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The new River Region Health Center in Montgomery is undertaking a task of monumental importance - providing increased access to quality health care. The building in which this will be achieved relied on a monumental material - concrete - for its construction and its promise of a long lifespan.

CONCRETE: HEALTHY FOR LIFE



When it comes to building educational institutions for our kids, an "old-school" material - concrete block — is still the best choice by far.

BLOCK STILL THE BEST



City officials in Birmingham looking for an economic development catalyst chose a sports complex; architect Jim Hartsell, looking to give the city the facility it needed and deserved, chose concrete as the project's major building material.

BLUE-RIBBON BUILDING MATERIAL

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photographs pertaining to product

as well as innovative construction techniques impacting the industry.

applications, educational opportunities,

Keri Ward, Art Director & Editor John Sorrell, Editor Jennifer Kornegay, Writer

ARCHITECT SPOTLIGHT - 20

Montgomery architect Walter McKee has spent decades putting his passion for college sports and his chosen profession together. The result? Some of the state's most impressive and effective athletic facilities.

concrete: HEALTHY EOR LIFE



From your first look at the new River Region Health Center in Montgomery, you are instantly struck by its contemporary character; the sharp angles and dramatic entrance cut an impressive figure against the open sky behind them. The sleek, sophisticated two-story building almost sparkles in the sunlight as rays reflect off the multiple, large windows. It is a structure that is thoroughly modern: in its look, in its purpose and in its approach to sustainability. And yet, a time-tested, some might even say "old," building material — concrete — plays a key role in all three.

The 50,000-square-foot building is one of 12 Health Services Inc. (HSI) neighborhood clinics in the River Region and replaces HSI's Lister Hill Clinic, which had served as the main HSI health center for decades. The new Center provides comprehensive medical services for a wide range of area citizenry, including affordable primary, preventative and wellness care as well as other specialties, like OBGYN, psychiatry, podiatry, an X-ray lab, dentistry and a pharmacy, all at one site. The River Region Health Center will serve approximately 26,000 patients a year and handle 80,000 medical and dental visits annually. And as a federally subsidized health care center under the auspices of the federal Department of Health and Human Services, it offers increased access to care, never turning away a patient because of their inability to pay or lack of insurance.

Treating myriad health issues and contributing to a higher quality of life for all in the region are the Center's main goals, but it takes more than doctors, nurses and medical equipment to achieve this. The design of the building has a major impact on the new facility's ability to function at its highest level and meet both patient and staff needs. Architect Don Brown, FAIA, owner and principal of Brown Chambliss Architects based in Montgomery, explained. "Although medical care is paramount, clearly good design matters in this case," he said. "The building functions superbly, is patient friendly and highly energy efficient. The physical presentation is meant to welcome patients with warm materials, much light, clarity of organization and a sense of permanence and quality that is appropriate for the significance of this building."

It is the use of precast cementious panels for both the interior and exterior that create an aesthetic that imparts the "sense of permanence and quality" that Brown notes. And it does so quite simply. "The concrete says the building is strong, durable and will be here a long time and does so without being ostentatious. And it is also an

economical choice, very cost-effective," he said.

Inside, wood ceilings and wall accents along with punches of vibrant color add warmth and energy, lessening the often-dull, cold look of a medical facility. "We wanted patients to be treated right medically but also feel comfortable in a non-institutional environment," Brown said.

The Center is also a perfect example of form happily married to function, thanks to the versatility of concrete and its use in the interior. The structure is now a national model for this type of health care delivery system. "The building is highly flexible. It is zoned from front to rear for public space, to clinic services spaces, to private staff space," Brown said. "It has the capacity to handle considerable variations of patient demand pressure and also to adapt or change functions over time. We continued the use of these precast panels on the inside. Concrete gave us design flexibility to size joints and define scale."

Sustainability was another crucial attribute considered in the planning of the Center, and here again, according to Brown, concrete fit the bill. "Today, we feel it is an



very elegant-looking building that serves its purpose well thanks to a simplicity of concept

important design consideration for structures to have a long life span and be a responsible building for the long term," Brown said. "To do this, we need to use materials that have a long life and use fewer resources to be created. Concrete is a superb material when it comes to meeting these sustainability goals, and that's another reason we chose to use concrete in a variety of forms for the project."

