



 **LOCATION**
CHICAGO, IL

 **MECHANICAL CONTRACTOR**
CONFIDENTIAL

 **ENGINEERING FIRM**
CONFIDENTIAL

 **REP FIRM**
CONFIDENTIAL



The BlueDuct system was installed underground, allowing conditioned air to be delivered precisely along the glass perimeter through linear floor diffusers—completely hidden from view.

Apple's Chicago flagship store was designed to embody the brand's signature simplicity, transparency, and connection to its surroundings. The goal was to create a retail environment where visitors feel immersed in the outdoors while still enjoying a controlled, comfortable indoor climate. Achieving this balance required an HVAC solution that would be both highly effective and completely unobtrusive.

~ The Challenge

The building's all-glass design, with floor-to-ceiling glazing on every side, created a demanding thermal environment exposed to Chicago's extreme weather conditions. Maintaining comfort near the glass—without drafts, condensation, or temperature swings—was critical. At the same time, any visible mechanical system would compromise the clean, minimalist aesthetic Apple is known for. The challenge was to deliver precise climate control in a way that was essentially invisible.



This installation created a seamless, near-invisible air distribution system that maintains comfort while preserving the building's clean, uninterrupted architectural design.

~ The Solution

The engineering team implemented an underground air distribution system using **The BlueDuct®** to supply conditioned air through linear bar floor diffusers located along the glass perimeter. This system creates a consistent thermal barrier, conditioning the space while preventing discomfort at the building envelope.

By placing the system below grade and integrating the air delivery into the floor, the HVAC solution remains hidden from view. This approach aligns perfectly with Apple's design philosophy—where performance is critical, but never seen.

~ The Result

The finished space achieves a seamless blend of architecture and performance, delivering a comfortable indoor environment that feels open to the outdoors. The invisible HVAC system supports Apple's iconic design while ensuring year-round comfort, proving that high-performance systems can exist without compromising aesthetics.