

Sustainable Facility & Energy Solutions

Aging Equipment & Infrastructure Improvements for
The City of Cleveland Heights

Energy Conservation Project Review



Presented by
Evans Energy

Cleveland Heights Project Objectives

- ▶ Reduce Energy and Maintenance Costs
- ▶ Apply Green Solutions
- ▶ Replace, Upgrade Aging Equipment
- ▶ Reduce Capital Improvements Cost
- ▶ Be Good Stewards of City Resources

City Wide Lighting Upgrades to LED

- ▶ 3,495 Interior Lamps to Energy Efficient LED



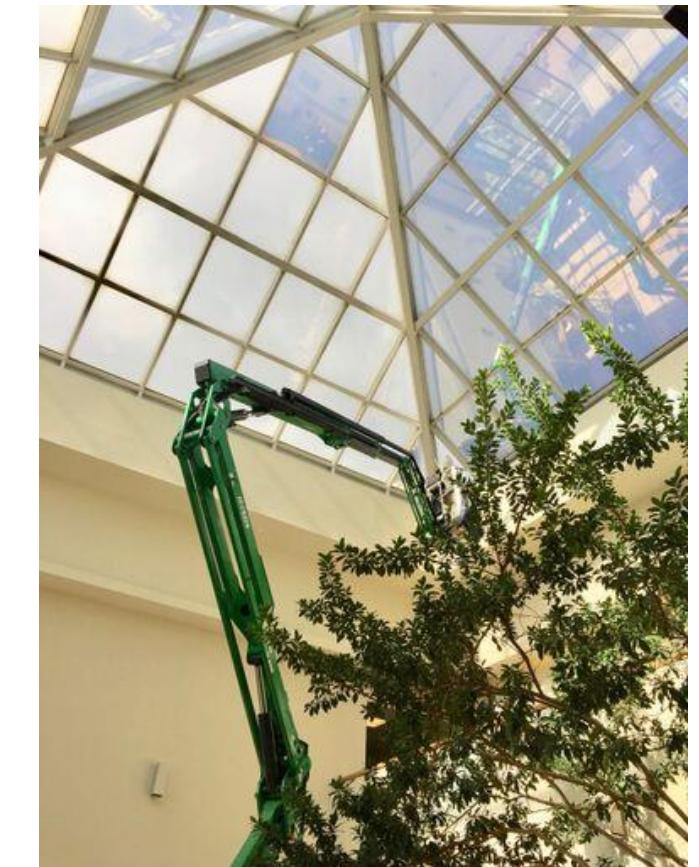
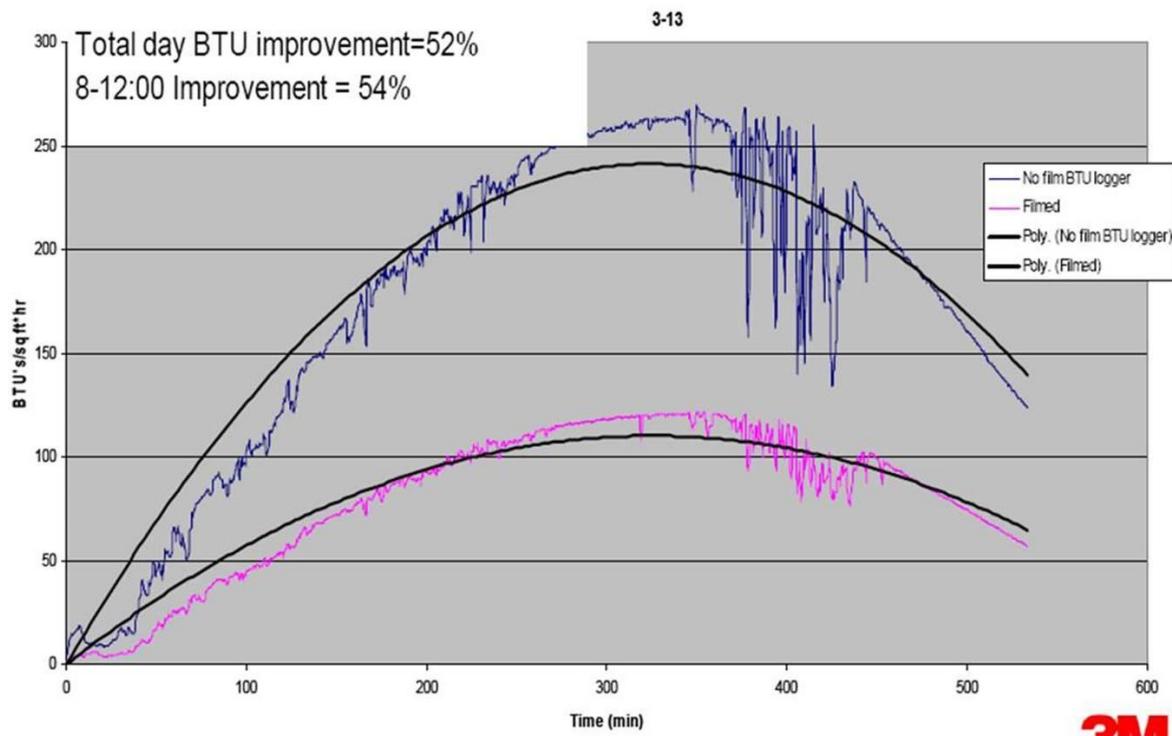
City Wide Lighting Upgrades to LED

