



Owner: Utica Municipal Housing Authority | Location: Utica, NY | Completion Date: 2020

Chancellor Apartments is a Senior/Disabled development, containing 93 one-bedroom units, located in Utica, New York.

The audit process for Chancellor Apartments involved completing an ASHRAE level 2 audit, which includes assessing the condition of the existing mechanical systems, evaluating the building envelope and inspecting the water and electrical appliances throughout the apartments. A comprehensive audit of the 93 unit building gave us valuable information about the condition of the masonry framed building envelope, the aging windows and skylight. Our inspection of the heating and DHW equipment also led us to recommend additional upgrades to these systems.

Energy and cost savings were calculated by building an energy model using TREAT Multifamily. This energy model is weather normalized and trued-up to reflect the previous two years of historical utility data. We then built an energy model based on the existing conditions found during the audit. From this, an improvement package can be built, including upgrades to various areas of the building. This building in particular had a unique modeling process due to a large, heated atrium space.

Through a combination of upgrades to the skylights, common area windows, thermal envelope, temperature controls and the addition of a photovoltaic system, an

overall energy savings of 2,582 mmBtus or 31.9% could be achieved. This would result in an annual utility savings of \$41,500 for gas and electricity. Additionally, the flow rates of existing water fixtures were measured, leading us to recommend low flow fixtures, resulting in 637,000 gallons or a 26.6% savings annually.

Teaching maintenance staff and residents how to manage their new heating equipment will be invaluable to demonstrating savings. A lack of monitoring and control on the existing system's heating resulted in an abnormally high amount of wasted energy due to infiltration or overheating. Additionally, tenant education will be valuable in order to prevent any repeated overheating of the apartments.

Regular visits to the site to inspect vacant units and common area work will be critical to support the project's energy savings goals. Comprehensive documentation on the types of equipment and appliances will be collected, and photos will be taken by auditors and site staff whenever energy measures are installed. Testing will also be conducted on the mechanical equipment to verify their efficiency is accurate to our models.