



OTTAWA

NATIONAL CAPITAL REGION

CONSULTING ENGINEERS



OVERVIEW

HH Angus is an employee-owned, independent consulting firm of engineers, technical specialists and project managers. Together, we create innovative solutions for our clients' most complex challenges to expand what is possible for a better future.

100+ Years in Business

250+ Employees

Strong Leadership



91% Staff Satisfaction*

*From 2021 Talent Map Staff Engagement Survey

Designing Sustainability





LOOKING TO THE FUTURE TO DESIGN FOR TODAY

If there's one constant, it's change. Tomorrow's world will be different than today's in a multitude of ways. HH Angus has succeeded for over 100 years because we foster an environment where innovation thrives so we can help our clients anticipate and prepare for today and the future.

Research

Design codes do not always account for new challenges. The research we undertake helps us better understand how to adapt our designs to future challenges such as climate change, changing infrastructure needs and new technology. Some of our current research includes areas such as low carbon energy solutions, smart building solutions and digital twinning.

Innovation Hub

We actively seek ideas from all our people – regardless of location, role or experience – and support promising initiatives. Staff can submit ideas at any time through our online portal and through charrettes held during the year. This approach nurtures innovation and cultivates collaboration with clients and other partners in our industry.

Technology

We constantly evaluate new technologies that can help every client's project achieve its potential. We're exploring exciting technologies such as parametric energy modeling, virtual reality construction coordination, 3D image scanning, digital twinning, new battery storage methods, machine learning, and more.

HH ANGUS FIRSTS
A century of engineering design innovation



CLIENT FOCUS

Our designers and engineers are passionate problem solvers. It's not enough for them to find a good solution to your engineering design challenges; they're focused on finding the right solution – the one that addresses your site, your facility, your budget, and your business goals. They excel at seeing the big picture, and then drilling down to the details of making it work for you.

INNOVATION

Our research and development teams are constantly exploring new ideas and technologies, which we publish to our company Intranet. This gives our entire staff access to the latest techniques and data, to benefit our clients. Sharing this knowledge provides a greater understanding of all available engineering options for new or existing facilities, including impacts on operating and lifecycle costs.

GLOBAL REACH

In today's complex business environment, HH Angus continues to explore and develop tools that enable our organization to deliver robust engineering solutions anywhere in the world. Tools that allow our people to work with our clients and project partners through multiple channels, to intelligently connect in real time to achieve common business goals. These tools allow us to successfully serve clients around the globe.

ACCOUNTABILITY

Each client is assured of a Single Point of Contact overseeing their project. This senior staff member works closely with the Division Director, who serves as Principal in Charge of your project. These two key members of your HH Angus project team ensure that your business needs are clearly understood by the entire project team and that they are effectively met with solutions that deliver value.

EXPERIENCE

At HH Angus, we put our 100+ years of experience and expertise to work engineering solutions for you. As participants in CSA standards committees, we are already setting the framework for facility design of the future. As your consulting engineering partner, we have the right answers to your engineering challenges. Choosing HH Angus' community of design experts enables the best custom solutions.

LOYALTY

We're proud that over 70% of our portfolio comes from repeat clients, some of whom have worked with us for over 70 years. We believe this is the hallmark of HH Angus - to be a trusted advisor to our valued clients, while allowing our creative design team to push the boundaries of innovation and excellence. We're also proud of our stable workforce, who provide our clients with continuity, account expertise and brand equity.



BUILDING INFORMATION MODELING (BIM)

We were early adopters of BIM and are using Revit® MEP, as our primary design tool. HH Angus has the ability to work in the latest version of Revit, BIM 360 and the Autodesk Construction Cloud and is well-versed in the BIM standards and protocols outlined in the AIA Standard, Building Smart and ISO 19650. We carry 200+ licences for mechanical and electrical staff who are trained to design and model building systems in Revit, including HVAC, plumbing, electrical distribution and lighting.

We are also well versed in the Autodesk suite of design products, such as Navisworks, in addition to other relevant third party database and analysis software. For any project, our goal is to identify and deliver on the particular BIM needs of the client's facility. This often involves finding innovative ways to use Revit and other BIM-driven software, along with 3D scanning hardware, techniques and 360° cameras, or creating a customized approach to analyzing, processing and managing data through the Revit API and Dynamo. We have the flexibility to meet your needs at every phase of your project's lifecycle, including scan-to-BIM workflows, digital project delivery and facilities management.

Early adopter of Revit

200+ licences and trained staff

Over 10 years of Revit modeling experience



Toronto Dominion Centre Infrastructure Renewal - Toronto, ON

CLIMATE CHANGE AND SUSTAINABILITY

There is a climate challenge that will require both local and global efforts to overcome. The AEC sector can influence positive change and HH Angus is well positioned to work with designers, contractors and building owners to provide low carbon and energy efficient solutions. The green building industry has transformed the marketplace over the last twenty years and, with over ten million square feet of LEED projects behind us, HH Angus has been a key player in this transformation.