- ▶ 1,661 Traffic Signals to Energy Efficient LED



Solar Window Film at City Hall

Window Film Energy Savings



Temperature Control Replacements

Thermostats dating back to the 1950's were replaced.

Thermostats and controls were replaced in 14 buildings.



Vintage Boilers Updated



North Rink Roof Replaced



South Rink Facade Repaired



1968 Ice Machine Replaced



800 Tons of Air Conditioning Upgraded

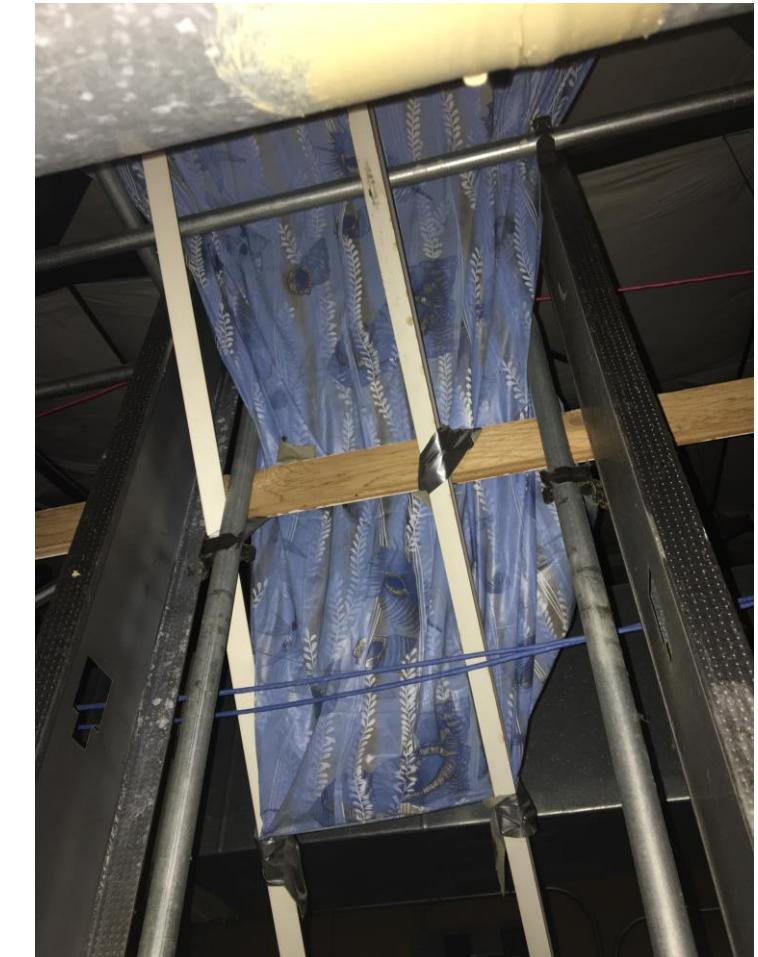
800 tons is equivalent to 320 homes



Weather Sealed Doors & Leaks

The blue material is a shower curtain to divert water leaking into the building.

Water damage to light fixtures & ceilings.



New Water Heaters Relocated

The original water heater was located above the gym floors. A past leak caused water damage to the area.



