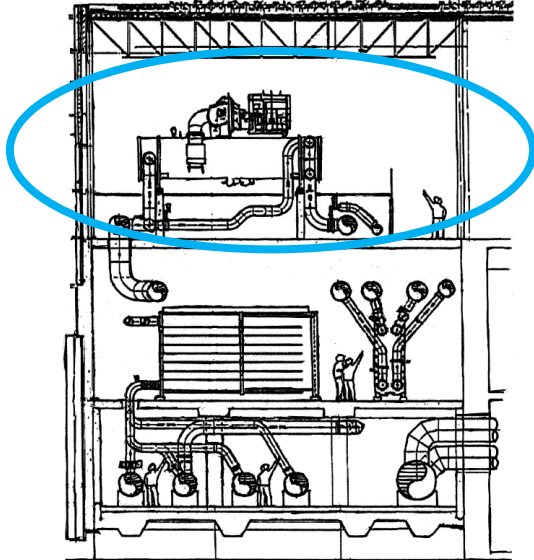


Enwave Facility tour with ASHRAE

June 27 and June 28, 2022

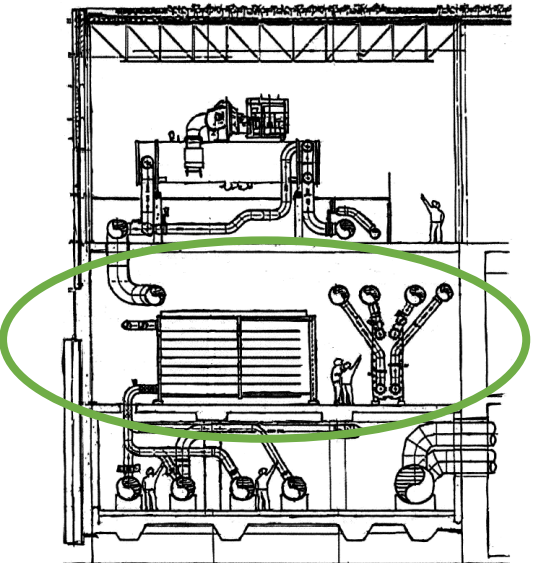
John Street Pumping Station:



CHILLER FLOOR

Enwave water moves from the heat exchangers into the chillers where they get an extra boost of cooling, down to 3 °C for further cooling capacity.

Each chiller has 2,700 tons of cooling capacity and is powered by electricity.



HEAT EXCHANGERS

The City water passes through a series of heat exchangers where heat is transferred from the Enwave cooling loop into the drinking water supply, raising its temperature to 13 °C. The Enwave cooling loop has transferred the heat energy it took from buildings into the drinking water and is now cooled down to 4 °C.

The two water loops never mix or touch.

- 18 pairs of heat exchangers, 36 in total
- 850 plates, 17,000 square feet of plate area
- Water flows at 70,000 US gpm/ 265,000 l/min

PIPING GALLERY

The three intake pipes from Lake Ontario draw in 4 °C water. The water is filtered at the City of Toronto Island Filtration Plant.

It is then sent to the John Street Pumping Station and flows through the piping gallery before reaching the heat exchangers.

After flowing through the heat exchangers one level above, the drinking water moves back into the potable water system and around Toronto.

