

Toronto International Film Festival

The Bell Lightbox, a horizontal, 5-storey podium building includes five cinemas, two galleries, two restaurants, a lounge, exhibition space, a gift shop, a film reference library and festival staff office space for 200 TIFF employees. Integrated into the structure, the Festival Tower, a 39,640m², 380-unit condo apartment building, rises above the podium. The Bell Lightbox establishes a cultural image on the streetscape while the 42-storey point tower, set back on John Street, commands the skyline.

The mix of commercial, institutional and residential space required a complex design. The myriad of exposed concrete columns and ceilings, open spaces and large cinemas with cantilevered balconies, combined with a tight construction schedule and the logistical difficulties associated with prime downtown real estate made it quite challenging for all parties involved in the construction.

Architecture and Overall Design

The design of the Bell Lightbox acts as a framework for human action and imagination in which the solidity of architecture and the ephemerality of the medium of film are fused. The flexible plan is based on the tradition of industrial loft buildings. Within this framework, the volumes of the cinema theatres (ranging from 80 to 550 seats) and spaces for gathering, display and production, are arranged to promote movement and visual connectivity.



The design culminates in the monumentally-scaled concrete stepped roof. Inspired by the stepped roof of the Villa Malaparte in Capri featured in Jean Luc Godard's 1963 *Contempt*, this major new outdoor public space encapsulates the fusion of architecture and film and is an ode to the role concrete construction has played in entertainment for over 2000 years dating back to open-air Roman amphitheatres.

Great care was taken to incorporate architecturally finished concrete into exposed columns, ceilings and floors. The restrained colour palette was intended as a reference to the medium of black and white film. This theme is evident



- Owner:** King and John Festival Corporation
- Architect of Record:** Kirkor Architects & Planners
- Design Architect:** Kuwabara Payne Mckenna Blumberg Architects
- Engineer of Record:** Jablonsky, Ast and Partners
- General Contractor:** The Daniels Corporation
- Construction Manager:** PCL Constructors Canada Inc.
- Forming Contractor:** C.I.P. Group
- Material Supplier:** Innocon
- Additional Participants:**
- Aluma Systems Inc.
 - Harris Rebar
 - LIUNA Local 183
 - National Concrete Accessories
 - Toronto International Film Festival
- Project Facts:**
- Located in Toronto, Ontario
 - Completed in 2011
 - Height – 165m
 - 42 above ground storeys
 - 6 underground parking levels
 - 458 suites
 - Total floor space – 55,627m²
 - Residential – 37,495m²
 - Commercial & Institutional – 18,132m²



throughout the structure, and most notably in the three-storey central atrium, where it draws attention to a red framed glass window looking into the cantilevered master control booth.



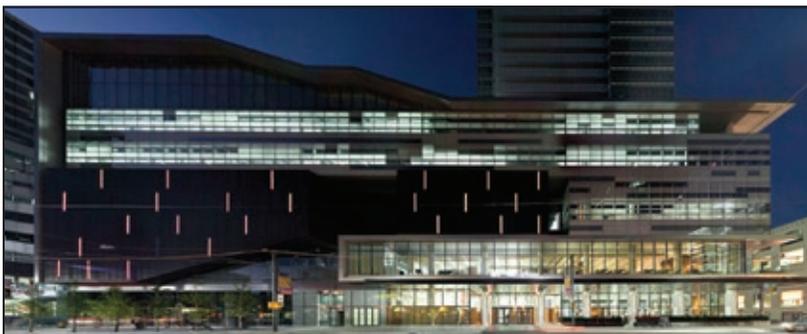
Material Innovation

The complex design, exposed concrete finishes and tight schedule to complete the project in time for the 2010 festival meant all the stops needed to be pulled. A stationary hydraulic concrete pump was used to expedite the forming process and to pour exposed columns. Round columns were formed using plastic-lined sonotube to achieve a flawless finish with no seams or spirals. Self-consolidating concrete (Agilia by Innocon) was pumped from the bottom up through inserts embedded in the concrete slab. This eliminated the possibility of air pockets of any size. The result was pristine columns that needed to be wrapped



and protected for the remainder of construction. For exposed rectangular columns, arborite laminate panels were used to line forms as it provided the smoothest finish possible in mock-up testing.

The open spaces of the cinemas, some of which rise from the 2nd to 4th floor, presented many challenges. Floors and bleachers were formed, and cast-in-place over steel deck. Cantilevered balconies, high exterior walls and high ceilings made formwork extremely difficult. Office areas featured exposed concrete ceilings in addition to exposed concrete columns. Form-ply was placed in a linear pattern for aesthetic purpose.



2012 Ontario Concrete Award Winning Project Mid to High Rise Residential

In 2000, the Ontario Cast-In-Place Concrete Development Council (OCCDC) was formed to aid the owner/developer, architect/engineer and design-build contractor in the decision-making process of choosing the best construction material for the framing system of new cast-in-place structures.

OCCDC promotes the benefits of reinforced concrete as the construction material of choice based upon the following advantages:

- fast-track construction
- costs savings
- structural advantages
- environmental considerations
- local economy benefits

The Members of the OCCDC include (alphabetical order):

- Aluma Systems Inc.
- Carpenters District Council of Ontario
- Concrete Forming Association of Ontario
- Ironworkers District Council of Ontario
- LIUNA—Ontario Provincial District Council
- Ontario Formwork Association
- PERI Formwork Systems Inc.
- Ready Mixed Concrete Association of Ontario
- Reinforcing Steel Institute of Ontario



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