Resilient, durable and energy efficient design solutions are core elements of building systems that:

- are powered, heated and cooled by low carbon sources
- consume less energy (efficiency and conservation)
- have a long life (resource conservation)
- minimize pollution and waste (environmental impact), and
- provide a healthy and productive environment (indoor air quality and comfortably-lit spaces)

At HH Angus, we recognize that there is no one silver bullet that delivers sustainable performance; it requires myriad building systems to work together in an efficient manner. To arrive at an energy efficient and low/no-carbon outcomes, systems to be considered include:

- | | |
|----------------------------|---------------------------------|
| • Alternative Fuel Systems | • Cogeneration |
| • Wind | • Photo Voltaic (solar) |
| • Geo-exchange | • Passive Heat Recovery Systems |
| • Battery Storage | • Water Conservation |
| • Natural Waste Treatment | • Light Harvesting |

We have deep experience designing building systems that meet or exceed industry benchmarks such as:

- | | |
|------------------------|-----------------------------|
| • LEED – NC, EB&OM, CI | • WELL |
| • Net Zero | • Living Building Challenge |



Centre hospitalier de l'Université de Montréal



Rapid 7



National Gallery of Canada



Queen's University



Soave Hydroponics



Fabbrica at TD Centre



GE Brilliant Factory



Forensic Services and Coroner's Complex



HP Computer Centre Expansion



Thunder Bay Courthouse



BMO Field



Finch West Station

SECTORS

- Commercial
- Cultural
- Education
- Energy/Utilities
- Healthcare
- Hospitality/Entertainment
- Industrial
- Institutional/Public
- Lab Research/Facilities
- Long Term Care Facilities
- Mission Critical Facilities
- Sports & Recreation
- Transportation



Mississauga Bus Rapid Transit - Mississauga ON

SERVICES

Mechanical Engineering
Electrical Engineering
Lighting Design
Tenant Improvements
Information and Communication Technology
Digital Strategy and Planning
Smart Buildings
Commissioning
Vertical Transportation
Energy Modeling and Simulation
Sustainability
Building Information Modeling
Digital Services (Reality Capture, Scan-to-BIM and more)
CFD Analysis
P3/Design-Build/IPD
Project Management
Low-carbon Energy Solutions
Feasibility Studies
Compliance
Peer Review

