

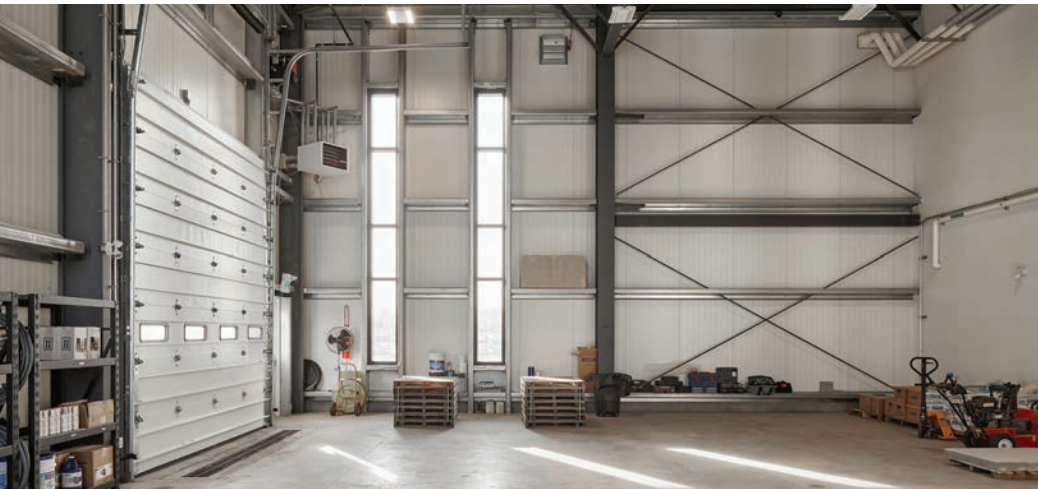


a **NUCOR** company

CASE STUDY

COMMERCIAL OFFICE & WAREHOUSE

TECHO-BLOC





The advantages of pre-engineered metal buildings reign as an attractive option for many commercial projects due to their quick construction times, design flexibility, and energy-efficient aspects. This holds tenure for the gorgeous commercial sales showroom and warehouse designed for Techo-Bloc – provider of hardscaping products located in Ottawa, Ontario.

The Techo-Bloc showroom and warehouse project is carefully crafted using an innovative design approach that brings together functionality and creativity. A neutral-toned color palette, decorative paneling, and parapet wall polish the exterior and allow architectural detailing to beam. Nucor's collaboration with Authorized Builder, A.T. Mariani Construction Ltd., was essential to deliver a stunning and intuitive finished product.

“We chose a pre-engineered structure for this project because our clients were eager to streamline the construction and design process and ultimately occupy the building in the shortest timeframe possible. Nucor Building Systems provided quick erection times while reducing cost and waste,” said Brandon Lawrence, the project architect of S.J. Lawrence Architect Incorporated.

The Techo-Bloc project achieved cutting-edge energy efficiency through several elements, including its building envelope, thermal values, proper M&E systems to reduce energy consumption, and the explicit attention given to airtightness. Its compact design contributed to reduced envelope heat loss. The rest of the site was surfaced with permeable pavers complete with proper bedding course and subbase course, which allows

water to percolate the soil and reduce loads on the existing infrastructure and stormwater management system. The favorable environmental performance of this building is also reached through sustainable design practices, such as the utilization of insulated metal panels and a glass storefront that allows abundant natural light to penetrate the interior space.

A variety of design elements were carefully considered to create this visually appealing and efficient commercial space. Bringing together The Fuller Group of Companies with Tony Mariani, a renowned local builder with international experience, was pivotal in providing the client with a single source solution from concept to finished construction. Authorized Builder, A.T. Mariani Construction Ltd. supplied the building, while the other two companies worked simultaneously on marketing and general contracting.

“From conceptualization to final touches, our team worked to prioritize the needs of our client. We witnessed the vision come to life with our innovative design approach that brings together functionality and creativity,” said Tony Mariani, Principal of Fuller Mariani Building Solutions.



The focal point of Techo-Bloc is its stunning glass and aluminum curtain wall that serves as the centerpiece of the design. Exposed steel beams are becoming increasingly popular in modern designs, and this structure embodies that contemporary vision perfectly. Nucor Building Systems provided three flat beams to create a 4' projection canopy at the striking façade. The canopy has a 9' clear height and is roughly 1' in-depth and thickness.

A mixture of insulated metal roof and wall panels embodies attractive styling and a high-quality appearance. The walls feature a combination of IMP panels and a precast system. The precast panel system extends above the roof line to 29' and slopes down at a 1:12 roof pitch, forming parapets.

Techo-Bloc utilizes a 50' x 80' single slope framing system and features a completely open, partial two-floor mezzanine. The intuitive layout is complete with a dedicated showroom and engaging displays on the ground floor, while the mezzanine provides extra space on the upper level for executive offices and a boardroom. The design allows for multifunctional use of space, accommodating a warehouse area at the back of the building with two vertical lift overhead doors.





a **NUCOR**® company

nucorbuildingsystems.com