



Case Study:

**Temple Sinai in Washington, DC Benefits from Artisan Partners Expertise
and Innovative Heating and Cooling System**

Temple Sinai, a major Washington, DC Reform Congregation Synagogue, needed a new mechanical system. The heating and AC functions were outdated and very inefficient. Artisan Partners was asked to provide ideas for the best replacement system and implement the plan for the 45,000-square-foot synagogue facility.

“In our role as construction managers and owner’s representative we have the unique ability to come in and challenge the process in an unbiased fashion and then go out and hire the right contractors for the job,” said Adam Prill, Artisan Partners Principal. “We recognized that a traditional mechanical system -- with cooling towers, chillers, and pumps -- might not be right for the synagogue.”

The Artisan team was aware of a mechanical system relatively new to the US: Variable Refrigerant Volume (VRV) or Variable Refrigerant Flow (VRF). While new to the US, it has been widely used in Japan for several decades, primarily in schools and institutional facilities. It is a smart system that senses what capacity to ramp up or ramp down in a building. The beauty of a VRV system is that it can provide cooling and heating simultaneously to different parts of the building, thus delivering maximum energy savings.

Through the process of analyzing what was the best mechanical system for the synagogue, the Artisan team recognized that a VRV system would cost \$400,000 less to install, but, importantly, would also provide significant energy-cost savings long term.

Work will begin soon on the project at the facility that includes a sanctuary, classrooms, library, office space, and multipurpose rooms. Artisan Partners is providing total construction management services for the construction drawings, permitting, contract bidding, and oversight of work through completion