

Case Study

THE BLUE DUCT®

Sanford YMCA, Natatorium Ventilation with Underground

Location: Fargo, North Dakota
General Contractor: Gehrtz Construction
Engineering Firm: Obermiller Nelson
Installing Contractor: Midwest Mechanical

Sanford Health System's mission is centered on the health and wellness of their patients. Not only are they expanding their network of hospitals and clinics, but they are also



providing for preventative care. One aspect of this preventative care is to team up with The YMCA to build a state-of-the-art fitness center for the people of their community to stay active during the long winter months in Fargo, ND. The centerpiece of this new facility is the natatorium.

The wall of glass separating the pool space from the cold out-door air is always a concern for natatorium design. The indoor climate is controlled to 84°F with 50% relative humidity and the outdoor climate can be as cold as -30°F (below zero). The challenge for the mechanical design team at ONE of Fargo is to keep the glass clear of frost and condensation throughout the year. With a 114°F temperature differential separated by a wall of glass, the design team had no room for error.



The BlueDuct® underground air duct supplies air to the linear diffusers in the natatorium area



Jeremiah Christenson, Managing Principal of ONE, selected The BlueDuct® for its inherent features of being air tight, water tight, insulated and able to last as long as the building itself to supply warm, dry air to "wash" the glass clear of condensation. The BlueDuct® is made of high density polyethylene making it a great choice so it can stand up to the highly corrosive environment of a natatorium space.