In FY 2013 a team of architects and engineers from Wright-Patterson’s 88 Air Base Wing Civil Engineering Division successfully salvaged and renovated an underused, historic 53,000 square foot hangar built in 1934, increasing usable laboratory space by 60% while reducing water use by 45% and energy use by about 30%.

The new energy efficient building allowed the Air Force Research Laboratory’s Power Control Division, formerly located in multiple locations, to consolidate. An improved thermal envelope with spray foam insulation, stringent HVAC requirements, high-efficiency glazing, reduced exterior lighting, and occupancy sensors are projected to reduce energy use by 9.8 billion Btu and energy costs by more than $141,000 per year. Water savings are estimated at 62,000 gallons per year.

The building design surpassed the required Leadership in Energy & Environmental Design Silver criteria to achieve Wright-Patterson’s first Gold Certification. Further, the renovation/consolidation project allowed for the demolition of building 450, reducing Wright-Patterson’s footprint by 148,300 square feet and saving an additional 8.7 billion Btu annually.