

The Johns Hopkins Hospital, Bloomberg Children's Center and Sheikh Zayed Tower

Baltimore, Maryland

Owner

The Johns Hopkins Hospital

Architect

Perkins + Will

Construction Manager

Clark/Banks

Completion Date

2012

Construction Cost

\$1.1 billion

Total Area

1,600,000 sf

Private Inpatient Rooms

Pediatric Care: 205

Adult Care: 355

Awards

Excellence in Structural Engineering
Merit Award, New Buildings Over \$50
Million, Structural Engineers
Association of Metropolitan
Washington, 2010



Thornton Tomasetti performed structural design for a 1.6-million-square-foot hospital consisting of two twelve-story sections: a pediatric care center and an adult care tower. The two programs were combined into a single structure to increase design and construction efficiency. The first eight floors and three basement levels form a shared base that houses pediatric and adult emergency departments, operating suites and support facilities such as shops and a food court. To maximize utilization of a tight site, portions of the structure cantilever over roadways and existing campus structures.

The children's center comprises emergency, surgical, interventional, critical and acute care departments for infants and children. Also included is a two-story indoor play area for patients that includes a basketball court. The adult care tower's 355 rooms provide acute care and intensive care units as well as 35 obstetrics rooms. The new hospital also offers 33 operating rooms, radiologic imaging suites, oncology treatment facilities and psychiatric care units. It also houses the Johns Hopkins Heart and Vascular Institute.

To meet the project's many engineering challenges – among them the need for structural systems to respond to the program needs of multiple user groups, heavy loads and strict vibration control required by sensitive medical equipment, and coordination with intricate MEP systems – our team collaborated closely with all design team members. During construction we increased our on-site presence in order to quickly evaluate and resolve owner and contractor questions and we worked closely with the steel detailer and connection designer to expedite shop drawing reviews. This proactive construction phase role provided significant benefits to project costs and schedule.