EXPERIENCE IN OTTAWA

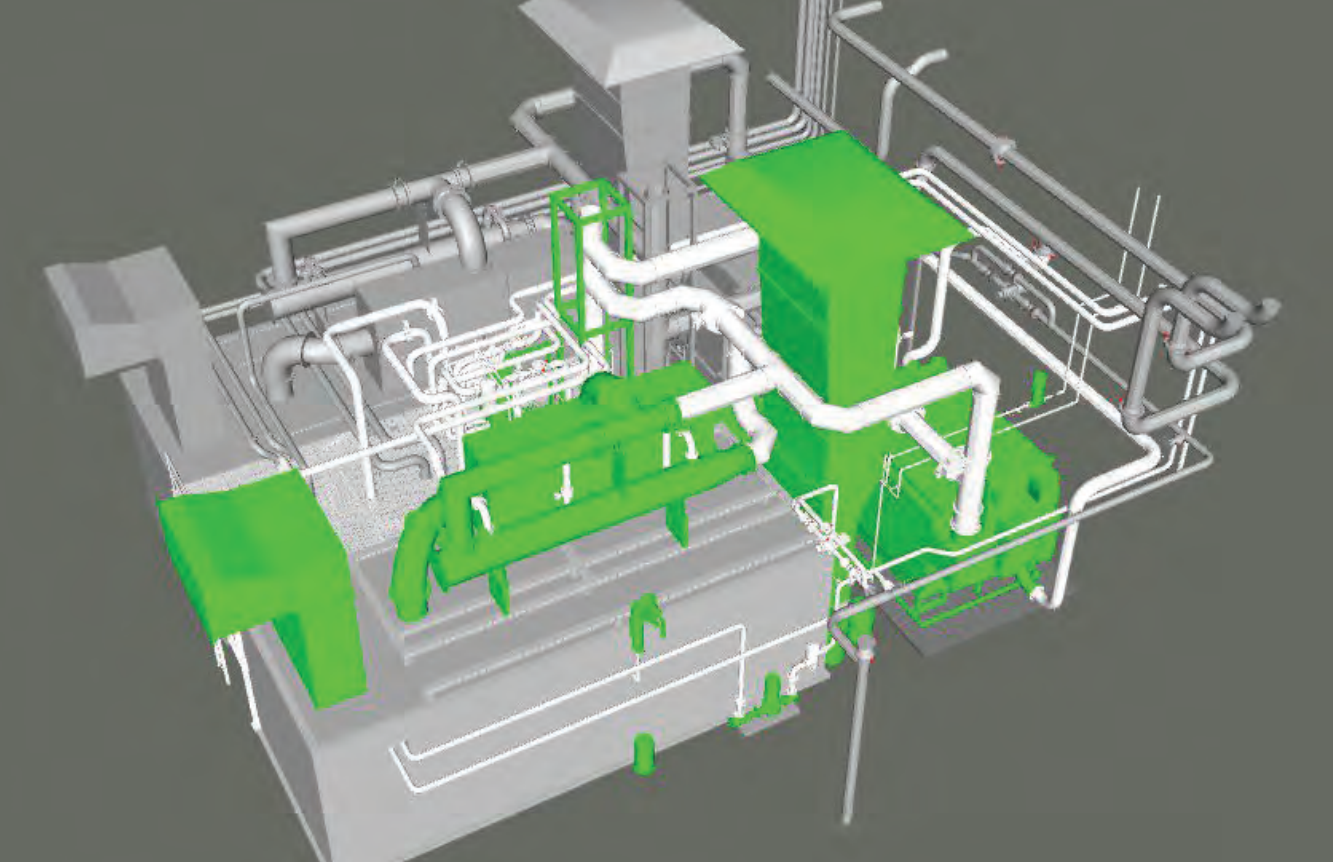


TD Ottawa Boiler Replacement

Client: BGIS

Role: Mechanical & Electrical Engineering

Completion Date: 2020



Algonquin College Trigeneration Plant

Client: Siemens Canada Limited

Role: Prime Consultant
Mechanical & Electrical Engineering

Completion Date: 2017



Rendering courtesy of HOK

Tunney's Pasture Campus Redevelopment

Client: Public Works and Government Services Canada

Role: Conceptual Study & Evaluation of Energy Solutions

Completion Date: 2018



University of Ottawa

Client: University of Ottawa

Role: Mechanical & Electrical Engineers as Vendor of Record

Completion Date: Ongoing



Electrical Upgrade - Canadian Food Inspection Agency

Client: Canadian Food Inspection Agency

Role: Prime Consultant
Electrical Engineering

Completion Date: 2017



Canadian War Museum

Client: Government of Canada

Role: Vertical Transportation Consulting

Completion Date: 2002

Architect: Moriyama and Teshima Architects



National Art Gallery of Canada

Client: Canadian Museum Construction Corp.

Role: Mechanical Engineering
Vertical Transportation Consulting

Completion Date: 1989

Architect: Parkin/Safdie Architects Planners



Sir John A. Macdonald Building

Client: Government of Canada

Role: Vertical Transportation Consulting

Completion Date: 2015



Detailed Engineering Study - Behind the Meter Generation

Client: Carleton University / Honeywell

Role: Mechanical & Electrical Engineering

Completion Date: 2014



The North Pavilion Expansion

The Eye Research Institute

The Ottawa Regional Cancer Centre

Client: The Ottawa Hospital

Role: Mechanical & Electrical Engineering

Completion Date: 1980s - 1990s



Image courtesy of GRC Architects Inc.

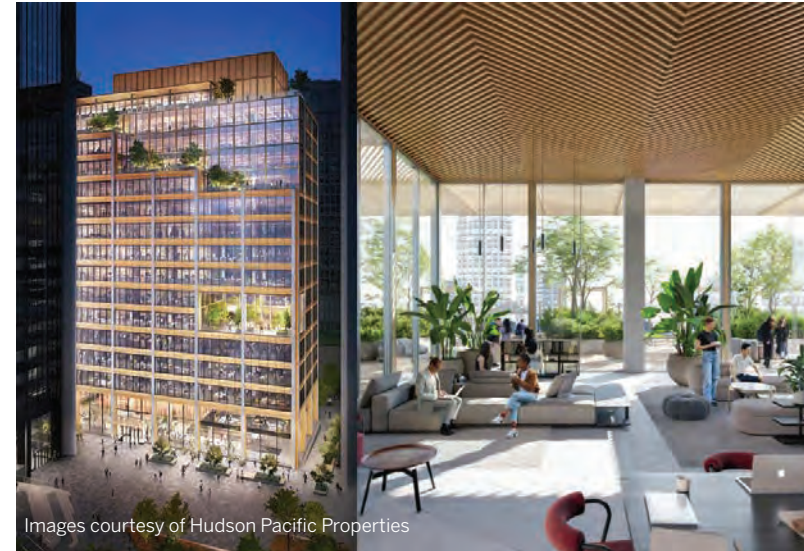
Ottawa Paramedic Service Headquarters

Client: City of Ottawa

Role: Mechanical & Electrical Engineering - planning, design and compliance (PDC) team
Communications Design - planning, design and compliance (PDC) team

