

# Healing Power

Layton Construction helps build Kapiolani Medical Center's new neonatal and pediatric unit

Layton Construction's medical expertise has never been a secret. The Utah-based company's recent healthcare projects include the San Antonio University Hospital Medical Center and the University of Utah Hospital—both 1 million square feet or more.

So in 2012, when Kapiolani Medical Center for Women & Children decided to build a new hospital tower, Layton's Hawaii team and dck pacific were likely providers.

"Layton Construction brought healthcare construction expertise, and dck brought local construction expertise and experience with Kapiolani Medical Center," says Kevin Charves, Layton construction manager, adding that in 2011, Layton Construction Co. LLC and dck Pacific Construction formed a joint venture partnership to pursue Pacific island projects.



Kevin Charves





KMC's new Pediatric Care Center  
PHOTO COURTESY LAYTON CONSTRUCTION

## CONCEPT TO COMPLETION

“Layton Construction has a wealth of experience in healthcare construction, and this was very important to us as a medical facility that operates 24 hours a day, seven days a week,” says Martha Smith, the CEO at Kapiolani Medical Center for Women & Children.



Martha Smith

In May 2012 the LCC/dck Joint Venture was awarded the \$150 million contract to build Kapiolani’s Neonatal Intensive Care and Pediatric Intensive Care Unit, and “we immediately engaged in preconstruction services for the project,” Charves says.

It was an uplifting task. “Kapiolani is in the midst of a multi-year renovation and expansion plan,” says



Demo of existing garage

PHOTO COURTESY KAPIOLANI MEDICAL CENTER FOR WOMEN & CHILDREN

families, and space to train Hawaii’s future medical professionals right here at home.”

With little more than a year before site work began, LCC/dck JV management formed preconstruction and construction teams and diligently

Layton’s standard operating procedure.

“We presented phasing plans months ahead of time and received feedback, made modifications and then presented the plan again. We met with numerous hospital department heads, facilities directors, security directors, parking managers ... as part of the continual process of communication,” he says.

In July 2013, construction began. “Phase 1 involved demolishing an existing parking structure and relocating existing utilities on the east side of the project site,” says Charves. “Phase 2 involved constructing a 200,000-square-foot building in place of the old parking garage.”

The site, says Smith, “presented some notable challenges.”

**“At the heart of this effort is the creation of space—space for families to stay with loved ones...”—Martha Smith**

Smith. “At the heart of this effort is the creation of space—space for families to stay with their loved ones when they’re under our care, space to accommodate state-of-the-art equipment to best serve our patients and

sought client input. “Communication with Kapiolani started early with the preconstruction phase and continues to this day,” Charves says, adding that advance planning and daily communication with healthcare clients is



Kapiolani Medical Center new tower jobsite

PHOTO COURTESY RYAN SIPHERS PHOTOGRAPHY/HAIKU HAWAII



KMC'S NEW COMPLETED FACILITY

PHOTO COURTESY KAPIOLANI MEDICAL CENTER FOR WOMEN & CHILDREN

Charves says the new tower is sandwiched between the existing hospital on the west, the new parking garage on the east, a one-way street on the north and Central Union church and preschool on the south. “There was no place for any laydown of materials, so everything had to come in on an as-needed basis,” he says. “The only place we could fit the tower crane was right off the one-way street’s sidewalk.” The

Inside, says Smith, “larger, private intensive care rooms are equipped with the latest technology and promote family-centered care by allowing parents and caregivers to stay overnight. Research shows that patients heal better and faster when families are involved in their care.”

Charves says new technology in all patient rooms include modular headwalls containing controls for all gases,

Phase 3, says Charves, involves “demolishing the Bingham Building and constructing a new patient drop-off area with a canopy, new sidewalks, site concrete and landscape areas that create a healing garden environment.”

On July 1, the new Kapiolani Medical Center Neonatal Intensive Care and Pediatric Intensive Care Building was complete.

“The NICU/PICU Project was the anchor building of Kapiolani’s master plan for their campus, and provides them future capacity to be built out for numerous services,” Charves says. “The final drop-off canopy and site improvement phase was slated to be completed in November.

“We think the modern facility providing private patient rooms which will allow Kapiolani Medical Center to improve upon the stellar patient care record they already had is the project’s standout feature,” says Charves. “Secondly, the beautiful building sitting above the H1 freeway stands as a beacon of hope and advancement as Kapiolani Medical Center/Hawaii Pacific Health continues to be a leader in healthcare delivery.”

Says Smith: “Kapiolani’s mission is to create a healthier Hawaii. We needed to continue to operate during construction, and (Layton) understood the unique challenges that we would face and how to address them in order for us to maintain operations.” 🏠

**“The building was designed and built to have three stories added on top in the future.” —Kevin Charves**

site team unloaded from the road, he says, and provided a covered walkway and valet parking to help shield vehicle and pedestrian traffic.

The new tower, made of structural steel, is five stories above grade with a below-grade basement level and rooftop penthouses for elevators, stairs and mechanical equipment.

The new structure is ingenious inside and out. “This project utilized a lateral bracing system, called ‘side plate construction,’ which is newer to the industry and may be the first time it was used on Oahu,” says Charves. “The building was designed and built to have three stories added on top in the future.”

power, communication, bed, nurse call and other patient monitoring systems. “The headwalls allow flexibility so the services needed by each patient can be customized for their needs” and can be adapted to future technological changes, he says.

The new Diamond Head Tower also includes a new conference, meeting, education and training center. “The centerpiece of the center is a state-of-the-art, 1,600-square-foot auditorium that features a 7-foot by 12-foot video wall display for presentations,” says Smith. A new employee fitness center, she adds, is nearby.

Smith says the project required three existing buildings to be demolished.