

SISTER MARY ALICE MURPHY CENTER FOR HOPE

“Green” Building Facts

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a simple yet comprehensive measurement system that evaluates a building’s performance in five environmental categories and provides a definitive, internationally recognized standard for what constitutes a “Green” or High-Performance building.

The construction process can generate a great deal of waste/trash. This building has diverted nearly 92% tons of construction waste from the landfill and directed it toward recycling facilities.

Exposure to outdoor views and daylighting enhances the emotional well-being of a building’s occupants. Daylighting allows significant reduction of electric lighting, subsequently minimizing energy consumption, operational costs and utility production pollution. 86% of the spaces in this building have enough daylighting to perform most tasks without electric lighting, while 95% have views to the outside.

This building uses 50% less water than a baseline building designed to meet code. Through the use of Dual-Flush toilets and Low-Flow lavatories and urinals the building is able to achieve this exceptionally low water consumption. Landscape water reduction is 57%. This reduced consumption results in less money spent on water and less demand on local water infrastructure.

Several techniques were incorporated into the building to produce a highly efficient envelope. LowE glass with East, South and West facing sunshades and increased insulation in the roof and walls decrease the building’s energy consumption for heating in the winter as well as mitigate cooling requirements in the summer.

Occupancy sensors are installed in offices to turn lights off when no one is using the space. All Common Area lighting is controlled by a central panel that can automatically turn them off during non-business hours. Incorporating efficient lighting fixtures with controls and natural daylighting assists the building in achieving a significant reduction in energy consumption.

Air handling units supply the building with 100% outside air to cool the building when ambient temperatures allow. Outside air is mechanically supplied to the large spaces while the perimeter spaces receive natural ventilation through operable windows. This promotes the ability for individualized temperature and comfort control.

Carbon dioxide sensors are utilized to control the amount of ventilation (outside air) being brought into the building. High levels of carbon dioxide in the building can cause discomfort and poor indoor air quality. Carbon dioxide sensors will control the amount of outside air to mix with the fresh air correlating to the actual occupant count and needs of the space, while minimizing the energy required to condition the outside air.

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