Completion Date: 2005

COMMERCIAL



Images courtesy of Hudson Pacific Properties

Burrard Exchange (Bentall Centre, 1025 Dunsmuir) - Vancouver, BC

Client:

Hudson Pacific Properties | Blackstone Real Estate

Role:

Mechanical & Electrical
Energy Modeling
IT/Communications Design

Completion Date:

Ongoing

Architects:

Kohn Pedersen Fox and
Adamson Architects



Toronto Dominion Centre Infrastructure Renewal - Toronto, ON

Client:

Cadillac Fairview

Role:

Mechanical & Electrical

Completion Date:

Ongoing

Architect:

B+H Architects



The Co-operators Canada - Regina SK

Client:
The Co-operators Canada

Role:
Mechanical & Electrical
Audio-Visual Design
Communications Design
ICAT Design

Completion Date:
2020

Project Partners:
HOK, JLL and PCL



AstraZeneca - Toronto, ON

Client:
AstraZeneca

Role:
Mechanical & Electrical
IMIT Design

Completion Date:
2021

Designers:
Ted Moudis Associates and
Turner Construction Canada



TD Bank Group - Project Lego - Toronto, ON

Client:
TD Bank Group

Role:
Mechanical Engineering

Completion Date:
2015

Project Partners:
EllisDon

Designer:
HOK



Teknion - Toronto, ON

Client:
Teknion

Role:
Mechanical & Electrical
Lighting Design

Completion Date:
2016

Designer:
SGH Design

ADDITIONAL COMMERCIAL EXPERIENCE

Scotiabank, Ecosystem Program - Toronto, ON

Mechanical, electrical, audio-visual and communications design services for a 'refresh' of Scotiabank's one million ft2 'refresh' for floors and offices in downtown Toronto

Co-operators, Office Building - Guelph, ON

Mechanical and electrical engineering services for a 250,000 ft2 base building and fitout

The New Oshawa Clinic - West Whitby, ON

Mechanical and electrical engineering services for the 120,000 ft2 offices, clinic space and retail pharmacy

Uber - Toronto, ON

Mechanical and electrical engineering services for Uber's office fitout in downtown Toronto

Holt Renfrew, Head Office Renovation - Toronto, ON

Lighting engineering services for renovations to the headquarters of the iconic Canadian retail fashion brand

Steeles Technology Campus - Toronto, ON

Electrical and communications engineering services for the design and construction of a 2,000,000 ft2 commercial office development which included office space, call centre, network management centre, conference and training centre, fitness facility, dining hall, and various retail spaces

GE, Brilliant Factory - Welland, ON

Mechanical, electrical, security, communications, IT, vertical transportation and lighting engineering services for GE's most advanced state-of-the-art, 450,000 ft2 gas engine plant which was the first of its kind in Canada

INTACT - Toronto, ON

Mechanical, electrical, communications and lighting engineering and design services for a 200,000 ft2 renovation and fitout for INTACT Financial in downtown Toronto

City Hall Renovations - Toronto, ON

Mechanical, electrical, communications, security and audio-visual engineering services for the renovation of Toronto's iconic City Hall

Bay Adelaide Centre, West Elevators - Toronto, ON

Vertical transportation engineering services for this 51-storey, 1,160,000 ft2 commercial high-rise tower

Penguin Random House, Tenant Fitout - Toronto, ON

Mechanical, electrical, communications and lighting engineering services for this office fitout in a downtown commercial high-rise building

Kohler, Signature Store Tenant Fitout - Toronto, ON

Mechanical and electrical engineering services for a signature luxury showroom

TD Centre, Towers 1-3 High Voltage Electrical Distribution Upgrade - Toronto, ON

Prime consultant and electrical engineering services to replace existing transformers at Cadillac Fairview's TD Centre property

Canary Wharf, Canada Square Tower - London, UK

Electrical engineering services for the 50-storey, 1,248,000 ft2 office tower in London's Canary Wharf

HEALTHCARE



Centre hospitalier de l'Université de Montréal (CHUM) - Montréal, QC

Client:
Construction Santé Montréal

Role:
Mechanical & Electrical
Security Design

Completion Date:
Phase 1 - 2017

Architect:
CannonDesign

**2019 Schreyer Award
Winner**



Mount Sinai Hospital - Phase 3 Redevelopment - Toronto, ON

Client:
Mount Sinai Hospital

Role:
Mechanical & Electrical

Completion Date:
2022

Architect:
Stantec



Image courtesy of EllisDon and Kasian Architecture Interior

Royal Inland Hospital New Patient Care Tower - Kamloops, BC

Client:
Interior Health Authority

Role:
Mechanical & Electrical

Completion Date:
2022

Project Partner:
EllisDon and Kasian
Architecture Interior



Kingston General Hospital, Healthcare Infrastructure Renewal Fund Projects - Kingston, ON

