Lakewood Health System’s new 25-bed hospital and outpatient clinic under construction east of Staples will be a state-of-the-art building designed to meet the needs of patients and staff. It includes a number of energy efficiency measures to control operating costs.

Tim Rice, President of Lakewood Health System, talked about the new hospital during an on-site tour on October 14, 2005. Rice was joined by Wade Cole, construction manager for the project.

The architecture firm that created the design for the building was BWBR Architects of St Paul, and the construction management firm is 3D/I of Minneapolis.

The building sits on a 60-acre property purchased by Lakewood. Forty acres are used for the building, parking lots, access roads, and landscaping. The remaining twenty acres are a wetland with two small lakes.

The interior structure of the 150,000 square foot building is formed from steel and concrete. Virtually no wood was used. The outside will be finished in stone and brick. Minnesota and Wisconsin stone and brick are being used for the building exterior, reducing transportation costs for material delivery.

The building has a dual-fuel system of natural gas boilers with heating oil backup. A computerized energy management system controls the heating, air conditioning, and ventilation for the entire facility. According to BWBR Architects Stephanie McDaniel and Jenifer Jirele, variable air volume boxes are being provided that automatically cycle back to minimum required airflows when the rooms are unoccupied. Automated night setbacks and temperature adjustments are built in. Variable frequency drives on air-handling units will control building airflow according to room usage. Premium efficiency motors are being used for all applications.

The lighting of rooms and hallways will be controlled by occupancy sensors in certain parts of the building. High efficiency fluorescent bulbs will be installed for lighting.

BWBR architects Stephanie McDaniel and Jenifer Jirele indicated in 2004 that recycled content in interior materials will be used whenever possible, including carpet backing, ceiling tiles, and cubicle curtains. High performance glass windows will reduce heat transfer and increase light.

Commenting on the building site and orientation, Lakeview President Tim Rice said, “The building was designed around the wetlands on the property. We made a conscious decision not to disturb any wetlands.”

Construction Manager Wade Cole said, “All the rainwater and snowmelt will drain around the north and south and east of the building into holding ponds on the west side. The ponds filter the water and they drain into the wetlands. This is called a ‘rain garden,’ and it’s designed to control water runoff.”

State-mandated low-flow water fixtures will be used to reduce water usage to the lowest sustainable level. The City of Staples is providing water and sewer service to the new facility, located two miles east of the main part of the City.
Patients and visitors will enter the new $42 million hospital and clinic building on the east side on the middle or main floor of the three floors. They will be directed to their destination on one of the three floors, or to a waiting area on the west side of the building that offers a breathtaking view of the wetland from enormous windows. All the patient rooms on the hospital’s third floor have the same beautiful west views from their windows, as does the dining area on the lower level.

Each of the three floors has multiple functions. The lower level will house the mechanical systems, maintenance department, housekeeping, administration, kitchen, dietary service, cafeteria and dining area, pharmacy, and meeting rooms. The two-story atrium dining area can be reached by an open staircase as well as by elevator. A large stone fireplace fueled by natural gas will make the dining area feel cozy.

The main level will have the main and emergency entrances, reception area, x-ray and laboratory areas, outpatient clinic services, outpatient surgical suites, doctors’ offices, examination rooms, and waiting rooms. Outside the main level will be a helipad and mobile imaging truck.

The upper level will have the inpatient rooms, surgery suites, lab and x-ray services, birthing rooms, private waiting and recovery rooms, coronary care unit, nursing support and administrative areas. All 25 patient rooms are private rooms, but they are the same size as double rooms so that the hospital can expand to 40 or more beds. The new facility is licensed for 40 beds, the same as the existing hospital.

When the new hospital building is completed and opened in the fall of 2006, remodeling of the existing hospital will begin. Some functions will remain in the old building, such as information services, the business office, dialysis service, laundry service, and senior services. The senior services area will be expanded and will include a dementia wing, adult day care, and other functions.

“We’ve achieved a lot of efficiencies by building new,” said Rice. “We were able to use a cluster model for doctors’ offices and exam rooms that lets our staff serve patients with the greatest possible efficiency. When we decided to go ahead with the project, we brought in our architect and our construction managers right away. They have worked with us from day one.”

(Information for this article was gathered during a tour of the facility conducted by Tim Rice and Wade Cole on October 14, 2005, and during a telephone interview and fax communication with Stephanie McDaniel and Jenifer Jirele of BWBR Architects in September 2004.)