

## SHOWCASE PROJECT: ISLAND GROVE VILLAGE

### SOLUTION OVERVIEW

Island Grove Village Apartments (IGV) is an affordable multifamily housing complex of 108 units built in 1972. Its mission is to provide affordable housing, family assistance support services, and economic and educational opportunities for adults and youth at IGV and the surrounding community. Located on six acres in Greeley, Colorado, IGV is owned by Trinity Housing Corporation of Greeley, a faith-based nonprofit. Trinity Housing joined the Better Buildings Challenge in 2014 and was among the first partners in the Multifamily Sector.

IGV had deferred maintenance issues and needed upgrades to old furnaces, antiquated lighting, and inefficient toilets. The 5-gallon toilets were original to the property, while the furnaces had not been replaced since 1995. Property lighting consisted of low-pressure sodium lighting in the parking lots and incandescent and florescent lighting in units and building common areas.

### SECTOR TYPE

Multifamily

### LOCATION

Greeley, Colorado

### PROJECT SIZE

78,000 Square Feet

### SOLUTIONS

In 2014, Trinity Housing and its Board of Directors embarked on a long-range plan to not only meet the requirements of the Better Buildings Challenge, but reduce their overall energy and water consumption. IGV's upgrades have been funded through a variety of sources that include a Colorado Energy Outreach grant and an International Center for Appropriate and Sustainable Technology (ICAST) grant.

Noteworthy upgrades include:

#### Electric

- Whole-property LED and ultra-bright LED lighting retrofits
- Installed Temperature Limiting Thermostats in all 108 apartments
- Installed updated bathroom fans property-wide

## Gas

- Installed 97% and 95% energy-efficient ENERGY STAR furnaces with electronically commutated motors (ECM)
- Installed 110 16-Seasonal Energy Efficiency Ratio (SEER) air conditioners
- Installed 10 91% energy-efficient boilers property-wide to upgrade to the domestic hot water system

## Water

- Replaced kitchen and bathroom aerators and showerheads with ultra-low-flow units
- Installed low-flow flapperless toilets building-wide
- Installed front-loading washing machines in the laundry room
- Upgraded to a landscape sprinkler system that combines web-based irrigation management, real-time weather data, and wirelessly connected smart controllers

## OTHER BENEFITS

In addition to energy, water, and cost savings, Trinity Housing Corporation of Greeley realized several other benefits from the upgrades. Resident comfort and quality of life increased as a result of improved unit airflow from HVAC enhancements. The property upgrades also increased the availability of funding for property maintenance and improvement. The cost savings that have been gained from a decrease in energy and water consumption are reinvested into the property. Finally, the installation of ultra-bright LED lighting around the property improved resident's safety.

## Annual Energy Use

(Source EUI)

Baseline(2011)

142 kBtu/sq.ft.

Actual(2019)

114 kBtu/sq.ft.

## Energy Savings

20%

## Annual Energy Cost

Baseline(2011)

\$114,000

Actual(2019)

\$90,000

## Cost Savings

\$24,000



Trinity Housing Corporation of Greeley's Island Grove Village Apartments has nine residential buildings.



One of Island Grove Village Apartments' residential buildings.