

ARCHITECTURAL ENERGY
CORPORATION
Integrated Engineered Solutions

Alfred A. Arraj U.S. Courthouse

Denver, Colorado



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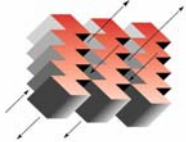
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Designated by the U.S. General Services Administration as a Sustainable Design Showcase, the Alfred A. Arraj United States Courthouse incorporates numerous energy efficiency and sustainable design features. The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating scheme was used as a guide to identify and select sustainable design strategies, including high performance glazings; aggressive daylighting of administrative offices, judges chambers, and public areas; direct/indirect evaporative cooling with underfloor air distribution; building integrated photovoltaics system; high efficiency electric lighting, advanced energy management and controls systems, and low environmental impact materials throughout the building.

The 130,000 square foot Courthouse is anticipated to achieve over a 40 percent savings in annual energy operating costs and to obtain a LEED® Certified rating.

Project Information: Alfred A. Arraj U.S. Courthouse

Project Type	United States Courthouse
Client / Design Team	<p><i>Architects:</i> Anderson Mason Dale Architects Denver, Colorado</p> <p>Hellmuth, Obata + Kassabaum St. Louis, Missouri</p> <p><i>Energy/Daylighting/Sustainable Design Consultant:</i> Architectural Energy Corporation Boulder, Colorado</p>
Size	318,850 gross ft ²
Location	Denver, Colorado
Cost	\$76 million
Year Constructed / Occupied	2000 / 2002
Sustainable Design Features	<p>High levels of energy conservation and efficiency in all building elements – wall and ceiling insulation, glazing, electric lighting, mechanical systems, controls, etc.</p> <p>Aggressive daylighting of all office space, Judges Chambers, public corridors and courtrooms.</p> <p>Direct/indirect evaporative cooling to eliminate need for CFC based mechanical cooling.</p> <p>Heat recovery on exhaust air.</p> <p>Underfloor air distribution system in Courtrooms, Clerk of the Court, and Marshall's offices.</p> <p>Building integrated photovoltaic system to supply electrical power to the building or utility electrical grid.</p> <p>Water conservation measures employed throughout to dramatically reduce water consumption.</p> <p>Material selection for reliability, durability, reduced life-cycle cost, and environmental sustainability.</p>



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