Indeed, concrete is becoming a material of choice for "green" building thanks to its eco-friendly qualities. It can be recycled; old concrete can be crushed and used as aggregate in new material. Its light color reflects heat, creating a cooler surface, which is an important consideration in urban areas. And its durability gives it the long life that is a hallmark of sustainability.

The Center has also achieved LEED Gold certification and is among the most energy efficient buildings in Alabama. The strategies involved here include a highly insulated building envelope; lots of windows flooding the space with natural light, which requires less artificial

lighting; window shading; and a state-of-the-art mechanical system allowing virtually every room's heating and cooling to be controlled separately, depending on real requirements and patient loads.

Brown understands the importance of sustainable building and how to achieve it better than most; as a national leader in his profession, he literally wrote the book on the subject. "I was one of the few AIA members who worked from the beginning to craft the new national building code now available for adoption for energy efficiency and the use of resources," he said. He also wrote a principal portion of the grant that secured the needed stimulus funds to envision and construct the Center.

One integral component of the Center is the retaining wall at the back of the site. The 460-foot-long wall, ranging from 16 feet to two feet high, has the look of stone but is made of special concrete masonry units. "The wall was a fundamental requirement for this building since the site had a significant fall from the rear to the front," Brown said. "We elected to provide second-floor access at the back





for staff, with public access at street level on the front side. The wall was the means by which we managed the elevation differences. In addition, it provides a superb view from the staff offices on the ground level." Concrete was chosen for the wall because it was the right structure, design and price.

While the wall was necessary from a practical standpoint, its placement also provides a nice backdrop to help create

more privacy for all of the offices on the ground floor. "It's simplicity of appearance and quality of use reflects the primary design of the entire building," Brown said. Other uses of concrete at the River Region Health Center site include sidewalks and concrete paver walkways. "That was a very traditional, but also very logical, choice," Brown said. "In all, it is a very elegant-looking building that serves its purpose well thanks to a simplicity of concept, clarity of expression and the honest use of the

right materials. It proves that design choices matter. In all well designed buildings, choices compete for priority. This building is an easy blend of clean functionality, striking visual imagery, sound science and a deliberate choice and application of materials, including concrete."





BLOCK THE BEST

It's not breaking news that educating future generations requires considerable resources, including teachers, other staff members, books, computers, equipment and more. But the school itself, the structure that houses all of the above, is an equally important part of the equation. It must be strong enough to be safe; it must be durable to last decades; it must be energy-efficient to reduce waste; it must be economical to fit into ever-smaller education budgets; it must have the flexibility to be highly functional; and finally, it must have a look that is welcoming and creates an environment conducive to learning. Only one building material can deliver all of this and more: concrete block. Neil King of Evan Terry Architecture in Birmingham was the lead architect for two new high schools recently constructed, and he shared the role concrete played.

MASON FISCHER PHOTOGRAPHY COURTESY OF EVAN TERRY ASSOCIATES















The alumni wanted to bring forward that same look and to emulate the old building



IGH SCHOO

The original A.H. Parker High School in

downtown Birmingham was built in the 1930s. The stately old building saw the success and eventual graduation of students who've become important figures and leaders in the city today. Parker's alumni are proud of their alma matter and were very active in the process when it was determined that a new facility was needed. "To both the Birmingham City School System and many of the past graduates of Parker, this building replacement project was of paramount importance," King said. "The alumni were involved throughout the course of the design and interested in the end product."

The total square footage for the project is 194,250, and the new space was designed to accommodate 1,200 students with 54 classrooms, a media center, several computer labs, several science labs and vocational technology classrooms. The old school building was taken down and is now the site of a new parking lot. The project

also included the addition of some athletic facilities that expanded the campus and its offerings.

A key point of consideration for the alumni was the new structure's style. The original high school had a white brick façade. A newer competition gymnasium (built just a few years ago) shared the high school's aesthetic, with a white, split-face concrete block on the exterior. "The alumni wanted to bring forward that same look and to emulate

the old building," King said. "The design challenge was to match the gym and the school and to create something that really fit into the existing environment."

King turned to concrete to create the desired effect for the exterior. "We went with a masonry exterior and blended it with architectural pre-cast concrete," he said. "It came out great."