Client:
Kingston General Hospital

Role:
Prime Consultant
Mechanical & Electrical

Completion Date:
2016



Image courtesy of EllisDon Infrastructure Healthcare

Bayers Lake Community Outpatient Centre - Halifax, NS

Client:
The Province of Nova Scotia

Role:
Mechanical

Completion Date:
2023

Project Partner:
EllisDon Infrastructure
Healthcare



Peterborough Regional Health Centre Redevelopment - Peterborough, ON

Client:
Peterborough Regional
Health Centre

Role:
Mechanical & Electrical
Telecommunications Design

Completion Date:
2008

Project Partner:
Stantec



David E. Kampe Patient Care Tower - Penticton, BC

Client:
Penticton Regional Hospital

Role:
Mechanical & Electrical
Vertical Transportation
Energy Modeling
ICAT Design

Completion Date:
2019

Project Partner:
EllisDon



Michael Garron Hospital, Patient Care Tower - Toronto, ON

Client:
Michael Garron Hospital | IO

Role:
Mechanical & Electrical, PDC
Vertical Transportation
ICAT/IMIT Design

Completion Date:
2023

Architect:
CannonDesign



St. Michael's Hospital, Barlo MS Centre

Client:
St. Michael's Hospital

Role:
Mechanical & Electrical
Lighting Design
Communications & Security Design

Completion Date:
2021

Architect:
Hariri Pontarini Architects



Garry Hurvitz Brain Sciences Centre - Toronto, ON

Client:
Sunnybrook Health Sciences Centre

Role:
Mechanical & Electrical
Plumbing
Lighting Design
AV, Communications
Condition Assessment
Feasibility Study

Completion Date:
Ongoing

Architect:
HDR

ADDITIONAL HEALTHCARE EXPERIENCE

Rizzardo Health & Wellness Centre - Innisfil, ON

Mechanical, electrical, lighting, IMIT, AV, communications, security engineering services for the 41,000 ft2 community health hub

Lions Gate Hospital, Power Plant - North Vancouver, BC

Mechanical, electrical, IMIT, lighting engineering services for the new underground power plant at Lions Gate Hospital

St. Joseph’s Health Centre, Mental Health Emergency Services Unit - Toronto, ON

Mechanical, electrical, lighting, communications and security engineering services for a complete redevelopment of the existing Mental Health Emergency Services Unit

Holland Bloorview Kids Rehabilitation Hospital - Toronto, ON

Mechanical, electrical, IT, communications and lighting engineering services for the 5-storey, 343,000 ft2 rehabilitation inpatient/outpatient facility

Humber River Regional Hospital - Toronto, ON

Mechanical, electrical and vertical transportation engineering services for redevelopment and amalgamation of three hospitals, including over 150,000 ft2 of expansion and extensive renovations to existing buildings

Sunnybrook Health Sciences Centre - Toronto, ON

Providing mechanical and electrical engineering services to this client since 1945, including driving a program of major expansion and redevelopment to the 2,200,000 ft2 hospital and research campus

St. Joseph's Healthcare, Perioperative Suite and Diagnostic Imaging Expansion - Hamilton, ON

Mechanical and electrical engineering services for the 130,000 ft2 expansion

Royal Victoria Regional Health Centre - Barrie, ON

Mechanical, electrical and lighting engineering services for the hospital's major 300,000 ft2 renovation and expansion

North Bay Regional Health Centre - North Bay, ON

Mechanical, electrical, communications, vertical transportation and lighting engineering services for the 725,000 ft2, 275-bed acute care and mental health facility, one of the first LEED-registered healthcare buildings in Canada

Stronach Regional Health Cancer Centre - Newmarket, ON

Mechanical and electrical engineering services for a new 100,000 ft2 cancer care facility

Family Health Centre - Bradford, ON

Mechanical and electrical engineering services for 11,000 ft2 renovation

William Osler Health Centre - Brampton, ON

Mechanical engineering services for the 620,000 ft2 Inpatient Wing

Cambridge Memorial Hospital Cogeneration - Cambridge, ON

Prime consultant, mechanical and electrical engineering for a 1500 kW containerized outdoor cogeneration facility

Lakeridge Health, Combined Heat and Power - Oshawa, ON

Electrical engineering services to integrate a new indoor 4160 V cogeneration machine into the existing electrical system at Lakeridge Health with the goal of displacing utility electricity

MISSION CRITICAL LABORATORY RESEARCH FACILITIES



Image courtesy of Ericsson

Global Information and Communication Technology (ICT) Center - Montréal, QC

Client:

Ericsson Canada

Role:

Prime Consultant
Mechanical & Electrical

Completion Date:

2016

Architect:

WZMH Architects



Computer Centre Design and Expansion - Markham, ON

Client:

HP Canada

Role:

Prime Consulting
Mechanical & Electrical
Strategic Planning
Commissioning

Completion Date: 2010



Peter Gilgan Centre for Research and Learning - Toronto, ON

Client:
The Hospital for Sick Children

Role:
Mechanical & Electrical
Vertical Transportation
IT communications Design
Lighting Design

Completion Date:
2013

Architect:
Diamond Schmitt Architects



MaRS II Building - Toronto, ON

Client:
Public Health Ontario
Laboratories

Role:
Mechanical & Electrical
Vertical Transportation
Lighting Design
Communications & Security

Completion Date:
2014

Architect:
Diamond Schmitt Architects



Li Ka Shing Knowledge Institute - Toronto, ON

Client:
St. Michael's Hospital

Role:
Mechanical & Electrical

Completion Date:
2011

Architect:
Diamond Schmitt Architects



Forensic Services and Coroner's Complex - Toronto, ON

Client:
Infrastructure Ontario

Role:
Mechanical & Electrical, PDC
Communications Design

Completion Date:
2013

Architect:
WZMH Architects

ADDITIONAL MISSION CRITICAL, LABORATORY & RESEARCH FACILITIES EXPERIENCE

St. Michael's Hospital and Ryerson University, Laboratory Fitout - Toronto, ON

Mechanical, electrical, communications, IT and lighting engineering services for the fitout of shared laboratory space for St. Michael's Hospital and Ryerson University

Toronto Zoo, Wildlife Health Centre - Toronto, ON

Mechanical, electrical and lighting engineering services for a new state-of-the-art animal hospital, laboratory services and research centre

Queen's University, Biomedical Research Facility - Kingston, ON

Mechanical, electrical, security, communications, vertical transportation and lighting engineering services for the renovation of animal vivarium and research facility

Canadian Centre for Inland Waterways Lab - Toronto, ON

Mechanical, electrical, communications, security, IT and audio-visual engineering services for the modernization of the Canadian Centre for Inland Waterways lab facility with the renovation focusing on energy efficiency and climate change improvements

Summerlee Science Complex - Guelph, ON

Mechanical and electrical engineering services for a new 4-storey, 360,000 ft2 (two phase) science complex, including teaching labs, research wet labs, roof-top greenhouse facility and extensive chemical storage area

Reactors Material Testing Laboratory - Kingston, ON

Mechanical and electrical engineering services for a new 8,000 ft2 reactor materials testing laboratory for Queen's University's Nuclear Materials Group

SOC, Operation Centre - Toronto, ON

Prime Consultant, master planning, feasibility planning, mechanical and electrical engineers, controls engineering design, factory witness testing and commissioning for a financial client's 300,000 ft2 computer centre

Citigroup, European Headquarters Computer Centre - London, UK

Electrical and communications engineering services for a 30,000 ft2 server farm/computer centre and 42 floors of communications tech rooms supported by six 1600 kW rotary diesel UPS units for 9.6 MW of back-up power to critical operations

Confidential Client Data Centre Expansion

Mechanical and electrical engineering services for a significant data centre expansion, which included a central cooling plant and emergency generation system, 3,750 ton VFD high pressure centrifugal chiller, three 750 ton induced draft cooling towers, and flexible design for future expansion capacity

Chemical and Physical Sciences Lab Renovation - Mississauga, ON

Mechanical and electrical engineering services for a complex 3,000 ft2 laboratory renovation at the University of Toronto Mississauga campus

McMaster University, CL-3 BioContainment Animal Suite - Hamilton, ON

Mechanical and electrical engineering for a new 1,600 ft2 CI-3 facility

Centralized Intravenous Admixing Facility - Mississauga, ON

Mechanical and electrical engineering services for a Centralized Intravenous Admixing (CIVA) facility for Baxter Canada featuring state-of-the-art clean room technology and monitoring processes

Hydro One, Ontario Grid Control Centre - Barrie, ON

Mechanical and electrical engineering services for the grid operations centre

TELUS Canada, Kamloops Super Internet Data Centre (SIDC) - Kamloops BC

Owner's Representative through Commissioning and Uptime Institute On-site Tier III accreditation audit for the Internet data centre built to LEED Gold standards

EDUCATION



'Smart Campus' Strategy, Planning and Technical Requirements - Edmonton, AB

Client:

Northern Alberta Institute of
Technology (NAIT)

Role:

Stakeholder Engagement
Desktop Studies
Strategy & Roadmap
Development

Completion Date:

Ongoing



Mike and Ophelia Lazaridis Quantum-Nano Centre - Waterloo, ON

Client:

