



CENTENNIAL COLLEGE

A BLOCK EXPANSION BUILDING

Media Kit

DIALOG®



Canada's first zero-carbon, mass timber higher education building

Located on Centennial College Progress Campus in Scarborough, Ontario, the A Block Expansion Building's design will be a new campus landmark.

This campus gateway building will have the potential to become the first net-zero carbon, mass timber, LEED® Gold higher education facility in the province when it is completed in 2023. It will also embody the College's deep commitment to Truth and Reconciliation.

The new gateway

The design is celebratory, meaningful, and considered. The new building will connect to the existing street edge, completing the corner to yield greater pedestrian connections and enhancing the public realm.

The design narrative is the story of seed, growth, culmination, and balance. It responds to the future success of the A Block expansion through a bold, new gateway that's designed on Indigenous principles, while leveraging the highest sustainability aspirations.

The north and west façades acts as a tool for storytelling, visibly branding the building to represent the aspirations of the institution.



Sustainability

- Mass timber structure will be manufactured locally through sustainably harvested and FSC certified wood
- Efficient mechanical systems, in combination with the highly insulated building envelope will reduce overall energy useage
- Building energy use will be supplemented by renewable photovoltaic panels and Renewable Energy Certificates (RECs)
- Embracing Indigenous approaches to living in harmony with nature
- Access to natural ventilation, daylight, and outdoor views are available for academic and administration areas of the building
- 5% of building energy requirements will be powered by solar photovoltaic renewable energy
- Indigenous plants and vegetation will be used in the landscape to support local ecosystems
- Targeting LEED® Gold certification



Reflecting on reconciliation

One of the most important ideas in this building is its ability to support Truth and Reconciliation. The design was inspired by the Mi'kmaq concept of "Two-Eyed Seeing" – viewing the world through both an Indigenous lens and a Western lens – and by the Anishinabek "Seven Fires" prophecy that provides a path forward for both Western and Indigenous peoples, no longer separate but together – a representation of reconciliation.

This process started with a considered response to the existing topography. Listening to the land, the structure aligns to the cardinal directions. The main entry is at the east, the traditional location for the entrance in Indigenous structures. A grand stair ascends to the west, lined with Indigenous stories, and culminates at the "Wisdom Hall" at the third level. The building materials and forms represent allegorical references: the façade references the transformation of a wigwam in response to seasonal change – a diagonally shaped, transparent curtainwall glazed base that rises from the east to west.





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EllisDon's mass timber specialists eagerly anticipate working closely with Centennial College and our design partners at DIALOG and Smoke Architecture to create this precedent-setting project.

— Geoff Smith
ELLISDON CEO

The future of learning

The building tells an Indigenously inspired story about seed, growth, culmination, and balance that is expressed through the building form and shapes the main public realm of the building.

These principles are further reinforced through the integration of Indigenous artwork and is balanced by the Indigenous Commons that acts as a multi-purpose space at the centre of the building.

These concepts also form a building with highly inclusive, innovative and flexible spaces for classrooms, labs, administration offices, and spaces for student engagement and gatherings.

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Yet as the darkness surrounds me I walked toward the light

— Chief R. Stacey Laforme
LIVING IN THE TALL GRASS





The future of learning

Flexibility

Planning strategies like standardization and modularity were used to allow spaces to be reconfigured creating flexible and adaptable learning environments

Experience

By leveraging their physical assets, Progress Campus will create extraordinary experiences that will amplify Centennial College's brand and also transform it into a place of community and networking for students