On the inside, traditional concrete block was King's choice, for many of the same reasons that have made it go-to material for schools around the country. "Standard grey block for the interior is

the ideal material for schools for multiple reasons," he said. "One it is durable, so it provides you with a long-term finish wherever you use it. Plus, it has beneficial structural properties."

In the two-story building, concrete was used for load bearing, and hollow-core panels were used to frame the floor on the second story, so no steel beams were needed for support. According to King, this allowed for a more economical and flexible design. "We had more room to raise the ceilings, which was important, and we could bring in more natural light, which really brightens things," he said. "It let us create and overall nicer space."

Other must-have qualities for school buildings are found in concrete block; it is naturally fireproof, which means King could achieve the necessary high level of safety without incurring extra costs. "With concrete, you don't have to add layers of other fire-proofing material, so it is cheaper in that regard."

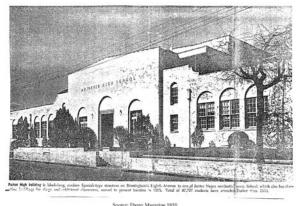
Some might see the involvement of the alumni as an obstacle,

but not King. "I was glad to have the community express their opinions," King said. "It was different from what I've encountered in my career thus far, but it was not a bad thing. It was nice to see people taking such an interest in their community and an interest in the heritage of the school."

And it was the versatility of concrete block that gave King and his team the design solution they needed to make everyone happy. "It let us present

something that satisfied the community and the client while also utilizing the material that we knew would be best from a structural standpoint," he said.

The project was completed in the fall of 2011, and everyone involved is more than pleased with the end result. "We wanted to pay homage to the past, but with an eye to the future," King said," to give these students a beautiful but also functional space in which to learn and thrive."



In Center Point, right outside of Birmingham, the area's Erwin High School could no longer support the number of students filling its halls, leading the Jefferson County School System to call for the design and construction of a brand new high school complex. The Center Point High School project was completed in 2011, and here again, concrete block was a key component.

"There has been increase in the population of Center Point, and there was a definite need for more space," King said. That need was met by King's design. The new 259,000-square-foot high school is located in the midst of an older suburban area, and the buildings on-site consists of a two-story academic and administration wing containing the administrative suites, media center and classrooms; a one-story activities wing consisting of the cafeteria and kitchen, band and choral space; a 650-seat auditorium; a 400-seat physical education gymnasium; and a 1,500-seat competition gymnasium and associated storage, classrooms and locker/shower rooms.

King's first consideration for the look of the school was to design something that would be in keeping with the surrounding residential neighborhood. "All three components - the gyms, classroom buildings and performing arts center - needed to complement each other," he said. "But we also had to be mindful of our surroundings."

The structures have an exterior brick façade in a traditional reddish hue that matches much of the brick of the nearby houses. Once inside though, concrete block is the obvious anchor, composing the interior of all of the spaces. "We chose concrete block because of its fireproof quality, durability and its structural abilities," King said. "We used block for load bearing, and used hollow-core for the flooring. We also used masonry load bearing for the very tall structures in

the gyms and the performing arts center."

But concrete also factors into the school's style. "Because we used brick on the façade, we wanted to accent that in some way to give it something extra," King said. "So we went with architectural pre-cast concrete to accentuate the entrances for each of the three structures. As you arrive, you see that red brick on exterior but the focal points are defined with the pre-cast concrete, and they really stand out."

King praised the myriad uses of concrete block, specifically pointing to the variety available today. "We find that you can get so many different textures, and there are also some inherent acoustical properties, which is why we used the split-face block both as accents and as acoustical panels in the performing arts center."

From King's perspective, there's just no question that concrete block consistently delivers an "A+" performance in educational settings. "As an architect, I look at a material and see something like concrete block with the fireproofing, acoustic properties, structural properties, flexibility in look and design, and overall cost-effectiveness and know that it was the right choice this project."





