



Wauwatosa Fire Department Headquarters

Wauwatosa, Wisconsin

Project Information

Construction Cost: \$7.1 Million

Construction Size: 31,000 SF



Although not submitted officially to LEED, an initial point audit indicated that the building would achieve **LEED Silver Certification**.

Some of the **LEED and Sustainable Design** elements implemented for this project include:

- Reduce State Energy Code and ASHRAE 90.1 baseline energy usage by 22% using whole building simulation models. Harwood Engineering's standard is to be a minimum of 20% below baseline for all projects. Provide monitoring to maintain ventilation requirements and design to meet ASHRAE 55, Thermal Comfort Standards.
- 17% to 22% of all electrical power required, is generated onsite through Solar Photovoltaic (PV) power. This reduces the building footprint by 10 metric tons of CO₂ every year.
- Solar Panels utilized to generate hot water for the building, 528 therms of natural gas saved each year, a 25% reduction in energy use.
- Through the use of Daylight Harvesting Monitors and lighting controls, electrical use is reduced by 33% to 44% in the large Apparatus Bays.
- Electrical charging outlets were provided for electrical and hybrid vehicles.
- Rather than demolish (4) existing homes on the site and send materials to a landfill, Habitat For Humanity will be provided access first to reclaim useful materials for their projects and recycling center.
- 1.75 GPM showerheads are specified rather than 2.5 GPM
- Our Electrical Department applied for various grants and rebates with the utility company, WE Energies and the Focus On Energy of Wisconsin Program. This process successfully paid for 50% of the Solar Energy System and 75% of the Solar Hot Water System.

**The \$106,000 Solar System Received
Grants and Rebates of \$81,000**