

### A.G. Gaston Boys & Girls Club

900 S Park Dr. SW, Birmingham, AL 35211

#### PROJECT OVERVIEW

The Kirkwood Balton Unit of the A.G. Gaston Boys & Girls Club in Birmingham has a heated indoor pool, which is a great asset, but can be expensive to maintain. The pool had been in operation for nearly 40 years, and had developed several leaks. These leaks, as well as irrigation system leaks were located and repaired. A pool blanket was purchased and installed on the pool surface whenever the pool is unoccupied to prevent evaporation losses, saving water, pool chemicals, and pool heating energy. New Web based thermostats with integral occupancy sensors were installed to improve control of facility HVAC systems.

Other improvements include new LED lighting in the natatorium and conference room, 0.5 GPM faucet aerators, 1.5 GPM showerheads, and a new tankless water heating system to serve the boys' locker room.



PROJECTS IMPLEMENTED	PREDICTED ANNUAL SAVINGS					PROJECT COST	PROJECTED RETURN ON INVESTMENT
	WATER (CCF)	COSTS	MILLION BTU (SITE)	MILLION BTU (SOURCE)	CO2 EMISSIONS (TONNES)		
High priority lighting efficiency upgrades & lighting controls	—	\$869	22	68	3.1	\$15,330	6%
Pool & irrigation system repairs	962	\$4,145	79	79	3.7	\$1,375	301%
Install a pool blanket when pool not in use	69	\$6,567	541	541	25.5	\$11,120	59%
Install Web based programmable thermostats for five rooftop HVAC systems, and replace boys' locker room water heating system with high efficiency system	—	\$4,591	286	380	17.7	\$8,040	57%
<b>PROJECTED TOTAL SAVINGS, COST, &amp; ROI</b>	<b>27%</b>	<b>23%</b>	<b>27%</b>	<b>22%</b>	<b>22%</b>	<b>\$35,865</b>	<b>45%</b>

#### SITE DETAILS

Average daily attendance of **81**

**27,877** square feet

Constructed in **1977**

#### ENERGY & WATER BENCHMARKS

**\$70,000** in baseline utilities cost

**11 million** Btu of energy per member per year

**2,365 gallons** of water per member per year

#### IMPROVEMENTS

Invested **\$36,471**, or **\$1.29** per sq. ft.

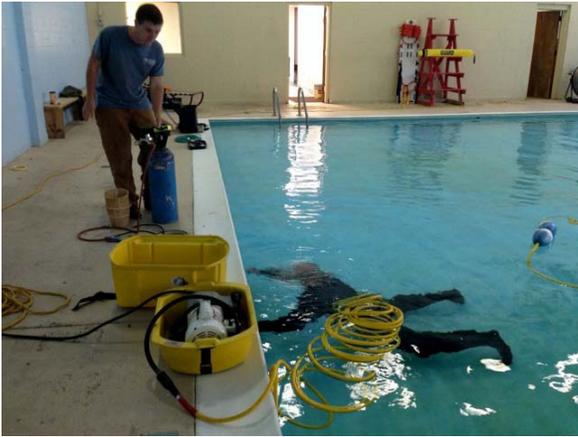
Predicted return on investment (ROI) of **45%**

Actual savings – after only 8 months – of over **\$33,000**, **39%** energy savings, and **52%** water savings

Through partnerships with national nonprofits including the Salvation Army, Boys & Girls Clubs of America, and Feeding America, the Nonprofit Energy and Water Efficiency (NEWE) Initiative delivers cost savings through energy and water reduction resulting in additional funds that can be reallocated toward each nonprofit's mission.

Learn more at [southface.org/NEWE](http://southface.org/NEWE).

# Project Highlights



**FIG. 1**

Leak detection specialists were able to locate and repair several leaks in the pool, saving water, pool chemicals, and water heating energy.



**FIG. 2**

The new pool blanket (above and below) reduces evaporation losses of water and energy when the pool is unoccupied.



**FIG. 3**

Pool Blanket after Installation



**FIG. 4**

Locating and monitoring the irrigation system submeter has enabled the club to monitor irrigation water use and minimize future irrigation system leaks.



**FIG. 5**

All thermostats were replaced with smart Web based thermostats with integral occupancy sensors. These include online monitoring capabilities of outside temperature, indoor temperature, indoor setpoint, occupancy status, and operating schedules.