

surface & panel

UNITING MATERIALS, TECHNOLOGY AND DESIGN

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DESIGNED FOR QUALITY CARE

HOT ON THE MARKET

LEAN IT AND MEAN IT

A WELL-CRAFTED CONNECTION

SURFACE DESIGN GUIDE 2011

TO LED OR NOT TO LED?

BUILT TO LAST

HIGH QUALITY FOR HIGH SECURITY

A photograph of a modern hospital room. In the foreground, a dark wood desk with a white top is partially visible. Behind it, a teal privacy screen hangs from a metal frame. To the right, a tan upholstered chair is positioned near a window with horizontal blinds. The floor is covered in a colorful geometric tile pattern. The text "Designed for Quality Care" is overlaid on the image in a white script and gold block font.

Designed
for Quality Care

BY SUZANNE VANGILDER

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healthcare design requires a special blend of aesthetics, performance and empathy. The architects and designers at IKM Incorporated, located in Pittsburgh, PA use these concepts to develop customized healthcare spaces. Pittsburgh has the oldest demographic in the United States outside of Dade County Florida, and with it a correspondingly robust healthcare/ senior care system. These market segments account for 85 percent of IKM's work. "As architects we feel we have the ability to improve healing and affect the quality of treatment," says Matt Hansen, Architect and Project Manager for IKM. "We believe that if given the opportunity we can be an asset to nurses and physicians and help them to do their job in a more efficient way." IKM blends traditional, transitional and contemporary materials and colors to create specialized spaces. They also rely on established relationships with fabricators and suppliers to complete projects within the healthcare industry's uncompromising timelines.

IKM was recently retained to conduct a review and analysis of each of the 13 West Penn Allegheny Oncology Network (WPAON) sites for compliance and aesthetic upgrade. A closer look at three of the medical suites designated to administer chemotherapy treatment is an interesting exploration of how projects that adhere to the same technical criteria can look completely different from one another. Hansen and his team took advantage of the aesthetic possibilities of engineered materials to create unique spaces that reflect the preferences of the caregivers at each location. Because each suite starts with different parameters, from a subterranean space with no natural light to a space with large south-facing windows, surface finishes and lighting strategy played important roles in creating spaces that have the spa-like feel patients and their families have come to expect.



"As architects we feel we have the ability to improve healing and affect the quality of treatment."

MATT HANSEN, ARCHITECT AND PROJECT MANAGER FOR IKM.



HEALTHCARE ENVIRONMENTS DESIGNED WITH THE SAME PERFORMANCE CRITERIA CAN LOOK VERY DIFFERENT AESTHETICALLY DUE TO THE VAST POSSIBILITIES OF ENGINEERED MATERIALS.

COMFORT

The process of creating functional healthcare spaces begins with understanding the specific needs of the client. Hansen's team met extensively with the ultimate end-users of the spaces, the WPAON staff, to learn how to best serve patients and practitioners. These stakeholders informed the spatial layout for maximum efficiency and were pivotal in the finish selection process. "Our goal was to make as comfortable an environment as possible throughout, from the waiting rooms, to the infusion rooms and into the staff spaces. We wanted all those experiences to be soft and welcoming and warm," says Hansen. However, comfort is often associated with familiar things, such as wood finishes and water features, which are not practical for medical settings. "The question becomes, do you completely avoid those things, put down VTC and call it a day? Or do you start looking for high performance products that either simulate natural elements or provide the same abstract tonal qualities?" asks Hansen. For IKM, the choice is clear. Comfort through innovative material specification drives design. The corresponding case studies for the Jefferson, Mellon Pavilion and New Castle locations look at the unique design solutions IKM developed using engineered materials and light.

CARE

Patient comfort is only one component of a functional clinic. Creating a space that is pleasant for the staff is also important. "Quality of care is impacted by how care providers are feeling," says Hansen. Each medical space designed by IKM is unique because it reflects the needs and personalities of the people who work there. When staff is included in the finish selection process, not only do they feel more at home in the environment, but patients feel the space is more personal, and the treatments more humane.

CONTINUED ON PAGE 10 >

Riken USA Corporation



Riken USA Corp. produces foils for 3D laminates for seamless cabinet doors, office furniture and store fixtures using Japanese printing technology. For eco-conscious projects, its Rivestar 3DL foil is PVC-free and offers superior UV-resistance and lot-to-lot consistency. Vacuum and membrane press the most complex dimensional profiles on routed substrates in solid colors, patterns and woodgrains with satin, matte, desktop and contemporary high-gloss finishes.