Diversity

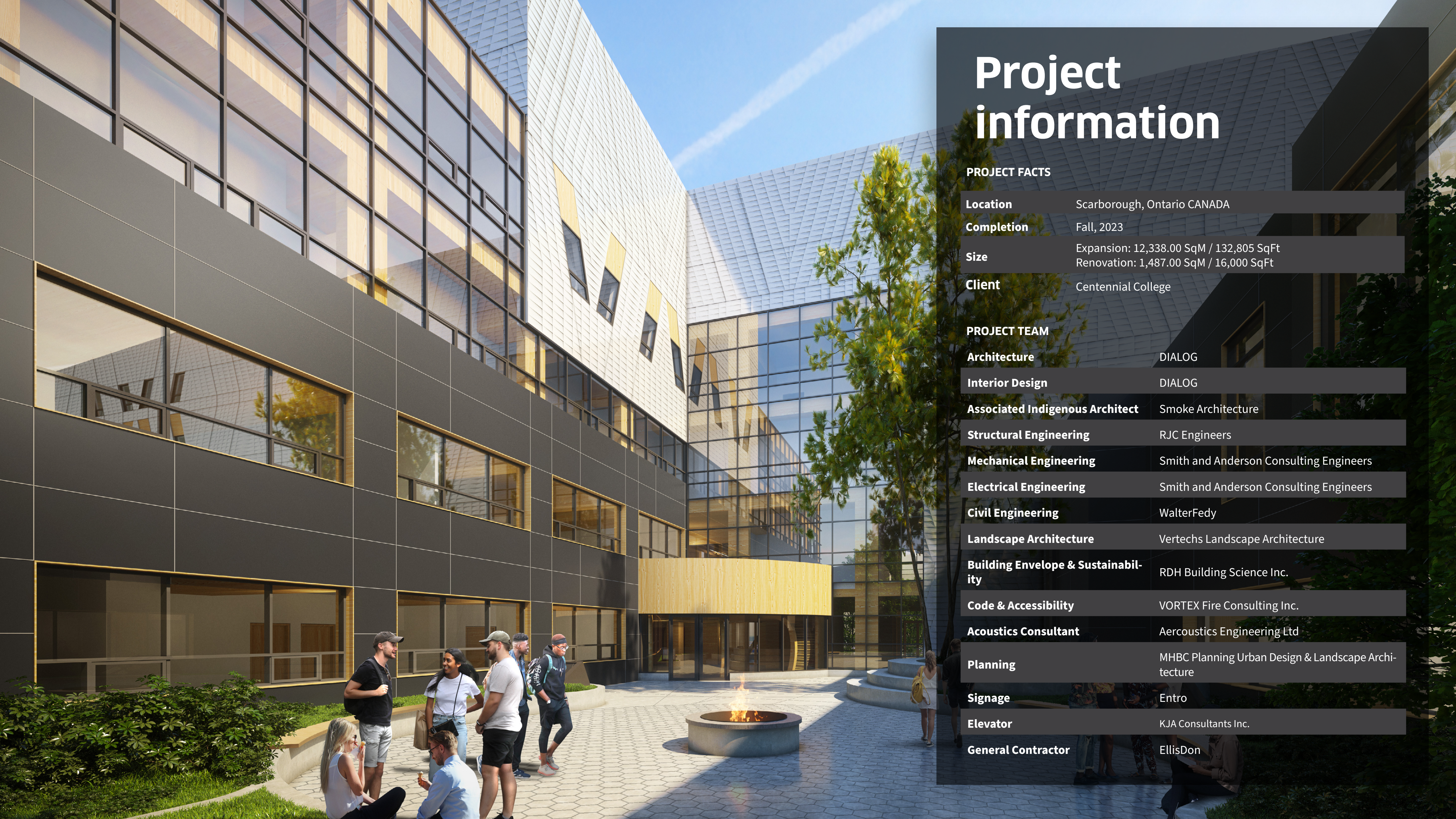
The planning and design of this facility responds to a broad range of cultural and gender needs to create welcoming and inclusive spaces

Accessibility

Creating functional and accessible solutions throughout the building ensures equitable design for all

Sustainability

Centennial College's holistic strategy and approach to sustainability will achieve the vision for a low carbon future and LEED® Gold certification



Project information

PROJECT FACTS

| | |
|------------|---|
| Location | Scarborough, Ontario CANADA |
| Completion | Fall, 2023 |
| Size | Expansion: 12,338.00 SqM / 132,805 SqFt Renovation: 1,487.00 SqM / 16,000 SqFt |
| Client | Centennial College |

PROJECT TEAM

| | |
|------------------------------------|---|
| Architecture | DIALOG |
| Interior Design | DIALOG |
| Associated Indigenous Architect | Smoke Architecture |
| Structural Engineering | RJC Engineers |
| Mechanical Engineering | Smith and Anderson Consulting Engineers |
| Electrical Engineering | Smith and Anderson Consulting Engineers |
| Civil Engineering | WalterFedy |
| Landscape Architecture | Vertechs Landscape Architecture |
| Building Envelope & Sustainability | RDH Building Science Inc. |
| Code & Accessibility | VORTEX Fire Consulting Inc. |
| Acoustics Consultant | Aercoustics Engineering Ltd |
| Planning | MHBC Planning Urban Design & Landscape Architecture |
| Signage | Entro |
| Elevator | KJA Consultants Inc. |
| General Contractor | EllisDon |

