Just finishing its sixth year of operation, this Kitchener, Ontario, mid-sized office building has performed exactly as expected—surpassing ASHRAE 90.1 energy efficiency guidelines by a widely-predicted, yet still thoroughly impressive, 50%. "Just for the record, we haven't had a single seal failure in any of our windows," says Enermodal president and building designer Steven Carpenter. "All have operated just fine." "The one surprise to me," he notes, "is that since we're very close to a multi-lane expressway, I've been very impressed with the windows' sound-proofing. We have operable units, and if you open one, suddenly you realize, 'Oh, I'm beside an expressway.'"

Despite being in Canada, Green on the Grand's window-design challenge was even more aimed at reducing summer air-conditioning needs than meeting winter heat requirements. With 4,000 sq.ft. of glazing comprising 30% of the total building envelope area, "Windows are the most important thing to look at in trying to minimize summer cooling loads," says Carpenter.
TECHNICAL DETAILS OF THE PROJECT

THE CLIENT

Green on the Grand

THE PROJECT

Constructed 1995-1996
Building Size: 22,000 sq.ft.

CONSTRUCTION

Windows: Accurate Dorwin - Winnipeg, Manitoba
Frames: pultruded fiberglass IG: PPG Winnipeg triple pane, tinted Azurlite outer pane
two Sungate 100, Low-e inner panes
argon gas and Super Spacer®
Steve Carpenter Enermodal Engineering - Kitchener, Ontario

DESIGNER

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CONTACT