade Architectural Lighting, has 18 years experience in architectural lighting. She has an Honors Bachelor of Fine Arts degree in theatrical design and has held a position on her local IESNA Board of Directors for the past 12 years, also serving as the lighting liaison for Toronto's annual IDEX/Neocon tradeshow and conference. She is the recipient of 12 International Illumination Design Awards for her work.



Heather Seniow, Member IESNA (1993), IALD, joined Lightbrigade seven years ago as a senior design consultant. She has served as an officer on her local IESNA section Board of Directors and is the recipient of several IIDA awards.



Brian Arnott, president, founded Novita in 1972, has designed for theater, television and film and has organized and design museum and fine art exhibitions for such institutions as the National Gallery of Canada and the Royal Ontario Museum. Mr. Arnott has been the recipient of Canada Council awards both as a writer and designer. He currently sits on the Board of The Pleiades Theatre in Toronto. He is the incoming President of the Canadian Association of Professional Heritage Consultants.



David Jolliffe, vice president and manager of technical services, joined Novita in 1990 and became a partner in 1997. Mr. Jolliffe is responsible for a wide range of technical systems, including live performing arts facilities, multi-media and presentation theaters, conference and convention facilities, large entertainment centers, and corporate board, meeting and training facilities. Mr. Jolliffe was educated at the University of Guelph.