

SEMLIN GARDENS – YOUNG WOMEN’S CHRISTIAN ASSOCIATION (YWCA) METRO VANCOUVER

Location: Vancouver, BC

Client: BC Housing

Mechanical Engineer: Impact Engineering



Minutes from the Broadway Skytrain Station, this 28-unit building provides 2- to 3-bedroom housing for single women and their dependent children. With its communal garden, outdoor play area for children, and amenity room, this building provides a sense of community to the single mothers and children that accommodate it. The facility also houses spaces for YWCA programs/services, community events, educational workshops, children’s programs, and a community kitchen.

HVAC Systems is proud to be part of this retrofit project that provides housing and community to single women and their children. HVAC Systems, Impact Engineering and Meridian Plumbing collaborated to design and implement a centralized heating system that supplies both domestic hot water and space heating to the building. The workhorses of this system are the [Colmac Waterheat](#) CxA-10 and CxA-15, air-source heat pumps that boast parkade exhaust capabilities, intelligent defrost, unit interconnectivity for staging and lead/lag, and reduced footprints.



Each unit communicates with the next via PLC controller and BACnet, to coordinate lead/lag, staging and unit run-time. The control system also monitors the space heating and domestic hot water requirements to coordinate the fulfilment of each.

One unique feature that the CxA units provide is the ability to provide parkade exhaust. This grants the units a third purpose of expelling exhaust air from the parkade area – alleviating the requirement of a separate parkade exhaust fan.

HVAC Systems appreciates the opportunity to be a part of this great project and are excited to implement this multi-faceted system in future housing designs.