

New Hornby Island Firehall

Community Update, July 2017



The purpose of this update is to provide the community with information regarding a challenge that was identified with the new Hornby Island Fire Hall project, and to share how this challenge will be resolved.

The History

In January 2016 the Comox Valley Regional District (CVRD) went to tender for the Hornby Island Fire Hall Renewal project and all bids came in over budget, resulting in the CVRD and the architect asking the lowest bidder to come back with a list of potential cost savings. Through four rounds of cost savings discussions with the bidder, design team and the user group, a final design and cost was agreed to.

One of the main items on the cost-saving list was moving from prefabricated Passive House panels for the apparatus bays, to stick-framed built on-site walls. Passive House panels are

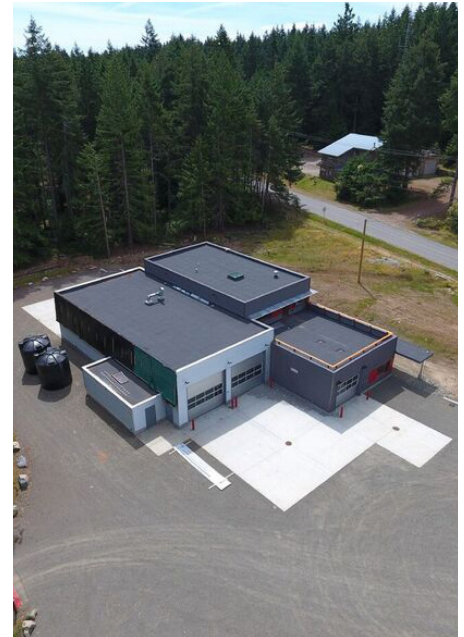
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an effective way to lower the operating energy cost and moving to stick-frame for the apparatus bays showed a potential cost saving of \$17,000. The CVRD and the design team agreed with this change as long as the stick-framed and built on-site walls were built to the same standard and specifications of the Passive House panels.

During construction, the architect confirmed with the contractor that all joints and openings needed to be sealed and taped as per the drawing specifications and the original tender documents.

The contractor constructed the apparatus bay walls during a very wet time of the year. It was noticed that the building materials for the walls were not protected from the rain and had absorbed a significant amount of moisture. The prime consultant confirmed with the supplier that the Passive House sheathing product would hold up to wet conditions as long as it was not exposed for an extended period of time.

Once construction was completed, the prefabricated Passive House panels of the fire hall were inspected and found to be dry. However, once heaters were operated in the apparatus bays, it was observed that water was condensing on the interior of the stick-framed built on-site exterior walls.



It was confirmed by the contractor and prime consultant that the water was not a leak from the roof. Follow-up investigation by the prime consultant during a site visit with the contractor confirmed moisture within the walls of the apparatus bays.

Further inspection and review found that there was no taping at the sheathing joints to ensure air tightness as per the specifications. It was also found that plywood was used in some locations of the wall and not the specified oriented strand board.

How We Are Resolving the Matter

Two options were identified to repair the matter:

- tear everything out and rebuild as per the contract documents, or
- engage an independent third party building envelope consultant to provide recommendations that would allow the existing wall to perform as intended, and would not entail tearing the wall down and starting from scratch.

The prime consultant and the contractor jointly engaged the services of RDH, a firm specializing in Passive House building envelope design. RDH identified the primary reason for the condensation was the presence of latent construction moisture. The consultants and contractor have worked together to develop remediation strategies and confirmed the work is to be performed under the original general contract. A revised scope of work was developed for these strategies based on the recommendations of RDH and include a system for monitoring the moisture within the wall over time to ensure that the problem has been fully addressed with no effects on the long term performance of the building.

The remediation measures include:

- Remove cladding, sheathing, insulation and membrane and allow the wall to dry out
- Clean and treat all fungal growth
- Dispose of sheathing and insulation with staining of fungal growth
- Correct air barrier gaps
- Provide air barrier control at wall junctions and ledger
- Inspection and moisture content measurements
- Install moisture measuring device to monitor moisture content over time
- Re-install insulation and exterior wall sheathing as per design
- Re-install cladding as per design
- Photos to be submitted to the architect for approval, at each stage and prior to proceeding to the next stage

For updates on completion of this work, please be sure to check the project page at www.comoxvalleyrd.ca/hornbyislandfirehall and be sure to stay tuned for Hornby Island Fire Rescue to announce when the fire hall will be fully operational.

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Message from Fire Chief Doug Chinnery, Hornby Island Fire Rescue

When I look at the results of what we have worked so hard for I am astounded at the quality of building that we got for the price. There have been challenges but I'm convinced that the remediation plan is solid. It gives me even more confidence knowing that it came from a team-based approach to problem solving and that all parties have agreed to the proper solution.



Despite some frustrating delays we remain excited about the prospect of operating out of the new building and trust that the last of the impediments holding us back will soon be solved. I can't wait to open the doors of this beautiful new community building and welcome everyone to see what we, as a team, have accomplished.

Message from Jim Garton, Chair, Hornby Island Fire Hall Renewal Project Select Committee

Good things take time. Very good things sometimes take a little longer.

The new fire hall for Hornby is about ready to open. I have had a preview and it is exciting. The new tanker truck will arrive before long and work will then begin on qualifying for superior shuttle which is a way of improving fire service and reducing fire insurance costs.



The summer rush has complicated resolving the nagging outstanding issues impacting the opening and this has led to great frustration by everyone. But, they are getting resolved! The day we are waiting for is within our collective grasp. Truly an exciting time in the history of Hornby Island.

