

Replacement Window and Door Installation Task Group

With the aging housing stock in British Columbia and the increasing demand for energy efficient homes, replacing inefficient windows and doors is one renovation item that can give you the best "bang for your buck". When improperly installed, these products can compromise the building envelope and fail to deliver expected the energy efficiency, possibly even creating a worse situation than you started with.

This is why the quality of replacement window and door installation is becoming an increasing concern. Following our October 2009 technical meeting that featured a panel discussion on replacement window installation, a straw poll of those present indicated that the great majority felt strongly our industry should address the issue. This led to the creation of the Replacement Window and Door Installation Task Group that will work towards the creation of a Best Practices Guide for replacement window and door installation in British Columbia.

While considerable resources have been devoted to the installation of windows and doors in new construction in the past few years, there is a noticeable lack of information with regards to window and door replacement. This is creating future liability for the replacement window and door industry as some installation methods currently in use may not be suitable for the unique climate conditions in British Columbia.

The initial and ongoing work of the Task Group has been to review and document existing replacement window and door installation practices, ensuring that all methods currently being utilized are captured. Once the methods are documented, the group will categorize them for use in the appropriate exposure condition, either high exposure, moderate exposure or low exposure.

It was felt that an important part of a window or door installation was to ensure the proper method is used based on the environmental load for that particular window or door.

Determining this load is dependent on three factors:

- Climate, which references the moisture index in the BC Building Code.
- Local Terrain, which covers the site specific details for the building.
- Overhang Ratio, which is the amount of protection provided by the window overhangs.

By taking these three factors into account, an exposure factor may be determined which will dictate the appropriate method of installation for a particular exposure condition.

The Best Practices Guide will help users to select the appropriate product type and installation method for different exposure conditions, with sections on the various exterior siding materials. There will be detail drawings for the each method covering mechanical connections, subsill details, drainage, air barrier continuity, perimeter insulation and environmental loads. It will also cover sealants and the ensuing maintenance required and will provide energy conservation information.

The Best Practice guide will also lead to the development of marketing materials to help consumers understand what installation methods are appropriate for their home, and to help them understand the risk they are taking if they knowingly choose an inappropriate installation method.

This project has attracted interest from several organizations willing to share the cost of its development with the WDMA-BC, including HPO, CMHC, BC Hydro and the City of Vancouver. To date, there is a commitment of some \$60,000 from these organizations with the possibility of more to come.