University of Waterloo

Role:

Mechanical & Electrical
Security Design
Communications Design
Vertical Transportation

Completion Date:

2013

Architect:

KPMB Architects



Terrence Donnelly Centre for Cellular and Biomolecular Research - Toronto, ON

Client:
University of Toronto

Role:
Mechanical & Electrical
Vertical Transportation Review
Communications & Security
Design

Completion Date:
2006

Architects:
Behnisch Architekten &
architectsAlliance



Student Welcome and Resource Centre - Toronto, ON

Client:
Humber College

Role:
Mechanical & Electrical, PDC

Completion Date:
2017

Architect:
Barry Bryan Associates
(Compliance Architects)



Image courtesy of Diamond Schmitt Architects

Queen's University, School of Medicine - Kingston, ON

Client:
Queen's University

Role:
Mechanical & Electrical

Completion Date:
2006

Architect:
Diamond Schmitt Architects



Centre for International Governance Innovation - Waterloo, ON

Client:
University of Waterloo and
Wilfrid Laurier University

Role:
Electrical Engineering
Vertical Transportation
Design

Completion Date:
2012

Architect:
KPMB Architects



Leslie L. Dan Faculty of Pharmacy - Toronto, ON

Client:

University of Toronto

Role:

Mechanical & Electrical
Lighting Design
Vertical Transportation

Completion Date: 2006

Architects:

Foster and Partners &
Moffat Kinoshita Architects



Mount Royal University, Conservatory and Performance Hall Facilities - Calgary, AB

Client:

Mount Royal University

Role:

Mechanical & Electrical
Telecommunications &
Security Design

Completion Date:
2015

ADDITIONAL EDUCATION EXPERIENCE

Wilfrid Laurier University, District Energy System Upgrade - Waterloo, ON

Mechanical and electrical engineering services for the campus District Energy System

Queen's University, District Energy System - Kingston, ON

Mechanical and electrical engineering services for the design and implementation of a 15 MW cogeneration facility

Seneca College of Applied Arts and Technology, Garriock Hall Mechanical Retrofit - Toronto, ON

Prime consultant and mechanical engineering services for the retrofit at one of the campus' main academic buildings

York University, Osgoode Professional Development Centre - Toronto, ON

Mechanical, electrical, lighting and security consulting for the 17,000 ft² renovation and fitout

Ryerson University, Student Wellbeing Centre - Toronto, ON

Mechanical, electrical and communications design for redevelopment of the Student Wellbeing Centre. Project will include a major 8-storey addition as well as adaptive reuse of the O'Keefe House heritage building which will undergo renovation and major upgrades to its mechanical and electrical systems

Tyndale University College and Seminary - Toronto, ON

Mechanical, electrical and vertical transportation engineering services for a 370,000 ft² renovation to an existing 1950s structure

University of Toronto, New College Student Residence - Toronto, ON

Mechanical and electrical engineering services for 8-storey, 130,000 ft² student residence with multipurpose activity centre and common rooms

Humber College, Backfill Project D - Toronto, ON

Mechanical, electrical, IT, communications, audio-visual and lighting engineering services for the renovation of an outdated laboratory space into a bright and lively teaching daycare

University of Toronto, Combined Heat and Power Feasibility Study - Toronto, ON

Reviewed heating and power usage of the St. George (downtown) campus to determine the return on investment for three options of natural gas turbines

TRANSPORTATION



Image courtesy of Metrolinx

Eglinton Crosstown Light Rail Transit - Toronto, ON

Client:
Crosslinx Transit Solutions

Sponsor:
Infrastructure Ontario/
Metrolinx

Role:
Mechanical & Electrical
Communications &
Security Design

Completion Date:
2022

Architects:
NORR & IBI Group



TTC York-Spadina Subway Extension, Pioneer Village and Finch West Stations - Toronto, ON

Client:
Toronto Transit Commission

Role:
Mechanical & Electrical

Completion Date:
2017

Architect:
IBI Group



Image courtesy of Strasman Architects Inc.

Waterfront East LRT - Union Station and Queens Quay Link - Toronto, ON

Client:
Toronto Transit Commission

Role:
Mechanical & Electrical
Plumbing Design
Security & Communications
Design
Vertical Transportation

Completion Date:
Ongoing

Architect:
Strasman Architects Inc.



Mississauga Bus Rapid Transit - Mississauga, ON

Client:
City of Mississauga

Role:
Mechanical & Electrical
Vertical Transportation

Completion Date:
2014

Architect:
IBI



Image courtesy of Aecom

Commercial Broadway Station - Vancouver, BC

Client:
Translink

Role:
Lighting Design

Completion Date:
2019

Architect:
AECOM



Image courtesy of Parsons

Oshawa Bus Maintenance Facility - Oshawa, ON

Client:
Durham Region Transit

Role:
Mechanical & Electrical
Security & Communications
Design
Lighting Design

Completion Date:
2016



Bermuda International Airport - Bermuda

Client:
AECON

Sponsor:
Bermuda International Airport

Role:
Mechanical
Vertical Transportation

Completion Date:
2020

Architect:
Scott Associates Architects Inc.



