

CASE STUDY



Whistler Housing Authority Whistler, BC

SCOPE & SUCCESS

HVAC System and Solutions worked with their client, Whistler Housing Authority and Mechanical Engineer Pinchin Ltd. on this project which features Swegon GOLD series ERVs, a VRF heat pump system and integration with Swegon REACT Dampers. **The development consists of 24 rental apartment units to be operated by the Whistler Housing Authority.**

HIGHLIGHTS

- > Exceeds the Resort Municipality of Whistler's sustainability requirements for wood frame
- > Savings and operational costs due to the Swegon VAV solution
- > 30% savings on equipment capital cost compared to decentralized ventilation solutions

OVERVIEW

1020 Legacy Way – Whistler, BC collaborated with Integra Architecture on an employee housing project committed to environmentally sensitive practices.

The low-rise apartment project is set to meet Passive House standards exceeding the Resort Municipality of Whistler's sustainability requirements for wood frame. The development consists of 24 rental apartment units to be operated by the Whistler Housing Authority.

! CHALLENGE

MEET (AND EXCEED) PASSIVE HOUSE STANDARDS AND SUSTAINABILITY REQUIREMENTS AS PER WHISTLER'S RESORT MUNICIPALITY'S GUIDELINES



SOLUTION

HVAC SYSTEMS AND SOLUTIONS is proud to be a part of this project. A key part of HVAC System's design included a centralized ventilation solution, including a high-performance ERV, integrated VRF post-heating and post-cooling, and control dampers.

SWEGON GOLD SERIES Passive House Certified ERV with a heat recovery ratio of +85% and VRF heat pump system with COP of 4.4 meet the building's challenging air filtration and energy targets. **SWEGON REACT DAMPERS** are integrated into the system design to provide individual suite control, cooling and heating to each suite, and a free cooling option.

RESULT

HVAC SYSTEM'S centralized ERV, VRF heat pump and REACT damper solution for Whistler Housing Authority saved 30% on the equipment capital cost compared to a decentralized ventilation solution. The VAV solution in conjunction with the centralized system has the potential to present large savings on operating cost, avoid over/under ventilation and provide cooling in each suite. Providing mechanical equipment with built-in control smooth the commissioning and balancing process for this project.

PASSIVE HOUSE: REACT DAMPER INTEGRATION WITH GOLD ERV SCHEMATIC