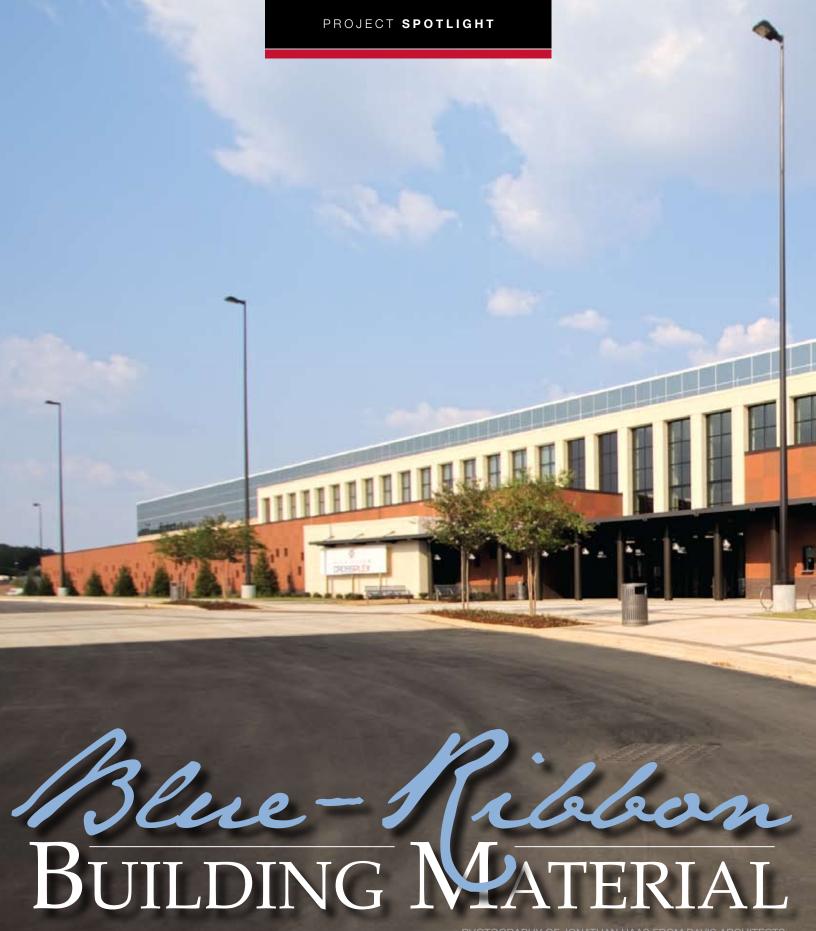








66 We find that you get so many textures



PHOTOGRAPHY OF JONATHAN HAAS FROM DAVIS ARCHITECTS



...because it is just so strong, durable and cost-effective.

Completed in August 2011 and attached to existing Fair Park arena, which is a basketball coliseum, Cross Plex is one of the finest facilities of its kind and promises to draw local, regional and national sporting events. "It really gives the city a good anchor for redeveloping that entire property," Hartsell said. "It has already hosted the University of Alabama, Auburn University and Birmingham-Southern College and track and field events, and the State High School Association will be holding the state track championships at the Cross Plex, so it's really already been successful as far as

The natatorium portion of the building contains a 50-meter pool with a movable bulkhead that allows it to be easily divided into two 25-meter pools so two swim races can be run concurrently. It seats about 1,000 spectators.

bringing in events."

In the facility's main lobby, its concessions area and the concourse area between the natatorium and the track, Hartsell went with ground and polished concrete for the floors. Attributes like the material's high-durability, low-maintenance, design versatility and great look combined to make it the natural choice. In this application, concrete is actually ground, polished then dyed a variety of hues. "In the floors we have some great detail and lots of geometric patterns that tie directly into our design elements on the walls in other areas," he said. "The ground and polished concrete gave us the immense flexibility to create that. It also has a very monumental look that's very modern with a nice sheen. We like it a lot and have been using it quite a bit lately." The Cross Plex floors feature five different colors in various areas

Making a simple, yet strong and sleek, statement can sometimes be rather complex, but in this case, concrete floors provided just that impression and did so in a very cost-effective way. "Using the concrete for the floors was the best way to get the look we were after,



but it was also an economical way. You get this very finished surface without much work."

The floors look good now and will continue to do so for many years to come, thanks to their durability and the fact that they are so easy to keep clean. "They can basically be fully cleaned with a mop and some water," Hartsell said. "And they'll really hold up well under massive foot traffic. They won't have to be changed out every five or so years like carpet or even tile would. And mainly, I just like the way it looks."

He did stress one point that merits consideration when working with ground and polished concrete floors. "It does present a few challenges during construction because you have to protect the floor while installing it, and you have to make sure the floor is extremely level so that the grinding machines can polish it to an even surface."

