



Canada Science and Technology Museum

The modernization of a National Museum in Ottawa

The Canada Science and Technology Museum is a National Museum located in Ottawa, ON. With a mandate to tell Canada's long and rich history of innovation in science and technology, the Museum collects, preserves and displays artifacts that have shaped the history of the country. Built in 1967, the vision for the \$80.5 million CDN renewal was to create a unique experience for visitors, using the latest advances in digital displays and technology, with a concept to have the building façade become part of these displays creating an iconic entrance to contrast the original box shape building, ushering a new era of the Museum's evolution.

NORR's multi-disciplinary team worked in collaboration with stakeholders, consultants and the constructor, to create the design. Many aspects of the original building and its systems were outdated and beyond their life span, requiring either upgrades or replacements. The existing structure presented its own unique set of challenges, as the building was assembled with multiple additions over several decades. Each addition was constructed using varying structural systems, material grades, and quality standards. Rectifying these underlying differences took innovation in design for architectural, mechanical and electrical systems to create a harmonious structure and an energy-efficient building envelope. The scope extended to a seismic upgrade of the facility and the complete replacement of the roof, that today support photo voltaic panels. The rooftop units were replaced by a boiler chiller plant with fan coil units distributed for localized heating and cooling control. The boiler chiller plant was designed with a glazing wall from the exhibit space, with color-coded piping, to act as a functional exhibit of the Museum's HVAC system.

The result is a modern Museum that features over 80,000 square-feet of exhibition space, including a 9,200 square-foot temporary exhibition hall to accommodate traveling exhibitions from around the world. The space also houses an auditorium, theaters, cafeteria, kitchen, boutique, education center, offices, and workshops. The renewed facility provides visitors with a highly engaging experience featuring innovative digital exhibits, an iconic entrance with an articulated roof complete with digital displays on the walls and ceiling, and a complex structure featuring multi-planar roof and inclined walls that integrate and intertwine with the geometry of the north and west façades.

CLIENT	Canada Science and Technology Museums Corporation
PORTFOLIO	Public Buildings
SIZE	144,865 SF (13,458 SM)
LOCATION	Ottawa, ON, Canada
DATE	January 2017
SERVICES	Architecture MEP Engineering Structural Engineering Interior Design

AWARDS

- 2017 Canadian Institute of Steel Construction (CISC) projects outside of Quebec, le prix national d'excellence batiments - finalist
 - 2018 Ontario Museum Association Award of Excellence in Special Projects
-

[View Online](#)

Public Buildings

Public sector decision-makers look to NORR's experienced team to help navigate the full project cycle from planning to design to execution. Our extensive work in public buildings ranges from government campuses and embassies to cultural buildings and museums.

Valued Partner at All Levels of Government

NORR is a valued partner at all levels of government - federal, state, provincial, county and municipal. Our proven track record in large-scale, heritage conservation, adaptive reuse and renovation projects spans more than forty years. We uphold internal governance practices, employ proven program and project management methodologies and use value-based design from concept to implementation. We have worked on highly secure projects involving confidential documentation and when required, have engaged advisory boards or peer reviews. Every project has a specific strategy based on requirements and vision.

Managing Complexity

Public building design is a Center of Excellence at NORR. Our designated team of architects, engineers, planners and designers have deep knowledge in managing the complexity of purpose-driven design. From current circulation and constraints of an existing spatial environment, to detailed project phasing and staging, to the design of new structures and implementing workplace strategies, our programs will provide the right solution. Our role is to engage our clients and stakeholders to realize the project vision. The result: a design that makes a positive social impact on the communities served.

CONTACT

Jonathan Hughes, Chief Operating Officer
T 416 944 7837
E jonathan.hughes@norr.com
norr.com

