



CORDOVA CENTER PROJECT

ENERGY EFFICIENCY

- Key factor in the concept for the Cordova Center was to consolidate many inefficient facilities into one modern facility **promoting effective operation** and **decreasing the costs** of operating uneconomical buildings.
- To further **reduce future operating costs**, the design team carefully reviewed life-cycle costs of building systems, and recommended material quality to **minimize future maintenance costs**.
- The building design aggressively utilizes the **highest levels of insulation and energy efficiency**, adopting several cutting edge systems for minimized operation cost, such as displacement ventilation and innovative passive cooling using water reservoirs integrated in the building foundation space.
- The facility is registered and will seek **certification status at the Gold Level** with the U.S. Green Building Council through the Leadership in Energy and Environmental Design (LEED) rating system.

The **community supports** this new mixed-use facility because it provides the opportunity for cost effective operation, with shared resources, minimized building volume, and common centralized services.

Energy Comparisons: Existing Facilities versus Cordova Center

Space	Square Footage	Fuel*	Electricity*	Total	Cost/Sq. Ft.
Cordova Center	33,929	\$50K	\$58K	\$108K	\$3.18/sq.ft.
Current	10,634	\$41K	\$24K	\$65K	\$6.11/sq.ft.

*Fuel and Electricity costs current to 9/2008.

- The Cordova Center will assist in sustainability with the reduction of overhead expenditures.
- Reduction of duplication of services and administrative costs will improve efficiency and operations and assist in keeping expenses low.
- Lighting energy consumption will be much higher for the Center, a larger building with longer operating hours than either existing building. The new lighting will be much more efficient; there is simply much more of it.
- Heat energy will be much lower per sq.ft. even though the Center will be a healthier building with more ventilation than the existing buildings. The cost of better ventilation is more than offset by increased thermal performance of the envelope and more efficient ventilation systems that adjust ventilation with regular variations in occupant load.

An energy and life cycle analysis for the Cordova was conducted to predict annual energy costs and to evaluate and recommend energy conservation measures (ECMs) to provide a cost savings over the life of the building. The analysis is performed by Jim Rehfeldt, P.E. of Alaska Engineering & Energy Consultants, LLC as a subconsultant to the prime architectural firm of Minch Ritter Voelckers Architects.

*The term “green building” is synonymous with “high-performance building,” “sustainable design and construction.”
The green building process results in a high-quality product that maximizes the return on investment.*