08/29/2016

High Maintenance Ice Maker Replaced

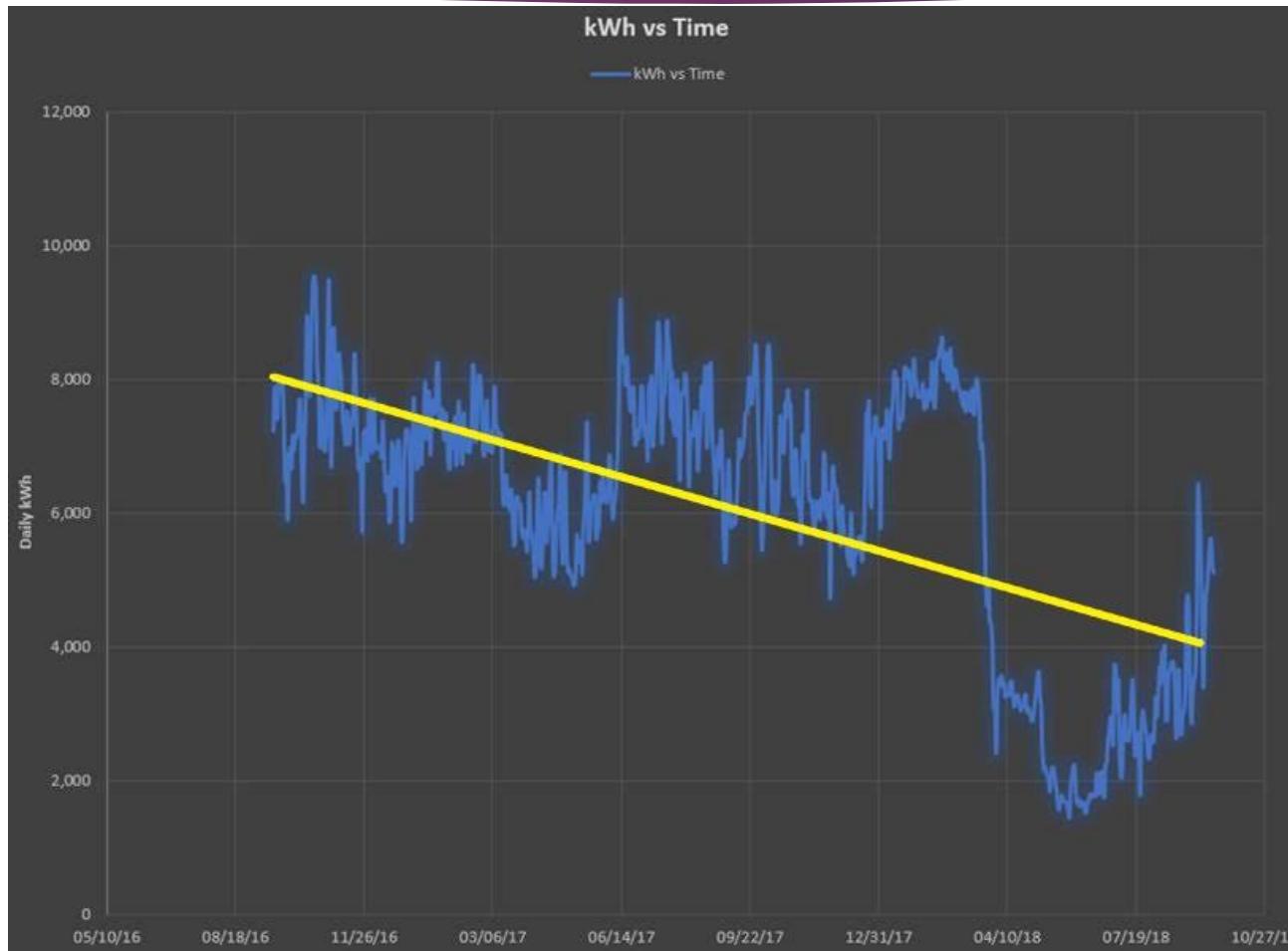
The repair cost on this machine was increasing every year.



North Rink Dehumidifier Failed



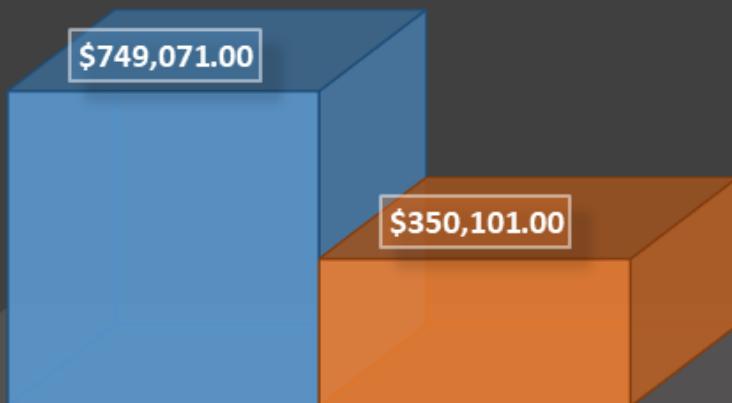
Electrical Usage Trending Downward



For Reference

CITY WIDE ENERGY IMPROVEMENTS

■ Baseline ■ Performance



ENVIRONMENTAL IMPACT OF ENERGY CONSERVATION MEASURES

2,822 Metric Tons of Carbon Emissions

Greenhouse Gas Emissions from 599
Passenger Vehicles Driven for One Year

Carbon Sequestered by 3,321 Acres of
U.S. Forest in One Year



Cleveland Heights “A Smart City”