An aerial photograph of a modern, multi-story building with a distinctive architectural design. The building features a white facade with a grid of windows and a large, glass-enclosed ground floor. The roof is flat and covered with solar panels. The building is surrounded by trees and a paved area with some parked cars. The lighting suggests it is either early morning or late afternoon, with long shadows and warm tones.

Anticipated building performance

PROJECTED ENERGY AT A GLANCE – TARGETING LEED® GOLD CERTIFICATION

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|--|---|
| Annual Energy Use Intensity (EUI) Site | 104 kWh/m2 |
| Electricity | 1,250,000 kWh/year |
| Annual Source Energy | 2,450,000 kWh/year (per Portfolio Manager for Canada factors) |
| Annual On-site Renewable Energy Exported | 69,000 kWh/year |
| Annual Net Energy Use Intensity | 98 kWh/year |
| Annual Energy Cost (ECI) | \$ 14 / m2/year |
| Savings vs. Standard | 53% LEED Cost Savings 40% Energy Savings vs OBC SB-10 |
| Heating Degree Days (Base 65 F) | 2016 Weather File: 3464 HDD |
| Colling Degree Days (Base 65 F) | 2016 Weather File: 564 CDD |
| Average Operating Hours/Week | High Season (May – Oct): 85 / hours / week Low Season (Nov – Apr): 85 / hours / week 50% reduction in occupancy 35% reduction in plug and lighting utilization |
| Thermal Energy Demand Intensity (TEDI) | 29.4 kWh/m2/year |

Building envelope

ROOF

Roof Type60% Cool roof and 40% Green Roof

Overall R-ValueR-34.6 (ft²-hr-°F) / Btu

WALLS

Overall R-ValueR-20.2 (ft²-hr-°F) / Btu

BASEMENT/FOUNDATIOIN

Under Slab Insulation R-ValueF-0.794

WINDOWS

Effective U-Factor for AssemblyUcog = 0.28 Btu / (ft²-hr-°F)

Solar Heat Gain Co-efficient (SHGC)0.40





Anticipated carbon benefits of using wood

Using a variety of mass timber and wood products in place of traditional building materials will be equivalent to the energy use needed to operate 470 homes for one year and taking 941 cars off the road.

In keeping with our desire to tread lightly on our environment, we sourced the wood materials from an FCS certified sustainable forest in Chibougamau, Quebec. The wood that will be used is 90% black spruce and 10% jack pine and balsam fir.

CARBON SUMMARY

| | |
|---|--------------------------------------|
| Volume of wood products used | 3,600 cubic meters |
| Number of minutes to regrow this volume in North American forests | 10 minutes |
| Amount of carbon stored in wood | 3,209 metric tons of CO ₂ |
| Avoided greenhouse gas emissions | 1,242 metric tons of CO ₂ |
| Projected carbon benefit | 4,451 metric tons of CO ₂ |

About DIALOG

We are passionate about design. We believe it can, and should, meaningfully improve the wellbeing of our communities and the environment we all share.

We've come together because we see the important challenges facing communities becoming increasingly complex and therefore best engaged through the collaboration of diverse perspectives and expertise. DIALOG has been consciously created as a multidisciplinary collaborative to tackle these challenges.

Our multidisciplinary team includes architects, urban planners, interior designers, structural, mechanical and electrical engineers, and landscape architects. We practice across Canada and the US from studios in San Francisco, Vancouver, Calgary, Edmonton, and Toronto. Our work includes designing for urban vibrancy, health and wellness, transportation, education, arts and culture, residential, retail, and commercial, as well as mixed-use solutions which incorporate an increasing number of these.

DIALOG has been designing positive change in communities since 1960. Although our work has attracted many awards over this span, we consider a project truly successful when it is embraced by its end users and its community.



Renderings

To acquire full sized versions of these photos, please reach out to DIALOG's media contact.



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DIALOG®

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