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At the WPAON Jefferson location the infusion room and nurses' station are located in the back of the 5000 square-foot semi-subterranean suite. "The nursing staff for this location gravitated toward the familiar warmth of cherry wood. It is something people are comfortable with. They have it at home," says Hansen. "At the same time, wood does not work in a medical environment. We don't want porous materials that support bacterial growth. The challenge is to find a material that meets the requirements for comfort, but also performs in a technical way in terms of cleanability and durability." The solution was to specify Wilsonart HPL with the premium AEON™ finish, which adds to the product's durability and scratch resistance.

Natural light is a component that IKM includes in their spaces whenever possible, but there are no windows in the back portion of the suite where the infusion room is located. "We started looking at different ways to achieve ambient lighting that could almost simulate the warmth of daylight," says Hansen. IKM used contoured panels by Modular Arts framed with HPL to create light features. "It is subtle, not decorative like a mural," says Hansen. "It is more sculptural, more architectural." Continuous LED lights tucked behind the wall panels wash down the face the contoured surfaces, creating an abstraction of daylight behind window treatments. "Lighting is key in showcasing the beauty of the materials," says Hansen. Bulkheads finished in HPL and edged with aluminum reveals house overhead compact fluorescent lighting fixtures that provide task lighting for the nursing staff.

3Form resin panels are used extensively in the front reception area as a means of creating spatial separation from the main corridors of the building. That aesthetic is carried over as accent work on the front of the casework in the reception area and for the nurses' station. ■



Patients receiving chemotherapy are often self-conscious, so waiting areas are separated from the common corridors of the buildings either by solid walls or decorative panels. Conversely, the infusion room is set up for easy access and close proximity. "Although AIA guidelines dictate the spacing between the seats and mandate that there must be privacy available, we received patient feedback that there is a social component to treatment. Most appointments are regularly scheduled, and people form relationships while going through chemotherapy together," says Hansen.

"We pay as much attention to the staff spaces as the waiting room, reception and treatment areas," says Hansen. "It is a different initiative, but we practice it at IKM because it has a positive effect on everyone who uses the space," says Hansen. Despite the differences in building envelopes and aesthetic finishes, all three WPAON locations are based on AIA guidelines and common sense. "The first thing we always look at is the efficiency of the floor plan," says Hansen. "We try to reduce the amount of steps that nurses and clinicians are taking on a daily basis. If we can reduce the fatigue and physical stress to their bodies, that is going to increase the level of care for the patient. That is evidence-based design supported by many studies."

CONFIDENCE

The IKM team designs comfortable space and chooses materials that look good and can perform in demanding healthcare environments, but they rely on trusted fabricators to procure materials, build the pieces and install the finished products. Caseworks Inc., located in Youngwood, PA worked on all three of the featured WPAON projects. "We've been in business for close to 35 years," says Bruce Kaufman, Sales Executive for Caseworks Inc. "We both fabricate and install, and our primary market is healthcare. We're a listed vendor for the healthcare system in the Pittsburgh area, which is a very tough bid list to get on." The demographic of the local population translates to very full facilities, and a lot of competition for the healthcare dollar. "We strictly cater to our customers and we never drop the ball," says Kaufman. "Years ago we would get an entire wing to renovate, but now hospitals are at 100 percent occupancy. So we get limited areas blocked off and every project is carefully phased. Not only that, but the mechanics of state health permitting and inspections are often set before the project has even begun, and they are totally inflexible. If we have to, we work 24 hours a day to meet those schedules."

The three WPAON suites are good examples of Caseworks' core competency, custom projects that require specialty, high-performance engineered materials. "When it comes to materials you have to be able to rely on your supplier to give you what you need," says Kaufman. "We have a very strong base here with a company called Distributor Services Inc. Nobody else in the area has the infrastructure to put together specialty goods like NAUF panels and custom laid up veneer quickly. If we need something from DSI tomorrow, it is here tomorrow."

