ERICKSEN ROED & ASSOCIATES

## Data Centers

**Federated Insurance Data Center Addition:**

The **Federated Insurance Data Center Addition** consists of an addition adjacent to Federated's existing South Campus facility in **Owatonna, MN**. The building is designed to house IT equipment on the upper floor and mechanical equipment on the lower floor. Additionally, and perhaps most uniquely, the building is engineered to withstand the forces of an F5 tornado. That is, up to 318 mile per hour winds. It also doubles as a storm shelter for employees, with all employees being able to reach the shelter within seven minutes. ERA utilized bigger wall panels, more connections and an unusual roofing system to create a structure strong enough to withstand such winds. Construction is scheduled for completion in 2013.

**Ameriprise Financial :**

**The American Express Operations Center**, formally known as the I.D.S. Operations Center, located in **Minneapolis, MN**, serves the financial arm of American Express. It is one of the largest Data Centers in the United States and features an Electric Power System that is redundant (2 times or N+2) therefore avoiding any possible loss of power. Within the total building footprint of 512,000 square feet, is a "Black-box" dedicated Computer Operations Center of 250,000 sq. ft. The "Black-box" has shielding built into the Data Center perimeter to avoid radio frequency interference with computer operations. A combination of cast-in-place concrete and composite steel construction satisfies the needs for both economy and security. The first floor has an automated storage and retrieval system, utilized in the handling of the financial records.

Although the building has only six floors above the ground, it has extremely tall floor to floor heights to allow for the computer operations as well as an automated guided vehicle storage system on the ground floor. In reality, the building is comparable to a typical ten-story office building. Below this city block-sized structure are two levels of underground parking.

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**Badger Data Center:**

The **Badger Data Center** in **Marshfield, WI** consists of a new stand alone 15,750 square foot (105' by 150') Data Center with an attached 3,050 square foot (55' by 60') office area. The center portion of the Data Center includes a mechanical mezzanine level. The program includes two equipment rooms with the associated support areas including UPS rooms, battery rooms, a command center, service rooms, emergency generators, and a mechanical mezzanine. There is also an exterior equipment area including generators, transformers and evaporation coolers. The exterior façade for the Data Center is pre-cast concrete wall panels and the exterior façade for the office portion of the building consists of a combination of brick, glass, and metal panels.

## Other Data Centers

- Best Buy Data Center, Bloomington, Minnesota
  Conversion of an existing warehouse building into a data center
  Precast wall system with a steel construction roof

- Fairview Data Center ; Minneapolis, Minnesota
  A 25,000 square foot addition to an existing building to be used as a data center
  Precast Construction

- Unisys NADC, Eagan, Minnesota
  Conversion of an existing basement level of the Eagan Facility into a Data Center

- University of Minnesota Data Center - Preliminary Design; Minneapolis, MN
  Design for the conversion of an existing warehouse into a Data Center

- On-Track Data Center Study; Brooklyn Park, Minnesota
  Study of two existing buildings for conversion to Data Centers

- Thompson Legal and Regulatory
  Building E Addition: 17,000 square feet of cast-in-place and composite steel construction
  Building F Addition: 18,000 square feet of cast-in-place and composite steel construction

- American Express (Formerly IDS); Minneapolis, Minnesota
  A 500,000 square foot Office Building including a 200,000 square foot Data Center

- Boston Scientific Weaver Lake III Data Center, Maple Grove, Minnesota
  New 8,000 square feet data center building on the Maple Grove Campus
  Precast wall system with a steel construction roof