Other uses of concrete at Cross Plex include the swimming pool and the building's exterior walls: all the walls are concrete block with brick veneer and split-face block veneer. Over-sized masonry units enhance the impressive entrance. "We had the existing arena we had to work with and blend into, so that was the starting point that drove the aesthetics," Hartsell said. "From there we knew we wanted the new facility to have a high-tech, contemporary style, and concrete certainly fits that."

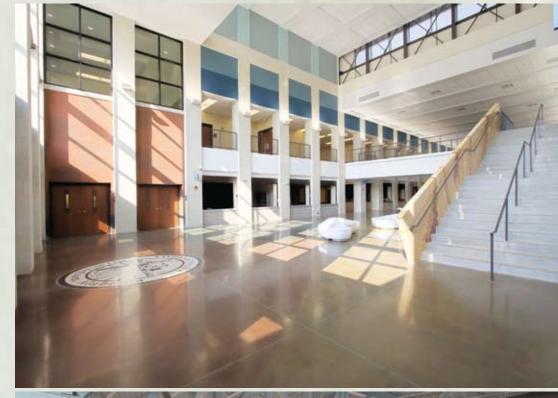
Most of the interior spaces were built using a mixture of splitface and ground-face concrete block with some additional oversized masonry units for accent. "We used quite a wide range of



concrete in this project," Hartsell said. "But it makes good sense to do so due to its lifespan, strength and flexibility. The ground-face block in particular is a really good product. It gives you a very elegant look without having to paint it, and it is extremely durable."

Other areas utilize standard concrete block. "It's a basic material we use a lot in these types of projects, again because it is just so strong, durable and costeffective," Hartsell said.

He also pointed to one of concrete's benefits that is not touted quite as often as its others, one that can be especially important in our area. "Concrete in general is often chosen for a vast array of construction projects for one other important reason: With the weather patterns we have here in Alabama, as much as it sometimes rains, concrete lets you keep your construction moving along, meaning you can finish faster, even in poor weather conditions."





PROFESSIONAL WALTER MCKEE, AIA



The intense passion

surrounding college sports in Alabama, much of it focused on the state's two largest institutions of higher

learning, The University of Alabama and Auburn University, has served as a source of inspiration for many things. While it has given rise to a few less-than-positive events, most of what this high level of emotion has rendered is good — even uplifting — for all concerned.

In the case of Montgomery architect Walter T. McKee Jr., AIA, founder and principal at McKee and Associates Architecture and Interior Design, a love of sports, particularly football played by the guys in burnt orange and navy blue, has, in some ways, shaped his career and definitely factors into his choice of favorite projects. "I'm a big Auburn football fan, and as I have a significant interest in college athletics, some of the projects that have meant the most to me have been the improvements and additions to college athletic facilities, such as Plainsman Park at Auburn, the expansion of the football stadium at Troy University and the expansion of the football stadium at Jacksonville State University," he said. The JSU stadium was originally opened in 1947 and

expanded twice before recent expansion that took place in 2010 took the facility's capacity up to 24,000 seats.

Other notable sports-related projects completed by McKee include an \$8.5 million major renovation at Cramton Bowl in

Montgomery, the design for the new indoor, multi-purpose, 95,000-squre-foot sports complex in the capital city and the design of recreation facilities for the city of Piedmont. McKee and Associates also specializes in buildings on college campuses that are for academic use. His firm designed the recently completed School of Business and International Development at Troy University.

These accomplishments are only the top of a lengthy list generated throughout his over 45 years as a practicing architect. He's been at it quite awhile, but



he's known it would be his life's work for even longer. McKee's fascination with architecture started early in life and was nurtured by a loving, attentive grandmother. "I pretty well knew from early childhood that I wanted to be an architect," he said. "My grandmother

> would work with me, helping me design and draw house plans. Those activities sparked my interest in architecture, and she continued to

feed my interest."