All of the cabinets Caseworks builds for medical projects are built from TFM with durable Wilsonart or Nevamar HPL exteriors. Panels fastened against walls have to be fire-rated, and much of that particleboard substrate comes from Flakeboard. "The designs that come from Matt Hansen are lighter and more durable because they are made from engineered materials," says Kaufman. "For the client that means less weight from repetitive lifting and opening. But it also lets Hansen bypass chunky industrial hardware and go to a higher-design European hinge. Both Hafele and Salice have products rated for industrial use. We get those from DSI too; they are a full service supplier. I don't stock materials, and I don't have enough time on my hands to call around and find everything we need for a project."

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Mellon Pavilion

Early on in the design process the nurse manager at the Mellon Pavilion location asked for a water feature in the treatment area, just for the sound and soothing visual effects. However there is a lot of concern about bacteria whenever water is introduced into a healthcare environment. "She was connecting to the spa-like feel that a water feature can provide," says Hansen. "While we could not carry over the sound component, we thought we could accomplish the visual quality in an abstract way." Green-blue textured 3Form panels were formed into curves and hung from the ceiling. The pieces land in a simulated catch basin that contains a different 3Form panel, this one with encapsulated river rock. "We liked the river rock so much that it gave us the idea to float the material above the concierge desk as the transaction surface," says Hansen.

High-pressure laminate with aluminum reveals is used throughout the casework at the Mellon Pavilion location to add the warmth of wood, but with the non-porous durability required in a healthcare setting. Behind the nurses station a wall that looks like blonde wood is actually made from anti-microbial porcelain tile designed to look like vintage wood. White Corian solid surface serves as the countertop material throughout the space. "I think Corian is in its best form as a clean, white surface," says Hansen. "I am not a big fan of imitation granite or stone. The fact that you can have integral sinks with solid surfaces is a huge thing in a healthcare environment because it eliminates a seam where bacteria and micro-organisms could thrive. The idea of everything being one piece is fantastic, but the reality is that could never be done with stone, it is incongruous. Why try to fool people into thinking that it is stone when the engineered material performs so well? I like the integrity of the material itself, and I like materials to stand on their own for what they are."

Lighting also required special consideration at Mellon Pavilion. "We wanted to take advantage of low ambient light levels in the space so we weren't creating a bright, clinical atmosphere," says Hansen. "We also had a lot of natural daylight, which we partially controlled by placing 3Form panels around the perimeter of the treatment room, in front of the windows." Compact fluorescent high hat lights, with individual dimmer switches, were placed over each chair to provide the nursing staff with appropriate task lighting. "It is common for patients receiving treatment to feel cold, so we also installed red heat lamps above each chair. The fixtures are separate from the task lighting and can be controlled individually by the patient," says Hansen. "We have received a lot of good feedback on that feature. While it does provide some heat, it also provides the perception of warmth and comfort." ■

