



Architectural Cladder

January 2019

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Preparing for CHANGE

I once heard it asked; "Which is greater? The pain of change or the pain of regret?"

We can be a leader in industry but change is necessary if we are to achieve this goal. Navigating this, however, can be difficult. With knowledgeable, skilled, certified workers, we can avoid the pain of regret.

Your Provisional Committee is dedicated to seeing Architectural Cladding become a leader in emerging trades in Canada.

I recognize there are fears, misconceptions, and apathy when faced with change, so here are some questions we have heard throughout our consultations along with some answers that will shed light on the coming changes within your industry.

Q: Will I have to go back to school to still do my trade?

A: The application for the recognition of Architectural Cladder was submitted for

'optional' certification. Those not deemed by their employer as having the skills and knowledge equivalent to that of a certified journeyman will be expected to register as an apprentice in the trade. If you want the official recognition and certification of being an Architectural Cladder, you will have to write and pass the final period exam.

"Which is greater? The pain of change or the pain of regret?"

Q: Will this affect my wage?

A: The short answer is no. In the long term it is possible that there will be a wage difference between the certified and un-certified journeyman.

Q: I've been doing this a long time. What will they be able to teach me in school that I don't already know?

A: Technology is changing the face of all trades rapidly. There are new composites and products being introduced to the industry all the time. Education is essential to keep current

with new and emerging products, install techniques, and best practices. The course outline developed by the Provisional Architectural Cladder [continued on p.2](#)

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Committee has been thoroughly researched and seeks to set a new standard for training.

Q: What benefit will my company get out of training?

A: Having a workforce trained to a standard will give you piece of mind that you have qualified, certified installers for your products. There will no longer be guess work as to level of training or experience as this will be tracked with apprenticeship.

Q: Isn't there training provided in current trade programs?

A: The easy answer is no. Although aspects of Architectural Cladding are taught in 'overlapping' trades, (ie; welding, sheet metal, roofing, ironworking, etc.), no current program teaches ACM panels, IMP's, install techniques, etc. The proposed course outline will teach current trade practices, tools, and products with a hands-on approach. The emphasis will be on total

building envelope and how it relates to architectural components.

In the coming months you will have an opportunity to engage with industry leaders, Government, Alberta Apprenticeship and Industry Training, and your Provisional committee.

Get involved; participate; help be the voice of change.

change

Working at Heights in Winter

SAFETY

Working at heights is a necessary and regular part of the job. The weather, however, is not always so cooperative. I remember the first time I had to work off a manlift in Fort McMurray in January; it was cold enough on the ground, but at 85 feet in the air it was downright miserable. I was handling metal panels that felt like ice cubes through my gloves. The wind seemed to be coming from multiple directions. I soon realized that I was unprepared for the harsh environment, yet other coworkers were able to perform their duties with no complaints. How were they able to function when I couldn't even feel my toes? Here are some of the lessons I learned from the more experienced workers over the course of that season.

Plan to be cold. This meant putting on extra layers before I left for work. I always brought an extra pair of socks and toque just in case. Hard hat liners, extra pair of gloves (liners), and hand warmers were a must. Keeping your body warm and comfortable is half the battle.



"Efficiency in cold weather is everything"

Once I learned how to work with the conditions, the job didn't seem so harsh and the days went quicker.

Plan your work before you start. Do as much prep on the ground as you can. Make sure you have all the tools and supplies required so you don't have to make multiple trips. Efficiency in cold weather is everything.

Check your windspeeds. Remember windspeeds can double at 60 feet.

Talk with nearby crane operators who have anemometers (measures windspeed) positioned at different points on their booms. In a pinch you can check with on-site weather stations, or ask your safety to borrow a hand-held anemometer. Cranes will always give the most accurate readings. On that note, resist the urge to modify your workspace. Often times workers like to put up plywood, metal sheets, or tarps to cut the wind. This can cause a sail like affect resulting in scaffolds or lifts tipping over.

Monitor changing weather conditions. Snow, freezing rain, and increased wind speeds will alter working surfaces. One slip is all it takes to alter a career. Watch footing, paths of travel and use good housekeeping techniques.

This list is not exhaustive, but is a good start in your cold weather preparations. *Once I learned how to work with the conditions, the job didn't seem so harsh and the days went quicker.*

Work safe. Stay warm. There is always someone counting on you to come home.

SAFETY

INNOVATIONS: Envelope First

The Following is an excerpt from the White Paper:

"ENVELOPE-FIRST" APPROACH TO NET-ZERO ENERGY BUILDINGS

by

Roger Hedrick, LEED AP®

Director of Technical Resources

Architectural Energy Corporation

Prepared for Kingspan Industries

October 21, 2010

"...insulated metal panel wall and roof construction achieved significant energy savings."

To view the White Paper in its entirety, go to:

Kingspan.com under downloads/white papers

Education is the cornerstone to any trade. One of the fundamental principles to Architectural Cladding is *building envelope*.