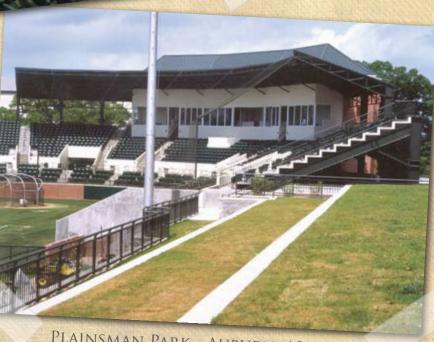
Once he honed in on what he wanted, he determinedly set to work to make it happen. "Really from that point on, I did what it took to pursue architecture as a career," he said. After graduating from Sidney Lanier High School in Montgomery, he attended Auburn University. He graduated from Auburn's architecture school in 1964. After college, McKee worked for Pearson, Tittle and Narrows for seven years. Then he joined the firm of Blondheim & Williams and worked there for two years

before he opened up his own firm, Barganier McKee, with Jim Barganier. He worked as a founding partner in Barganier McKee & Sims for 17 years until 1991, when he branched out again and started McKee and Associates. Today, McKee and two of his sons work along with 23 other employees in the firm's main office, an historic Victorian-style house on the edge of downtown Montgomery, providing a wide range of clients with full-service architecture and interior design services including cost-effective design solutions that are aesthetically appealing. McKee and Associates also has offices in Mobile, Tallassee and Troy.

When McKee finished his education, he took more than just a degree away from his college experience; he left a die-hard Auburn fan. His zeal for college sports extends beyond his alma matter though, and when his two

> loves, athletics and architecture, come together in a project, it makes his work that much more enjoyable. Fortunately for McKee, as his firm specializes in large athletic facilities, this happens quite a bit. This also means he often works with a lot of concrete. "All of the athletic facilities we've designed utilize vast amounts of concrete in various forms," he said. "There is no other material in existence that we'd even consider using for these endeavors."

The value of concrete for such projects is high for several reasons, as McKee explained. Concrete lasts and lasts and then lasts a little longer, meaning it is usually a very economical choice in the long-term for large-scale building. "Concrete structures in stadiums are much more desired because of the material's proven strength and durability, which



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translates into both low maintenance concerns and long-term cost effectiveness," he said. "Many times concrete is selected because it can be justified as the most cost-effective when you look at the whole life cycle. Some lesser materials might cost less at the outset, but they then require more to maintain and have to be replaced sooner, while concrete requires little regular maintenance and has the ability to better withstand winds and weather elements."

And McKee often uses concrete in every facet of a project. "We see clients choose concrete for things beyond the structures we design, including components like paving and parking lots because they don't want to have to replace them in just 15 or 20 years," he said. "With concrete, they know they won't have to. Concrete is lifetime material."

From the standpoint of safety, McKee stressed the benefits derived from some of concrete's inherent qualities. "Thanks to the material's rigidness, it is sturdy and safe; the fact that it is naturally fireproof contributes to a superior level of safety as well," he said.

According to McKee, the most interesting of his recent athletic facility projects are the two expansions to Troy University's football stadium. The bulk of the stadium was created with concrete planks and concrete seating, a fact that McKee was very pleased with. "We were able to get the university concrete seats in the lower stands for the same price as aluminum seats," he said. "This was a tremendous improvement to the quality of this major football stadium. Of course, concrete will last much longer, but from aesthetic perspective, it also gives the whole thing a more substantial feel and a look that imparts a higher perception of quality."

McKee hit on a key point as he described the "look" of Troy's stadium. While designing a house or building that will remain standing safely and securely is the primary purpose of architecture, it does matter how things look; aesthetics can affect attitude. This fact underpins architecture's importance in culture and society today. "First and foremost, our role is to design a facility that complies with all current codes so all users of the structure operate in safe environment," McKee said. "But second, we want to make that piece of architecture as high-quality and as exciting to view as possible; the beauty of a building does affect the mood and morale of those in and around it."

Throughout his almost five decades in the profession, McKee has faced challenges to the imperatives he outlined above. Yet he's always found ways to surmount any hurdles he's encountered.

