



Sylvan Lake Lodge



Sylvan Lake Lodge, owned by the State of South Dakota and operated by Custer State Park Resort Company, was remodeled between October of 2002 and April 2003. The design team and the contractor had to be very aware of the operator's schedule and make every effort to ensure the building was ready for the arrival of the first guests of the 2003 season.

Project Data

Location

Custer State Park, South Dakota

Building Type

Historic Renovation

Building Area

9,400 square feet (24-Room Lodge)
1,200 square feet (Lounge)
1,800 square feet (Dining Room)

Mechanical Systems / Features

HVAC System Retrofit
Air-to-Air Heat Pumps
Air Conditioning
Replaced Domestic Hot Water
Removal of Steam Heating System

Electrical Systems / Features

Underground Utility Entrance
Historical Style Guest Room
Corridor Light Fixtures
(Compact Fluorescent)

Completion Date

April 2003

Architect

Baffuto Architecturra
bbaffuto@aol.com

Mechanical Engineering

The project entailed renovation of a historic 1930's lodge containing 24 rooms, lounge and dining room. Renovations included removal of a steam heating system and replacing it with new heating and air conditioning systems for the hotel, lounge, and dining room and a new domestic hot water system.

Engineering challenges included routing of conduit, piping, and ductwork through the building without disturbing aging, delicate finishes that would be impossible to repair or replicate.

Electrical Engineering

The project included a complete replacement of the electrical service with a new 1200 Amp, 120/208 Volt, 3 Phase sized to handle all of the guest room air conditioning. The new electrical service was brought in underground through rock and terminated at the power company transformer. Other overhead utilities such as Telephone and Cable TV were replaced with underground entrances, vastly improving the scenic vista from the outdoor patio.

The guest room corridor lighting was replaced with new energy saving period style light fixtures using compact fluorescent lamps.

Guest room wiring was modified to conform to the latest National Electrical Code and the guest room baths now have individual grounded receptacle circuits per code.