SHOWCASE PROJECT: SCHOCHET COMPANIES: SHEPHERD PARK APARTMENTS

SOLUTION OVERVIEW
Shepherd Park Apartments is a 373-unit, 7-building apartment complex that provides subsidized senior housing. Originally built in the early 1900s, the property served as a ward and convent until 1980, when it was rehabilitated as affordable housing.

Since 2012, the property has implemented a broad range of efficiency upgrades as part of The Schochet Companies’ robust portfolio-wide Sustainability Initiative. The initiative includes substantial energy reduction goals as well as water and greenhouse gas reduction goals.

SECTOR TYPE
Multifamily

LOCATION
Hartford, Connecticut

PROJECT SIZE
144,000 square feet

FINANCIAL OVERVIEW
Project Costs: $656,650 plus $177,980 in utility incentives

SOLUTIONS
In partnership with Rethinking Power Management, a Boston-based sustainability and engineering consultancy, significant efficiency opportunities at the site were identified and implemented. The first step was rightsizing equipment, which reduced up-front costs as well as ongoing operational costs. Next came boiler upgrades, replacement of hot water circulation pumps, unit air sealing, lighting upgrades, and water conservation measures. The site also installed a water treatment system to clean and protect the distribution piping. Shepherd Park also received over $170,000 through a local utility incentive program.

Specific Project Details:

- **Boiler Replacement** – The boilers serving three of the buildings were at the end of their

For more information, visit [https://betterbuildingssolutioncenter.energy.gov/showcase-projects/schochet-companies-shepherd-park-apartments](https://betterbuildingssolutioncenter.energy.gov/showcase-projects/schochet-companies-shepherd-park-apartments)
useful life. By installing high-efficiency condensing boilers, the site was able to take advantage of utility incentive programs to offset the higher initial cost.

- **Annual Therms Savings:** 4,230 therms  
  - **Estimated Avoided Costs:** $4,737  
  - **Project Cost:** $165,108  
  - **Utility Incentive:** $33,199

- **Hot Water Circulation Pump Replacement** - In addition to rightsizing, the pump replacement project addressed a number of ongoing maintenance issues.
  
  - **Downsized from two to one high-efficiency circulation pump**  
    - **Annual kWh Savings:** 27315 kWh  
    - **Estimated Avoided Costs:** $3,278  
    - **Project Cost:** $59,378  
    - **Utility Incentive:** $21,950

- **Interior LED Lighting Project** - The property underwent two lighting upgrades. The initial upgrade to induction lighting was less than optimal and so a second upgrade, this time to LEDs, was completed.
  
  - **Upgraded common area and tenant spaces**  
    - **Annual kWh Savings:** 39,752 kWh  
    - **Estimated Avoided Costs:** $4,770  
    - **Project Cost:** $66,412  
    - **Utility Incentive:** $14,956

- **Exterior LED Lighting Project**
  
  - **Annual kWh Savings:** 42,536 kWh  
    - **Estimated Avoided Costs:** $5,104  
    - **Project Cost:** $88,052  
    - **Utility Incentive:** $39,599

- **Unit Air Sealing** – In addition to reducing energy use, air sealing reduced issues with cooking smells.
  
  - **Annual Therms Savings:** 7,706 therms  
    - **Estimated Avoided Costs:** $8,631  
    - **Project Cost:** $62,415  
    - **Utility Incentive:** $62,415

- **Unit Water Saving Measures** – Installing 0.8 gpf toilets as well as low-flow devices saved on both water and sewer costs.
  
  - **Installed low-flow toilets, faucets, and showerheads**

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- Annual Therms Savings: 190 therms
- Estimated Avoided Costs: $213
- Project Cost: $5,865
- Utility Incentive: $5,865

**OTHER BENEFITS**

As well as increasing overall efficiency, the interior and exterior lighting projects helped to alleviate safety concerns inside and outside the buildings. Additionally, the air sealing and insulation work has increased occupant comfort and reduced odors, as well as decreasing the number of maintenance calls for staff. To maintain and ensure the increased standard of comfort for occupants, Shepherd Park also implemented an effective green-cleaning program, passed a no-smoking policy, and instituted an integrated pest management plan.
<table>
<thead>
<tr>
<th>Annual Energy Use</th>
<th>Annual Energy Cost</th>
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</thead>
<tbody>
<tr>
<td><strong>Baseline (2011)</strong></td>
<td><strong>Baseline (2011)</strong></td>
</tr>
<tr>
<td>168 kBtu/sq. ft.</td>
<td>$475,940</td>
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<tr>
<td><strong>Actual (2017)</strong></td>
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<tr>
<td>135 kBtu/sq. ft.</td>
<td>$407,840</td>
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<tr>
<td><strong>Energy Savings</strong></td>
<td><strong>Cost Savings</strong></td>
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<tr>
<td>20%</td>
<td>$68,100</td>
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</tbody>
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Shepherd Park Apartments community green

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