

# ENERGY STAR Multifamily High Rise Building Profile

## Francis House of Peace

810 Arch Street  
Philadelphia, Pennsylvania 19107



### Building Developer:

Project H.O.M.E.

### Licensed Professional:

William Kramer, Kramer Marks Architects

### Year Certified:

2016

### Construction Type:

New Construction

### Sector:

Affordable Housing

### Technologies Used:

- 94% efficient condensing gas-fired central DHW
- 3.59 COP packaged heat pumps
- Fiberglass, low-E double pane windows
- Low-flow, WaterSense Certified Fixtures

### Building Description:

Francis House of Peace is a 9 story building in Philadelphia, Pennsylvania, providing 94 ENERGY STAR certified one bedroom apartments.

The apartments have packaged terminal heat pump units with efficiencies of 3.59 COP and 11.6 EER. Domestic hot water is provided by a 94% efficient condensing gas-fired central boiler, and the natural gas needed to heat the water is also reduced through the use of low-flow showerheads and faucets. ENERGY STAR certified refrigerators, lighting, and exhaust fans are installed to further reduce the electricity consumption in the apartments of the building.

The wall assembly consists of 2x6 steel-framing, R-19 fiberglass batts, and 3" of continuous EPS insulation. The roof is insulated with rigid polyisocyanurate (~R-36). High-performance fiberglass low-E double-pane windows with a U-value of 0.28 and SHGC of 0.28 provide increased thermal performance of the envelope. The units were tested at airtightness levels of an average 0.24 CFM50 per square foot of enclosure, surpassing program requirements by 20%. The level of compartmentalization will reduce energy costs and improve comfort and indoor air quality. Also contributing to better IAQ, is their ASHRAE 62.2-compliant ventilation system, which delivers fresh air to each unit through the heat pump and provides separate local exhaust in the kitchen and bathroom.

The project is modeled with projected cost savings of 31% over a building that meets ASHRAE Standard 90.1-2007.

