

## 2016 AIA OHIO DESIGN AWARDS PROGRAM

### **Description Page**

*Each submission must include a concise description of the project; a statement of the problem; a description of the site and environs; and the design intentions and distinguishing factors of the work on a separate sheet. The description should focus on how the project successfully responds to one or more of AIA's 10 Principles of Livable Communities.*

The University of Toledo had a vision to create a transformative program for interprofessional education of healthcare professionals and students in environments that recreate various interactive clinical settings using the latest in 3D virtual technology. This new paradigm would stimulate opportunities for partnerships, as well as research and development. Once the program was created, the University needed a facility to house this program. Our firm was chosen to help bring the vision of such a facility into reality—and in the spring of 2014, the Interprofessional Immersive Simulation Center (IISC) opened its doors on the University's Medical/Health Sciences Campus.

### **Site and Environs (Creating a Neighborhood/Campus Identity)**

The IISC - a 4-story, 65,000 square foot building – was designed to fit within the existing context of the Health Sciences Campus, defining and framing it's eastern edge and creating a new presence and landmark for the campus. As an addition to the existing Center for Creative Education (CCE), special attention had to be paid to create a seamless architectural transition from existing to new. Additionally, it was important to the University to maintain the same architectural features of surrounding buildings such as limestone, sunscreens and metal panels so as to balance the look and feel of the campus.

The building not only contributes to the physical identity of the campus, but it also gives root to the social and vocational identity of the medical community in the Toledo area and beyond. The IISC provides transformative educational opportunities for students from all UT Colleges, opportunities for Medical Center residents and staff, other Toledo community hospitals, EMT training, and it will host surgeons from across the United States and around the world. Additionally, the IISC has attracted a number of collaborative relationships both in the local community and globally, as well as with the U.S. military and other health-care organizations. The “interprofessional” aspect of the center helps set it apart from other simulation centers.

### **Design Intentions & Distinguishing Factors (Design Matters)**

The design of the IISC features a unique tri-center concept for medical simulation. A 3D/Virtual Immersive Reality (VIR) Center includes several 3D/VIR CAD Walls, including a large curved 3D CAD wall, and the world's first 5-sided, seamless LED virtual reality cave. A holographic theater is also planned for installation in the near future. The Advanced Clinical Simulation Center (also referred to as the Elliptical Hospital) features a virtual hospital equipped with human patient simulators, state-of-the-art clinical equipment, circular control room, and debriefing rooms. Finally, the Progressive Anatomy and Surgical Skills Center contains several surgical and advanced procedural skills training suites as well as fresh tissue and gross anatomy labs.

The new facility also includes a dramatic three-story sky-lit atrium, which serves as a welcoming space to greet and inspire visitors from all parts of the world. A medical education gallery adjacent to the atrium tells the story of the advancements in human medicine throughout the history of the institution. Generously proportioned corridors on the south side of the IISC provide naturally lit, informal collaboration space for students and faculty, as well as dynamic views of the campus and surrounding community. The IISC also includes inter-professional collaboration suites, global learning suites, innovation labs, and administrative offices.

A facility such as the IISC, designed to successfully meet the needs and desires of its users, provides the best possible education and training so that patients in the community receive the high quality, safe, and cost-effective care. Not only are medical professionals receiving quality education, but the surrounding community is benefiting from the training associated with this exceptional facility.

### **Sustainability (Protecting Environmental Resources)**

Submitted for LEED Gold Certification, the IISC was designed to optimize energy performance including the use of LED lighting and maximizing the orientation of sun exposure and natural light. Special care had to be taken to coordinate the building's design with an existing creek to preserve the flow of the watershed. In order to minimize soil erosion, silt fencing was installed along the ravine and storm inlet filters were implemented as part of the overall storm water pollution prevention plan. Storm water runoff is collected in a large, underground tank and is used for immediate irrigation of the surrounding vegetation. Alternative transportation provisions such as bicycle racks, changing rooms, a public transportation stop, and a designation/identification of 5% of project parking for fuel-efficient automobiles were incorporated into the project to **provide various environmentally-friendly transportation options.**