# Green Renovations of Precinct #3

***Minneapolis, Minnesota***

## Estimated Annual Savings

- *42% reduction in $CO_2$ emissions (310 tons)*
- *300,000 kWh electricity*
- *2,500 MMBTU total energy*
- *More than $10,000*

The City of Minneapolis recently turned the challenge of an over-crowded police precinct into an opportunity to develop one of the community's most innovative green buildings.

Originally designed in 1986 for 200 police officers, Precinct #3 now hosts double that number of individuals. Demonstrating its commitment to green building standards, the City revised its original intent to erect a new building and chose instead to generate much needed space by renovating and adding on to an existing structure. In doing so, the City also seized an opportunity to improve the original building, including reworking its heating, cooling, and ventilation systems and addressing undesirable mold issues.

Completed in 2004, the Precinct #3 project includes a number of innovative sustainable design strategies:

- Re-use of an existing City-owned building,
- Comprehensive facility audit to determine inefficiencies,
- Strategic space planning for future growth/change,
- Comprehensive energy modeling and analysis,
- Construction waste management,
- Rain gardens/infiltration strips and sustainable landscaping,
- Recycled building materials, and
- Solar thermal "solar wall" technology.

The total project cost was $7.5 million, including land acquisition and environmental cleanup of the site. The project's anticipated return on investment is less than 7 years. This was the first project on which the City used comprehensive energy modeling to examine the energy use impacts of all systems. The resulting energy saving and other green features of Precinct #3 are projected to yield significant benefits, including:

- 39% reduction in annual energy cost,
- 35% reduction in peak load electricity demand,
- 46% reduction in total electricity consumption,
- 39% reduction in total energy consumption, and
- 42% reduction in both $SO_2$ and $NO_X$ emissions.

Energy modeling and analysis of the project was completed by the WeidtGroup and funded by Xcel Energy in partnership with the City of Minneapolis. Xcel contributed nearly $16,000 to offset additional costs of implementing energy conservation strategies in the building.