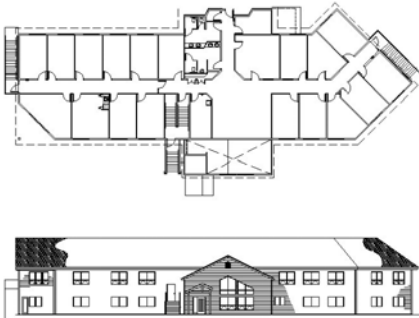




Behavior Management Systems Addition



This design-build project involved a 13,500 square-foot 2-story addition to the Behavior Management Center located in Rapid City, South Dakota.

The lower level of the addition is composed of a bedroom area, kitchen area, dining facility, group therapy area, laundry area, offices, and surrounding support space. The main level addition will be composed of office and support space

Project Data

Location

Rapid City, South Dakota

Building Type

Health Care

Building Area

13,500 square feet (Addition)

Mechanical Systems / Features

Split System Heating/Cooling
Underfloor Ductwork
Energy Recovery Ventilation
Fire Sprinkler

Electrical Systems / Features

Security/Access
Data/Communications
Fire Alarm
Interior/Exterior Lighting

Completion Date

Scheduled for November 2003

Architect

Lund Associates, Ltd.
www.lundltd.com

Contractor

Glenn Barber Associates
www.gbaconstruction.com

Mechanical Engineering

Space cooling and heating needs are served through the use of a split system air conditioning system. The system includes nine high efficiency natural gas-fired furnaces with DX cooling. Spatial requirements dictated the uses of underfloor ductwork to serve the lower level.

Two air-to-air energy recovery ventilators are used to supply outdoor air to the furnaces conditioned with exhaust air from the restrooms, toilets and shower rooms.

The addition includes a light hazard sprinkler system and a new water service was provided. Domestic hot water for this facility is provided through a high efficiency water heater.

Electrical Engineering

A new electrical service was installed in the lower level of the addition and the existing service was sub-fed from the new service. A 35 KW dual fuel generator was installed to replace the aging battery inverter system for life-safety lighting and sized to back-up critical data systems.

An addressable fire alarm system was designed for the new addition. The extension of a new addressable fire alarm system is being designed for the next phase of remodel to the existing facility.

The existing security/access system will be extended throughout the new addition.