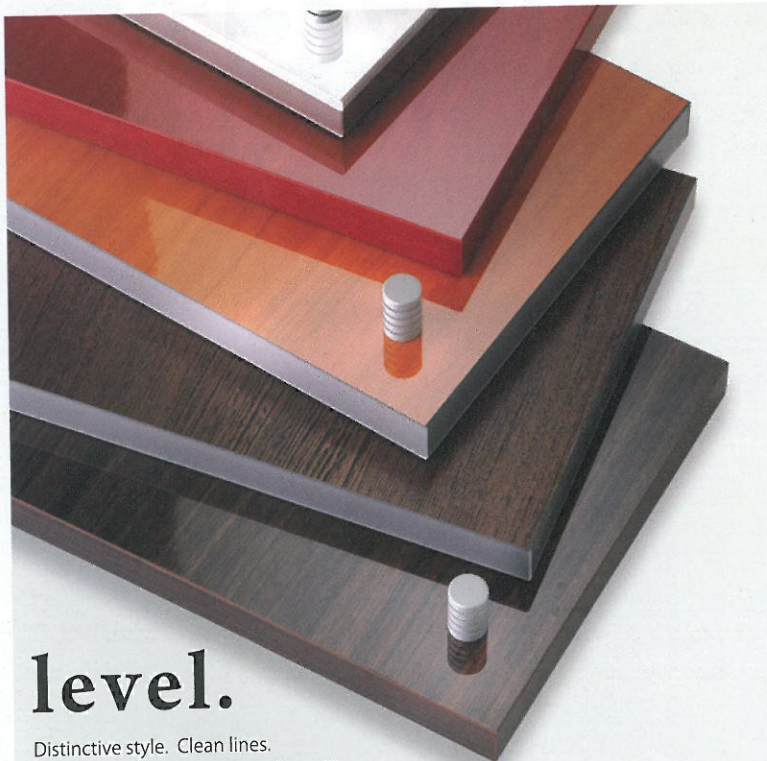


That's where Dave Dacenzo, General Sale Manager for DSI comes in. "Clients like Caseworks do a lot of work with the medical community here, so we are keenly aware of their specification products and their time sensitive parameters," says Dacenzo. "It is our job to understand manufacturing lead times. Most of the folks that we buy our materials from are made to order companies, not made to stock companies. We deal with lead times that are measured in weeks, so we can deliver for our customers when their lead times are measured in days." Beyond maintaining eight warehouses with a carefully selected product mix, DSI strengthens customer relationships by offering value-added services, like in-house capabilities to pre-laminate panels. DSI also has LEED AP professionals on staff to consult on specialty projects.

"When we introduce a new material into an environment, we need to know it is going to hold up to harsh cleaners and still look and perform the way it did when we first put it in," says Hansen. And that is a responsibility that is shared throughout the value chain.

Healthcare design is one of those things that when done well, the result is subtle; a functional, comfortable space that expresses compassion and confidence. It is when finishes wear or layout is cumbersome that people tend to notice. IKM makes sure that doesn't happen.

From a design standpoint, IKM works to reduce anxiety and make people more comfortable. And they do so with both patients and practitioners in mind. Specifying high-performance materials with traditional, transitional and contemporary aesthetics makes healthcare spaces that go beyond sterile institutions. "The healthcare facility market is really about making a difference in people's lives," says Hansen. "That is why healthcare design, to us, is so exciting." **s&p**



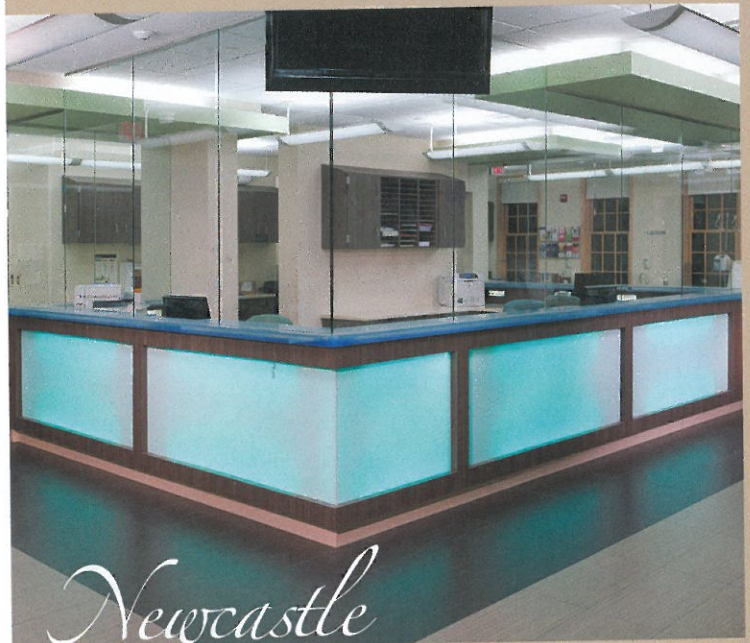
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Newcastle

IKM came into the Newcastle project as a tenant fit out, and the space presented a new set of challenges. "We had a tight treatment room spatially, but three walls of that treatment room had a lot of windows," says Hansen. "With so much natural light we were limited in what we could do with light fixtures. This is a nine-to-five operation, most of that time there is very little requirement for artificial lighting, which is great from a patient standpoint, but we were not going to spend a whole lot of time selecting light fixtures if they were not going to really be turned on." Instead the concept was to focus on a material and light fixture that would be apparent in the naturally day-lit environment. The solution came in the form of a specialty Corian product called Illuminations, a material that can be backlit with LEDs to create an interesting effect without increasing the overall ambient light of the space. The Illuminations solid surface material was used in conjunction with a wood design HPL. "Within each location, we intentionally used familiar finishes along side the modern looking materials to make the space feel less institutional and more comfortable," says Hansen ■



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