

## City of Ballwin

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Ballwin, MO 63011  
  
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**PROJECT COST** ..... \$3,975,326  
**TYPE** ..... Guaranteed Performance Contract  
**TERM** ..... 15 Year Term  
**GUARANTEED ANNUAL SAVINGS** ..... \$54,729 Energy / \$153,933 O & M



### Project Background

The Pointe community recreational facility opened in 1996 and features a state of the art fitness center, 1/8 mile indoor track, indoor pool with two-story water slide, a double gymnasium as well as indoor meeting rooms. The facility serves over 170,000 visitors each year. The eighteen year old prized community facility was at a point of needing updates to its infrastructure system to both reduce the cost of energy usage and operations and to improve comfort for the occupants.



### Positive Cashflow Solution

The City looked to CTS for options and to identify the best potential choices available to update the facility and reduce costs. After extensive analysis of the existing systems, CTS was able to develop an improvement plan which would bring needed updates to the facility and long term energy savings solutions. The following project scope will result in the City reducing their annual kWh usage by 53% from 166.01 kbtu/sq. ft. to 89 kbtu/sq. ft.:

- / Geothermal HVAC System: Replace aging/failing HVAC with a new system that captures heat from summer cooling to meet heating requirements. The system is very efficient and requires less maintenance.
- / Temperature Control Building Automation System: The web based system can be controlled remotely from any computer with internet capability. Automatic scheduling allows for conservation when the building is not occupied.
- / Energy Efficient Lighting Upgrades with LED lighting implementation.
- / Building Envelope Improvements: Eliminate outdoor air infiltration into building and reduce solar heat gain.
- / Pool Equipment Upgrades: Control upgrades to reduce energy consumption and chemical usage.
- / Roof Replacements: 30 year warranty white roof to reduce heat gain in the building, repair leaks in current system and increase output of solar array.
- / New Exterior Doors: For improved operation, safety and efficiency.



### Results

The Energy Conservation Measures are guaranteed to save the City over \$54,000 in annual energy savings. In addition to reduced utility consumption, the City will continue to have a high quality, comfortable and healthy indoor environment for the community to enjoy for years to come.