

\$16,000
IN
ANNUAL SAVINGS

SUSTAINABLE CPC: A STUDY IN SAVINGS

ENERGY STAR Certified | Low-Rise New Construction



BUILDING PROFILE

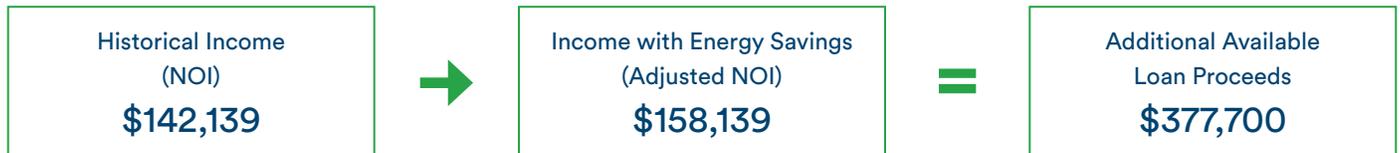
Year Constructed	2014
Size	3 Buildings, 3 Floors, 78 Apartments, 251 Rooms, 86,832 Gross Square Feet
HVAC System	Central Hot Water Heat, Individual Heat Pump Cooling
Utilities Provided by Owner	Heat, Hot Water, Water & Sewer

This complex provides supportive services for residents with developmental and physical disabilities. Each apartment unit is certified under ENERGY STAR Homes Version 3.0 and has passed a blower door test for airtightness. The property features ample community spaces and modern amenities, in addition to energy-efficient appliances, in-unit thermostats, and low-e argon-filled windows.

PROJECT PROFILE

Loan Type	Construction and Permanent Loan
Loan Offering	\$2.6 million

ADDITIONAL LOAN PROCEEDS SUPPORT ENERGY AND WATER EFFICIENCY



SAVINGS SNAPSHOT

Installing efficient, central heating equipment, combined with airtight, thermally insulated units, resulted in much lower heating usage and demand per square foot compared to a similar apartment complex of standard construction. Water and

electricity usage were similar to or higher than a comparable property. This is attributed to specific usage factors at the subject property, such as special needs of residents, large common area demand, and multiple amenity spaces.

UTILITY	CONVENTIONAL PROPERTY ANNUAL EXPENSE (\$/APARTMENT)	SUBJECT PROPERTY ANNUAL EXPENSE (\$/APARTMENT)	EXPENSE DIFFERENCE
Electricity	\$375	\$389	+4%
Gas	\$420	\$200	-52%
Water	\$190	\$189	-1%
Total	\$985	\$778	-21%

SCOPE OF WORK

- High-efficiency, sealed combustion hot water boilers for space heating and domestic hot water
- ENERGY STAR ceiling-mounted ductless mini-split ACs
- Individual-unit thermostats for heating and cooling
- Low-e, argon-filled windows
- Insulated walls (R-25) and roof (R-59)
- ENERGY STAR refrigerators and exhaust fans in units
- ENERGY STAR washing machines in common areas
- Efficient lighting throughout, occupancy sensors in common areas
- Units sealed for airtightness and verified with blower door testing
- Low-flow plumbing fixtures in bathrooms and kitchens

FEATURED UPGRADE

AIR-SEALING

Air-sealing is an easy and cost-effective way to reduce energy waste and create a more comfortable living environment. Contractors can use caulk or foam to seal common air penetration areas such as AC sleeves, pipes, windows, and electrical outlets. In new construction projects, air-sealing can be integrated into the construction process, or gaps and seams can be sealed after wall components are installed. Air-sealing is a valuable exercise for existing units as well, as changing seasons will inevitably cause cracks and gaps to open.

IS THIS UPGRADE RIGHT FOR YOU?

If any of the following apply, then yes!

- ✓ High heating and cooling usage
- ✓ Multiple-floor buildings
- ✓ Apartment units with interior wall penetrations (radiators, AC sleeves, recessed lighting, ducts, vents)

FEATURED UPGRADE

COMBINED HEAT AND POWER (CHP)*

Combined heat and power (CHP), also known as cogeneration, uses a high-efficiency, gas-fired generator to produce electricity at a lower cost than the utility company while capturing the generator's waste heat to condition the building's domestic hot water. In addition to the energy savings provided by this configuration, some generators are capable of starting during a power outage, or black-starting, powering critical loads when the utility electric service is interrupted. Supportive housing properties have larger electricity demands than typical housing and a greater need for reliable power to provide round-the-clock service to residents with special needs. The combination of efficiency and resiliency benefits residents and makes cogeneration a valuable source of long-term savings.

IS THIS UPGRADE RIGHT FOR YOU?

If any of the following apply, then yes!

- ✓ Consistently high electrical load and sufficient hot water needs
- ✓ Existing gas service or plans to install a gas line
- ✓ Central domestic hot water system
- ✓ Adequate space in the mechanical room or on the roof for new system

*CHP was not included in this project, but is recommended for similar projects.