

CLASS-A OFFICE TOWER

947 FORT STREET

VICTORIA, B.C.

KEY PARAMETERS

- Type of Facility – New Construction
- Function – Upscale Professional Offices with Retail
- Area – Six stories, 44,000 sq. ft.
- Project Completed – 2010
- LEED Gold

Challenge: Sustainable design. Designing for LEED Gold certification, engineers and owners wanted to add value by incorporating indoor atmospheric quality management systems and programs into the project design for optimum IAQ during occupancy. Developers recognized that the filtration system would add to the building's sustainability and reduce ongoing operating costs.



Solution: Dynamic V8 Air Cleaning Systems (MERV 13-15+) were included as one of the building's design elements. The system features a low air pressure drop relative to 80 per cent or greater passive mechanical filters which reduces required fan energy and lowers energy usage. These factors help earn LEED points. The system also features a very high dust-holding



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capacity that extends filter replacement schedules from months to years. The air cleaners were installed in a custom air handling unit (AHU) featuring a heat wheel to provide clean, tempered air to hybrid heat pumps. The heat pumps use compressors for cooling only, and use hot water coils for heating. The project also included an air to water heat pump on the roof. The heat pump plant operates much the same as a geothermal system, but in Victoria's moderate climate, it uses air as the heat transfer source to provide heating and cooling for the building.

Results: The Dynamic V8 Air Cleaning Systems removed ultrafine particles and odors while at the same time reducing energy costs and disposal costs relative to high efficiency passive filters. Longer maintenance intervals have had a significant impact on operating costs. According to Terry Siklenka, GM at Cairnview Mechanical, "The tenants in the building expected the highest quality of air and Dynamic proved itself the best both in product and support. As we completed our first year of warranty, we had no issues at all with the product and the building clients were completely satisfied with the superior air quality that Dynamic delivered."



TEAM

- Owners/Developers – Tri-Eagle Development Corporation, Trebizond Developments, Homewood Constructors
- Architects – de Hoog & Kierulf
- Mechanical Contractor – Cairnview Mechanical Ltd.
- Engineers – Genivar (formerly HWT)

MECHANICAL SYSTEMS

- HVAC – Trane, Haakon, Semko, Multistack, CGC Group, Inc.

www.DynamicAQS.com