

Innovation Building Group Best Practices for Modern Methods of Construction



12. Lessons From Delivering Housing in Small Mountain Communities

Housing delivery in mountain communities creates operational and construction pressures that differ substantially from many urban markets. Communities such as Pemberton, Whistler, Golden, and Revelstoke expose buildings to:

- high snow loads,
- large temperature swings,
- moisture exposure,
- wildfire smoke events,
- labour shortages,
- logistical constraints, and

- increasingly volatile climate conditions.

Under these conditions, building performance deficiencies become visible quickly. Poorly detailed envelopes experience accelerated deterioration. Mechanical inefficiencies become operationally apparent sooner. Buildings dependent on excessive complexity become more difficult to service and maintain in smaller communities with limited technical capacity. These realities significantly shaped our approach to housing delivery.

Over time, one of the clearest conclusions was that buildings operating in harsher climates generally need to become:

- simpler,
- more durable,
- more maintainable, and
- more operationally resilient.

Every unnecessary penetration, transition, equipment dependency, or coordination conflict creates additional long-term operational vulnerability.

At the same time, mountain communities often experience some of the province's most severe labour and housing pressures. Construction systems must therefore remain practical to build under constrained labour conditions and shorter seasonal construction windows.

These constraints reinforced the importance of:

- repeatable systems,
- simplified assemblies,
- manufacturing integration,
- improved envelopes, and
- disciplined coordination.

Operational resilience also becomes increasingly important in these environments.

Buildings must maintain:

- stable indoor temperatures,
- low thermal demand,
- reliable ventilation during smoke events, and
- long-term durability under severe environmental exposure.

Projects such as Orion, Radius, OSO, and the Alders became operational testing grounds for these strategies under demanding climate conditions.

One important observation from this work is that buildings capable of performing reliably in mountain climates generally perform exceptionally well when adapted to less demanding environments elsewhere in the province.

In many respects, mountain conditions forced greater discipline into the delivery process. They reinforced the importance of:

- enclosure quality,
- simplified systems,
- durable detailing,
- operational efficiency, and
- long-term climate resilience.

As climate pressures and affordability pressures continue increasing across Canada, many of the lessons learned in smaller mountain communities are becoming increasingly relevant to housing delivery more broadly.