



WINDOVER
CONSTRUCTION
WHERE TEAMWORK BUILDS RESULTS

Client:
Windover
Construction

Project:
FMUV

Location:
Massachusetts,
USA

Products:
X-TENDA 3600

When **Windover Construction** used cutting-edge technology to expedite truss production and installation on a multi-million-dollar project, **Howick** was part of the action. Testing of prefabrication with mixed reality was completed at the **Autodesk Technology Center in Boston.**

Howick part of state-of-the-art construction project.

In a pioneering move, the United States company engaged a method that combined 3D modeling with prefabrication and augmented reality to speed up truss production and installation. The **Howick X-TENDA 3600 system** was a key player in the project, which was for the construction of a Fuller Mixed-Use Venture Development (FMUV) in Gloucester, Massachusetts.

Windover Construction combined BIM data with the X-TENDA 3600 to digitally prefabricate 935 trusses made from cold-formed steel. This was achieved in 15 hours only. Workers then used augmented reality **Fologram goggles** to assemble the trusses onsite. Windover's novel approach of using cutting-edge mixed reality enabled the

trusses to be assembled in three days – as opposed to seven days had conventional methods been used. The client got to enjoy significant time savings and up to 70 percent in cost savings (that's about US \$90,000). That, plus the highest levels of quality, precision and sustainability.

Software design involved Revit, Dynamo, StrucSoft – while Fologram mixed reality was used to guide assembly on site.

Awarded innovator praises Howick's visionary technology

The FMUV project is a prime example of what can be achieved by using today's technology with tomorrow's vision, says Windover Construction VDC & Technology Vice President Amr Raafat.*

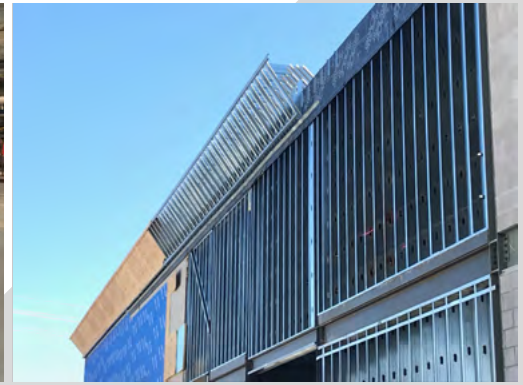
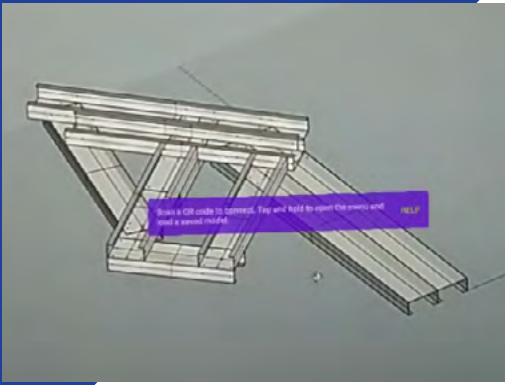
"Combining BIM, Howick automated construction solution and mixed reality transforms the way we build towards a more efficient and safe process," he says.

Windover Construction is committed to building great things with great people, and Howick is part of that picture.

**Amr won a prestigious (Autodesk) Innovator of the Year 2019 award.*

"Combining BIM, Howick automation technology and mixed reality transforms the way we build towards a more efficient and safe process"





Windover Construction and the project

Boston-based Windover Construction is a company with a focus on creating state-of-the-art academic, nonprofit, commercial, modular prefabs and living spaces.

This \$32 million project involved construction of the Cape Ann YMCA (65,000 square feet), Halyard apartment buildings (comprising 200 units), a clubhouse and two retail buildings (totaling 26,000 square feet).

Windover Construction prides itself on being on the leading edge of technology and innovation.

Product

The X-TENDA 3600 is a new telescopic light steel framing system used in this instance to prefabricate truss components. Its true ground-breaking innovation though is its unique capability to produce extendable panels for interior walls and ceilings.

Operating with BIM architecture software the X-TENDA 3600 receives data from our partnered CAD framing software. It then manufactures and labels all components ready for easy assembly.

X-TENDA 3600™ Benefits

The X-TENDA 3600 creates complete frames that can be adjustable in any direction. You get framing that can be pre-assembled, compressed for easy maneuver, then quickly expanded and adjusted onsite, giving you a precise fit every time. It dramatically reduces your installation times.



HOWICK

ABOUT HOWICK LTD

Howick Ltd manufactures precision roll-forming machines and technology for light steel framing.

For over 40 years we've been innovating in this space, creating systems and machines that are now employed by construction businesses in 75 countries the world over. We're proud of the formidable reputation we've built up over that time for performance, reliability and service.

Unique in our sector, Howick steel roll-forming systems are 100% manufactured at our plant in east Auckland, with top quality New Zealand-made componentry either made in at the Howick factory or sourced locally.

FOR MORE INFO OR QUOTES CONTACT

✉ deon@howickltd.com 📞 +64 9 534 5569

