IPD Engineering was challenged with the “right sizing” of two boiler plants at the Met Life Oriskany facility to provide adequate capacity to meet the building’s load and minimize energy usage. The facilities group provided trend data from previous years one of which could be considered an extreme weather year. Analysis of this data provided the required information to size the equipment based on actual building load. The original building was constructed in 1972, the boiler plan for that structure consisted on two gas fired steam boilers with a hot water converter to provide circulated hot water to heat the building. In 1989 the building received a substantial building addition. This project required that the original building continue to operate while the major addition was completed, therefore a second boiler plant with similar steam boiler equipment was developed.

IPD engineered the steam boiler and hot water converter replacement for both boiler plants. Each new boiler plant received two high efficiency low mass natural gas fired boilers. New secondary hot water pumps were also equipped with variable speed drives and differential pressure control to reduce pumping energy and match water flow to building load. High-efficiency boilers require dedicated combustion air intake and exhaust which is a challenge when replacing existing boilers. IPD designed the system to utilize the existing boiler stacks to rout the new combustion air and intake vents through the existing chimney to their outlets at the second story roof, saving extensive work to create a new path for the venting. The exiting combustion air intakes where reduced to capacities required for summer ventilation only generating further energy savings. The new boilers were fully integrated into the exiting building management system to provide system monitoring and provide energy usage output.

The project engineering and construction completed on time and in budget which was a major requirement for our client Cushman Wakefield Property Management making this a very successful project for the entire team.