



444 – 5th Avenue SW

HEATING, VENTILATION, & AIR CONDITIONING FACTSHEET

Address: 444 – 5th Avenue SW, Calgary, AB T2P 2T8

General Description: 444 – 5th Avenue SW is a 23 storey B Class office building located in the central core of downtown Calgary. The property was constructed in 1972 and is bound on the south by 5th Avenue SW, a major one way, four lane roadway, running east through the entire length of the downtown core area.

Mechanical Engineer: TMP Consulting Engineers Ltd.

General:

- The building automation is Trane, Tracer Summit.
- Heating to the tenant spaces is provided by perimeter radiation (5 zones per floor) and Variable Air Volume (“VAV”) interior and exterior (cooling) air boxes (15 -19 per floor).
- All boilers and chillers were replaced between 2003 and 2005

Design Criteria: The VAV air system is mixed air cooling only for terminal VAV boxes. Central MAU (Makeup Air Unit) brings in 100% outside air with preheat and cooling coils located on the 24th floor serving the floor compartmental fan units. These compartmental units are VFD (Variable Frequency Drive) controlled, with cooling coils only and draw a fixed amount of makeup air and return air. Static pressure within the building, temperature, VFD speeds and CO2 controls regulate the minimum outdoor air requirement.

Filters: MERV 10 pre-filters and MERV 13 bag filters. Pre-filters are changed every three months and Bag filters are replaced yearly.

Heat: Two Dedietrich boilers Series GTE – 517 Cast Iron sectional boilers, with Power Flame Model C3-G-25BHTDC Burners.

Natural Gas: 3,628,000 BTU’s each for a total of 7,256,000 BTU’s. Installed in 2005.

Air Conditioning: Two Trane Series R134A equalling 210 tons each installed in 2003. Compartment fans on every floor, each equipped with a VFD (Variable Frequency Drive) and connected to the automation system.

Air Exchange: Tower Floor Air Exchanges will be up to 6 times per hour. With a complete Outdoor air replacement every hour.

Standard Hours of HVAC Operation: 6:00 a.m. to 6:00 p.m. Monday to Friday



COVID-19 and HVAC

Ventilation and filtration provided by HVAC systems can reduce the airborne concentration and risk of transmission through the air. However, even the most robust HVAC system cannot control all airflows and completely prevent the spread of the virus. Ventilation and effective airflow pattern is however a primary infectious control strategy. The filtration systems in 444 – 5th Ave are first class and at the high end of the MERV (Minimum Efficiency Reporting Value) rating system, which is consistent with recommendations from the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) April 2020 position paper on Infectious Aerosols. With the warmer weather, our dampers are open to allow for maximum fresh outdoor air to dilute air contaminants that are generated by the building, its furnishings and its occupants that may potentially carry COVID-19.