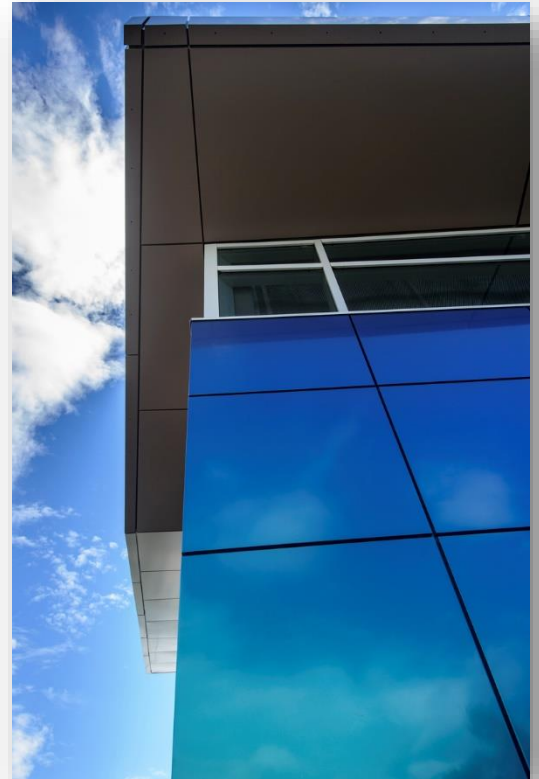
"building envelope" means the physical separation between conditioned and unconditioned environment of a building including the resistance to air, water, heat, light, and noise transfer.

To better understand how exterior panel systems impact the *building envelope*, here is an excerpt from a white paper written and developed for Kingspan.

"Energy consumption by buildings accounts for 39% of the energy consumed in the United States (EIA 2010). With current concerns over global warming and the associated impacts of energy consumption, energy efficiency has become dramatically more important as a design goal in buildings. Leadership in Energy and Environmental Design (LEED) certification is providing a marketing benefit to energy efficient, sustainable designs. Possible future imposition of carbon taxes on energy consumption, and otherwise increasing energy costs are making the economics of energy efficient buildings increasingly favorable."

*"A simulation analysis was performed to evaluate the energy efficiency impact of constructing typical buildings with high performance insulated metal panel wall and roof systems, and the additional steps necessary to achieve net-zero energy buildings. Three buildings, school, office and warehouse, were simulated in four locations. Baseline buildings for each location, which are compliant with ASHRAE Standard 90.1-2004 and 90.1-2007, were developed. Then the envelope was improved with the insulated metal panel wall and roof systems. Typical energy conservation measures, which varied by building type, were then applied, and finally photovoltaic arrays were sized to achieve energy savings of 30%, 50%, 70% and 100% over the baseline buildings. **The results showed that the increased insulation and reduced air leakage of the high-performance, insulated metal panel wall and roof construction achieved significant energy savings.** This was particularly true for the school building, the configuration of which resulted in a large surface to volume ratio. Energy savings for the insulated metal panel construction alone were as high as 22%. For the office and warehouse, which had much lower surface to volume ratios and higher internal loads, the energy savings were lower, but still ranged up to 7% and 19%, respectively. Energy savings when additional energy conservation measures are applied ranged up to 55% for the school, 20% for the office and 28% for the warehouse. PV array sizing, in terms of both kW capacity and collector array area, as necessary to meet the various savings targets are identified."*

"...This paper will describe the application of an insulated panel construction system to three buildings in four climates. The insulated panel system provides high levels of wall and roof insulation, and reduced air leakage. Additional energy conservation measures (ECMs) are then applied to achieve a highly efficient building design. Finally, PV systems are applied to achieve net-zero buildings."



Coming soon....

coming soon

The provisional committee has been tasked with populating a registry containing contact information of persons from the architectural cladder industry in Alberta. This registry will be managed by Apprenticeship and Industry Training (AIT) and will be used solely to survey the architectural cladder industry's support for the application to designate architectural cladder as an optional certification trade and its support for the draft training and certification requirements, as developed by your provisional committee. **Over the next few months, your provisional committee will be asking for your participation to ensure as many employers and employees from Alberta's Architectural Cladder industry register themselves to be surveyed.** Our initial application for designation identified approximately 1500 person directly working in the architectural cladder industry in Alberta. We will be sending out further information on the registry and the survey as soon as it is made available by AIT. We are excited that we are in the home stretch, but we need your support and participation.

Stay tuned....

COMMITTEE and CORRESPONDENCE

Your Provisional Apprenticeship Committee is made of 4 employer representatives; 4 employee representatives; 1 presiding officer; and a manager/recording secretary. The committee meets on the second Tuesday of every month, with the exceptions of July and August. The purpose of the provisional committee is to engage industry and draft the training and certification requirements that reflect current industry practices in Alberta. This information, along with the application to designate, can then proceed for industry's review before government's final review.

YOUR PROVISIONAL COMMITTEE

Jason Wright – Presiding Officer	SMWIA Local 8
Derrill Ayotte – Alternate Presiding Officer	Clark Builders
Rod Wispinski – AIT Manager/Recording Secretary	AIT
Barry Clark	Imark Architectural Metals
Don Roberts	NWS Construction
John Weran	Almac Metal Industries
Jeff Helm	Clark Builders
Joe Schock	Flynn Canada Ltd.
Daniel Bujold	STM Erectors Inc.
Lorne Doiron	Thermal Systems KWC Ltd.

committee



The committee would like to thank the following organizations for their support.

