Since November 22, 1963, when President John F. Kennedy arrived at Trauma Room 1, Parkland Memorial Hospital has occupied a prominent position in the American health-care landscape.

Today, after an expansion that nearly doubled the hospital’s original size to 2.8 million square feet, Parkland looms even larger.

The new Parkland is not only big. To meet the changing needs of one of the nation’s fastest growing regions, it also incorporates the most advanced thinking in health-care facilities planning.

“New Parkland boasts innovative patient-centered healing concepts incorporating the latest research into the design,” explains Walter Jones, senior vice president of Facilities Planning and Development at Parkland. “After researching global trends we found that encouraging a connection to the outside world created a healing environment,” Jones said, noting that hospitals with better environments have improved patient recovery times.

Natural light plays an integral role in the hospital’s integrated, patient-centered design. Featuring 10 acres of glass, each of the building’s 862 single-patient rooms has its own large window, and many of the treatment areas throughout the hospital include some measure of daylighting as well, in order to promote the healing process.

Light wells, for example, were added to the roof of the Neonatal Intensive Care Unit (NNICU) to bring daylight to even the hospital’s tiniest patients, and an adjacent ICU tower was designed with an offset to create daylight access at the NNICU perimeter.

Daylight is a dynamic resource, however. So to optimize the influx of light and heat at the window wall, Parkland utilizes the automated SolarTrac System. SolarTrac is an intelligent control system that makes automatic, incremental adjustments to motorized window coverings, including roller shades and louvered blinds.

By applying the science of the sun’s behavior to the unique location and orientation of Parkland Hospital, SolarTrac calculates the depth of daylight penetration into the space and the heat load on the glazing—and manages it based on established thresholds—for every minute of every day.

At the same time, SolarTrac conducts a comprehensive real-time SolarEvaluation® of changing sky conditions. It continually compares data collected by full-spectrum solar radiometers mounted on the roof against ASHRAE clear sky radiation values, and adjusts the roller shades based on any detected differences between current and clear sky radiation conditions.
Parkland Memorial Hospital

Dallas, Texas

Predictive formulas and a dynamic, real-time response to changing conditions ensures visual and thermal comfort at all times. A key benefit of the system is that it maximizes the amount of usable daylight and views, keeping the visual plane open as much as possible, an experience that correlates positively with reduced medication intake, shorter recovery times, and an overall improvement in health outcomes.

Architect
HDR+Corgan, a joint venture

Program Control Manager
Critigen

Construction Manager
BARA, a four-way joint venture of firms Balfour Beatty, Austin Commercial, H.J. Russell, and Azteca Enterprise.

Certifications
Two LEED® Gold Certifications for hospital and parking garage buildings