Expanded Air Terminal Building - Toronto, ON

Client:
Billy Bishop Toronto City Airport

Role:
Mechanical & Electrical Engineering

Completion Date:
2011

Architect:
Scott Associates Architects Inc.

ADDITIONAL TRANSPORTATION EXPERIENCE

Union Station Revitalization - Toronto, ON

Vertical transportation design services for overseeing work associated with more than 30 elevators and 20 escalators installed at various stages of construction

Downtown Relief Line South - Toronto, ON

Mechanical and electrical engineering services for 30% schematic design for two key underground stations on the proposed new TTC Downtown Relief Line South

TTC Sheppard Subway Line, Bayview Station - Toronto, ON

Mechanical, electrical, communications for the design and construction of the TTC Bayview subway station

Pearson International Airport, Terminal 1 - Toronto, ON

Vertical transportation and lighting engineering services for all passenger conveyance devices (elevators, escalators and moving walks) in the 2,800,000 ft² facility, as well as lighting in all spaces including the Grand Hall

Canary Wharf, Docklands LRT Station - London, UK

Electrical engineering services for the Dockland LRT station located at the base of the One Canada Square tower in London's Canary Wharf

HOSPITALITY ENTERTAINMENT SPORTS RECREATION CULTURAL



Image courtesy of Chris Dikeakos Architects Inc.

Pickering Casino Resort - Pickering, ON

Client:

Great Canadian Gaming
Corporation

Role:

Electrical Engineering
Lighting Design

Completion Date:

Ongoing

Architects:

Chris Dikeakos Architects
Inc. & Climans Green Liang
Architects Inc.



BMO Field Expansion - Toronto, ON

Client:

Maple Leaf Sports and
Entertainment (MLSE)

Role:

Mechanical & Electrical

Completion Date:

Phase 1 - 2015;
Phase 2 - 2016

Architect:

Gensler



Rogers Centre - Toronto, ON

Client:
Stadium Corporation

Role:
Mechanical & Electrical

Completion Date:
1989

Architect:
NORR



Art Gallery of Ontario Transformation - Toronto, ON

Client: Art Gallery of Ontario

Role: Mechanical
Vertical Transportation

Completion Date: 2007

Architect: Frank O. Gehry



Casino Rama (Chippewas of Rama First Nation), Power Infrastructure Upgrade - Orillia, ON

Client:
Casino Rama

Role:
Prime Consultant
Electrical

Completion Date:
2012

Architect:
WZMH

Image courtesy of WZMH



Mohawk Racetrack - Campbellville, ON

Client: Woodbine Entertainment Group

Role: Mechanical & Electrical

Completion Date: Various projects spanning over 20 years



Wychwood Branch - Toronto, ON

Client:
Toronto Public Library

Role:
Mechanical & Electrical
Lighting Design

Completion Date:
2022

Architect:
Shoalts and Zaback
Architects Ltd.



Innisfil Public Library, Lake Shore Branch - Innisfil, ON

Client:
Town of Innisfil

Role:
Mechanical & Electrical
Lighting Design

Completion Date:
2015

Architect:
Shoalts and Zaback
Architects Ltd.

ADDITIONAL HOSPITALITY, ENTERTAINMENT, SPORTS, RECREATION, CULTURAL EXPERIENCE

Great Blue Heron Casino - Scugog Island, ON

Electrical engineering, lighting, telecommunications and security consulting for the 20,000 ft² expansion of the building to house gaming machines and tables, VIP rooms, bar and lounge, washrooms, offices, kitchen and service spaces

Fabbrica TD - Toronto, ON

Mechanical, electrical and lighting design services for the 4200 ft² retail space

Woodbine Casino Expansion - Toronto, ON

Mechanical and electrical engineering services for major projects at Woodbine since late 1980s

Oliver & Bonacini Restaurants - Toronto, ON

Mechanical, electrical and lighting design services for Canoe, the firm's signature venue on the 54th floor of the TD Bank Tower

Sheraton Centre, Hotel and Conference Centre - Toronto, ON

Lighting design retrofit for the Hotel and Conference Centre

Stratus Restaurant, Toronto Athletic Club - Toronto, ON

Electrical and lighting design services for the restaurant which was honoured with an IES North America Illumination Design Award of Merit, as well as an award from The Society of British Interior Designers in their Restaurant and Bar category

Cover: National Art Gallery of Canada - Ottawa ON

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