



OSF Medical Office Building: Gladstone, MI

[Home](#) / OSF Medical Office Building: Gladstone, MI



PROJECT DESCRIPTION

Client: OSF St. Francis Hospital
Project: Gladstone Medical Office Building
General Contractor: Brinkmann Constructors
Floor Area: 18,145 sf
Construction Schedule: June 2017

PROJECT APPROACH

Design/Build

ROLE

HVAC Contractor, Engineer of Record

ENERGY SAVINGS

Wiegmann performed an energy analysis on this \$5 million efficient hot water reheat VAV system, though more expensive up-front, would return a simple payback of 7.9 years as compared to electric heat.

PROJECT CHALLENGE/SOLUTION

The client wanted a cost-efficient, energy-efficient and long-lasting (20 to 30 years) HVAC system. The building structure was not conducive to roof-mounted HVAC equipment so we recommended a split system with an outdoor condensing unit on a concrete pad and refrigerant piping to an indoor air handler inside a mechanical room.

For longevity and easy cleaning, we specified a double-walled air handler with foam insulation, a rust-resistant stainless steel drain pan under the cooling coil, and a variable frequency drive (VFD) on the supply fan. The supply fan VFD upgrade allows the motor and fan to "soft start" for better efficiency and longer equipment life than a constant speed fan. Other energy upgrades included an airside economizer, high efficiency condensing boilers with 97 percent thermal efficiency, and Variable Air Volume (VAV) boxes with hot water heat, which is significantly more efficient than electric heat.

PROJECT SCOPE

Wiegmann was the engineer of record and designed an energy-efficient hot water reheat VAV system and a building automation system for this medical facility in Gladstone, Michigan. The new building, which replaced an existing clinic, provides expanded space for patient exam and treatment rooms, a lab, medical imaging equipment, and designated areas for occupational therapy, wound care and audiology services.