WE WANT TO MAKE THAT

PIECE OF ARCHITECTURE AS

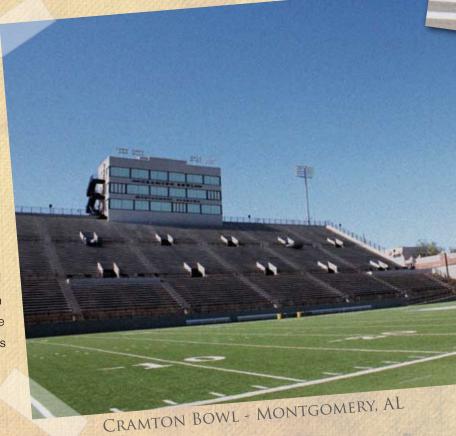
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Med WALTER MCKEE

Sitting in his second-floor office in the historic Stay House, circa 1893, on the edge of downtown Montgomery with his beloved dog by his side, architect Walter McKee, founder of McKee and Associates Architecture and Interior Design, chatted with ConcreteWorks about his career, his love of sports and more. Here are a few of his thoughts on matters both important — and not so important.

WHAT WOULD BE YOUR "DREAM DESIGN" IF MONEY WERE NO OBJECT?

One of our company's major focuses is schools, so my ultimate design would be to create a school that would be far above what school boards could afford, and to emphasize what is really needed in an education environment and provide the amount and quality of space that students deserve to learn in.

WHAT WOULD YOU BE IF NOT AN ARCHITECT?

At my age? Probably retired. Or maybe a consultant or program manager, but it would definitely be something related to the building industry.

WHAT IS ONE TOOL YOU COULD NOT DO WITHOUT?

My computer. It seems hardly anyone can function without one these days.

WHAT WAS YOUR FIRST JOB?

I worked at a bookstore in Montgomery selling schoolbooks during the summer.

WHAT ARE SOME OF YOUR HOBBIES?

I play tennis. I enjoy watching college athletics with an emphasis on Auburn. And I like doing activities with my grandkids.

WHAT IS YOUR FAVORITE BUILDING OR STRUCTURE (NOT OF YOUR OWN DESIGN)?

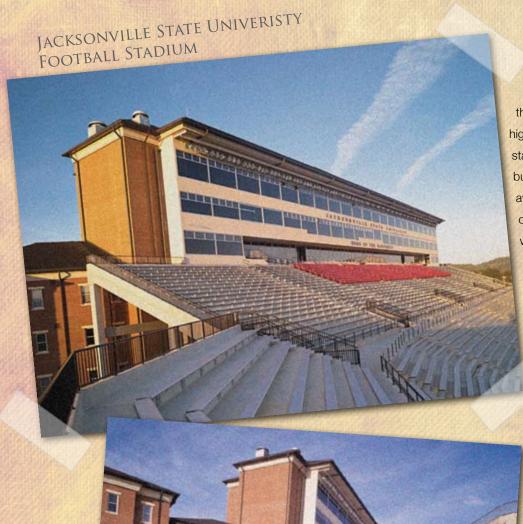
I have a real fondness for monumental governmental buildings like the Washington Monument and the U.S. Capitol, but in terms of straight architecture, I'd have to say it is the Guggenheim Museum in New York City. That's my definite favorite.

IF YOU COULD HAVE DINNER WITH ANYONE, DEAD OR ALIVE, WHO WOULD IT BE?

I'd say Billy Graham. I have a great admiration for him and all that he has done and accomplished.

WHAT IS THE LAST BOOK YOU READ?

Coach Gene Chizik's book, "All In."



"Architecture's biggest challenge is striking the right balance between designing the highest quality structure for your clients while staying within their financial limits and the budget constraints; you have to always be aware of costs," he said. "You have to be creative and work to find solutions, but that's why architects exist. It is what we do."

"What architects do" has not changed

much, but how they do it has, and to McKee the most obvious shift has been in the quality of construction, where he's seen some drastic improvements.

"In areas like energy efficiency, comfort levels, quality of interior finishes and designs and architectural features, the creative talents of the architecture community have stretched and stretched to introduce new styles as well as to perfect the traditional elements and the transitional styles," he said. "The result is an outstanding range of designs being produced today."

With so many positive advancements, McKee did lament one problem on the rise. "I'm noticing more and more the deterioration of older structures. They are just left to fall apart," he said. "This has created a true environmental blight on the American landscape. It is a real issue that affects us all."

While the profession and its evolution are multi-faceted, at the end of the day, McKee is still moved by something rather simple. "I'm constantly and continually inspired by my job," he said. "I love the day when I get to go back to a building and the client indicates to me how well the building is functioning and how happy they are with the environment that we have created for them and their users. It's just a great feeling."



Savedate Mod I

May 31 – June 2

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