

Four Oaks Center Energy Efficiency Upgrades

Xenia, OH

Construction Completion: 2013
Construction Cost: \$700,000
Size: 15,700 SF
Tri-Tech Services: PME Engineering



Project Description

Four Oaks Early Intervention Center is operated by the Greene County Board of Developmental Disabilities, and serves children in the local community. Due to the age of the facility, Greene County sought to update aspects of the building infrastructure to improve energy efficiency. This included window replacement, HVAC equipment replacement, light fixture replacement, and an upgrade of the existing electrical utility service.

Tri-Tech worked with the architect and owner to select new light fixtures to improve appearance, increase light levels, and reduce energy usage. The design also included replacement of existing lighting controls with new occupancy sensors throughout the building.

Mechanical design for the building included replacement of existing through-wall unit ventilators and PTAC units throughout the building. Due to the age of the building, it was determined that the units which were removed did not provide adequate ventilation per current code requirements. Additionally, it was desired that the new units provide air conditioning, which was previously accomplished in limited spaces with small window-mounted units.

Throughout the project, Tri-Tech sought to minimize construction costs by utilizing existing infrastructure. This included re-use of existing hot water piping for the unit ventilators, and re-use of much of the electrical distribution, despite the utility service voltage changing from single phase to three phase. Additionally, construction was phased to allow the facility to remain in operation during construction.