The project includes a new $2B, 825,000 square foot replacement hospital on the Stanford University campus.

The new seven-story state-of-the-art Level 1 trauma center includes 368 patient rooms, 20 operating suites, imaging and radiology suites, and an emergency department.

Patient rooms are located within four towers and are all private with large, floor-to-ceiling windows overlooking the surrounding campus and foothills.

The structural system consists of a base-isolated steel moment frame which is designed for Functional Recovery performance following a major seismic event. The incorporation of base isolation substantially reduces the amount of earthquake energy imparted on the building resulting in no expected structural damage in the largest credible earthquake.

Over 1/3 of the overall floor area for the project is cantilevered.

The engineering challenges for this project were abundant including the incorporation of seismic isolation, and providing support for significant cantilevers, long spans, a 120ft diameter column-free atrium space, MRI suites on elevated floors, a four acre landscaped terrace and a base isolated skybridge.

A pedestrian skyway connects the new hospital to the existing hospital. A first-of-its-kind structural system was utilized to allow the skyway to be physically supported by both the isolated and fixed base hospital structures. The base-isolated bridge incorporates a three-pinned arch-like structure to accommodate the relative movement of the two hospitals.

The dramatic 120ft atrium dome was designed as a thin lens of small diameter welded steel tubes that rises only 12ft at the center, creating a remarkable, light-filled space.