Edmonton International Airport Hotel
Edmonton, Alberta, Canada

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Business and leisure travellers using Edmonton International Airport will be able to refresh and recharge at the new Renaissance by Marriott hotel. The hotel features a form of construction new to Canada allowing contractors to work through winter without significant delay to the construction schedule.

As part of their 2012 expansion strategy, Edmonton International Airport will host a new eight-storey, 213-room Renaissance by Marriott hotel designed to host business and leisure travellers alike, flying in and out of the country’s fifth busiest airport.

Scheduled for completion by early summer 2013, the hotel will include a restaurant, gym, pool, meeting and banquet facilities as well as a heated pedway to connect to the airport terminal. It is believed that the hotel is the first under the Renaissance brand to be connected to an airport. According to airport management, the new hotel will be a local example of environmental sustainability and energy conservation.

The Challenge
With its harsh winters and below-freezing temperatures, Edmonton-based builders are typically challenged when building a high rise structure. Builders have to battle against freezing materials as well as mounting snow which can normally delay the construction schedule until milder conditions arrive.

The Solution
To combat the weather challenge, the project features a form of construction believed to be new to Canada. Local concrete contractor, P. Kruger Concrete Products Ltd sought to use a Metal Stud Crete wall system, a lightweight precast concrete panel wall system that features steel studs cast into the back. The design of the wall system allowed local Icynene contractor, Penta Protective Coatings, to apply Icynene medium-density spray foam insulation off-site. Upon completion, each of the all-in-one units are shipped out to the jobsite.

This type of construction is useful in the sense that much of the work is done off-site in controlled conditions.

Paul Kruger, P. Kruger Concrete Products Ltd

The design of the lightweight panels allowed builders to install the work of three separate trades in a fraction of the time usually required. Since the panels are prefabricated and insulated off-site, the project schedule is kept on track and the amount of poured concrete used is reduced.

Icynene's MD-C-200 spray foam insulation offers a range of benefits ideal for the Canadian climate. As rigid medium-density spray foam, Icynene MD-C-200 can provide additional wall racking strength and the ability to reject bulk water. As an air barrier and insulation material, MD-C-200 provides thermal comfort year round, regardless of climate and supports improved indoor air quality by blocking air infiltration and mass transfer of moisture that may cause mould, an ideal trait for hotel guests.

There were significant logistics involved. If the panels didn’t get done properly and on time, then everything else would get delayed.

Joe Wedge, Penta Protective Coatings

The Result
Working collaboratively with the team at P. Kruger Concrete Products Ltd, Joe Wedge and the team at Penta Protective Coatings were able to deliver on the project requirements. Penta’s responsiveness and work ethos were highly commended, particularly in helping work to the overall project schedule.

The airport’s management say that the new hotel will be the first in Edmonton to hold ‘Green Leaf’ status for energy conservation, resource conservation, environmental management and pollution prevention.

Sources/Footnotes:
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3. Icynene Inc. would like to thank Icynene contractor, Penta Protective Coatings for their assistance with this document.