

# TENNESSEE CONCRETE MAGAZINE

Spring 2018  
VOL. 32, NO. 1



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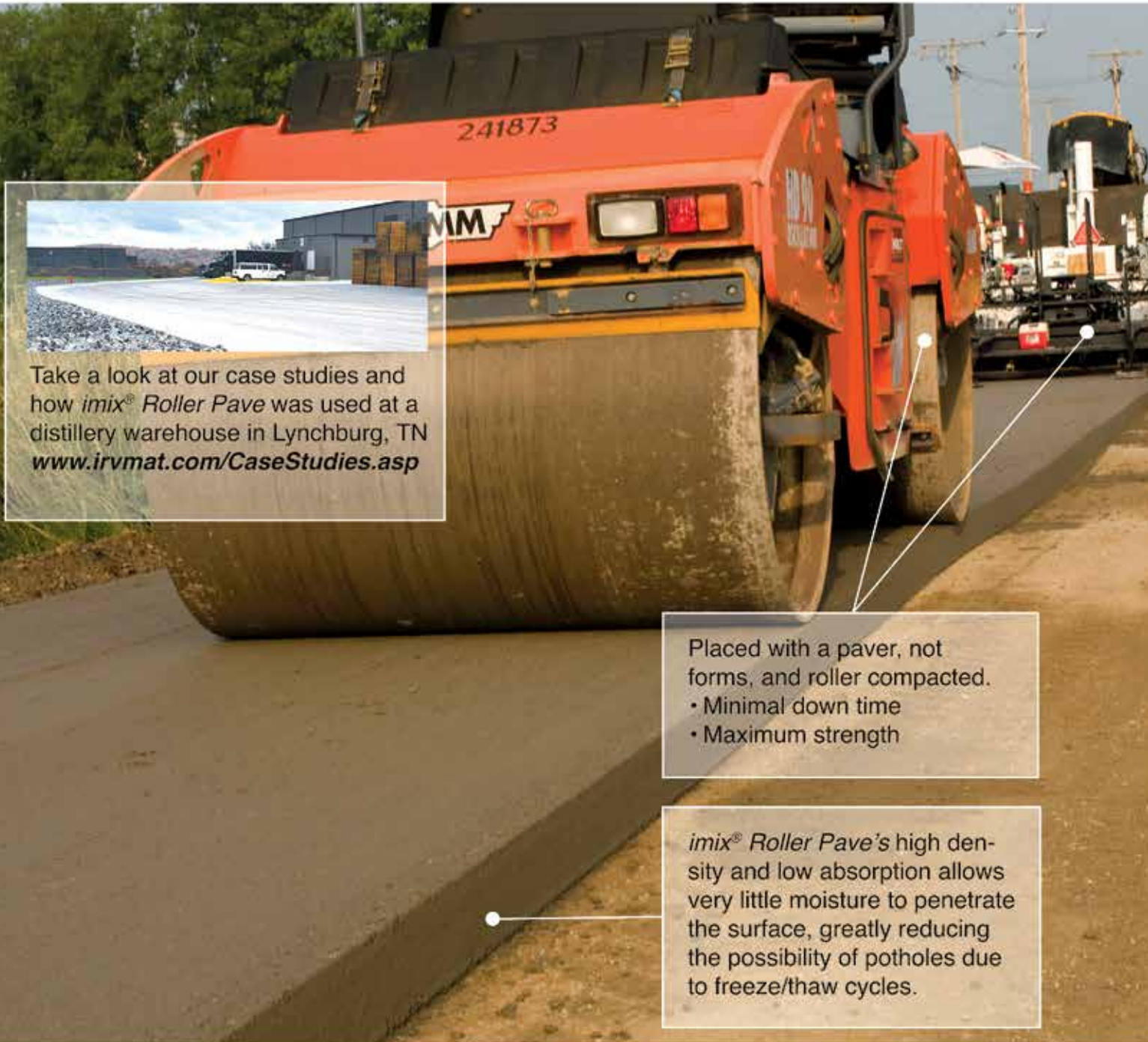
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Dr. Heather J. Brown

# STRATEGIC PLANNING

## —TCA'S ON A GREAT TRAJECTORY



**Cole Dodds**  
2018 TCA President

.....  
Get a better  
picture of  
where we  
stand today  
and where  
we want to be  
in the years  
ahead.  
.....

I am excited to begin my term as your President for our Tennessee Concrete Association. To begin, I would like to express my appreciation to my immediate predecessor Tonya Alexander and the rest of the Board of Directors for their confidence in me, and for all the work they have done to chart a positive path for the Tennessee Concrete Association.

Our Board's primary project for 2017 was the creation of a new strategic plan for TCA. Working with a team of talented consultants, led by Ms. Anne Ellis, our board dove into assembling important and timely information about our industry and the wider world in which we operate. We spent time understanding this information and putting it into context so we could get a better picture of where we stand today and where we want to be in the years ahead.

These efforts culminated with our Strategic Planning Retreat last November where we spent two days focusing on what we had discovered throughout the year and turning that learning toward TCA's future. Our process confirmed that our past strategic planning efforts had put TCA on a great trajectory, and it showed us the areas where we needed to focus our attention to maintain our success moving forward.

One of the big takeaways for me was how much our local businesses are impacted by things that don't take place locally. The best example of this is building codes, and we spent a fair amount of time talking about this very issue. Nationally, concrete (and steel) are losing significant market share in mid-rise construction (four to seven stories). You can

drive through any town in Tennessee where multifamily housing is being constructed and you will see up to five stories of all-wood construction with no concrete walls or floors, with the possible exception of the stairwells and elevator shafts. This is a direct result of code changes that were pushed through in the model codes more than a decade ago, and we are now seeing an enormous negative impact on our present-day business.

Codes are shaped and adopted far away from our hometowns and the impacts will not be felt for many years. That makes it easy to forget about the importance of such issues, but the concrete industry needs people to be part of the code-shaping process on an ongoing basis. It's not glamorous and it's not free, but it is critically important for the concrete industry to be engaged. That engagement can't happen without the support of every individual company, and I encourage you to lead the effort at your company to increase your engagement on this important issue.

A great part of the strategic effort in 2017 was the *learning* that each of us was able to bring back to our own companies to help us in steering toward a positive future. This is one of the payoffs for participation in TCA, and I am appreciative of this benefit for me and for my company. I need your participation in our association to capitalize on and accelerate our momentum in 2018, and you need the benefits that come from participating. Join me and your peers at TCA as we **L-E-A-D** the way toward a positive future in 2018 and beyond.

*-Cole Dodds*



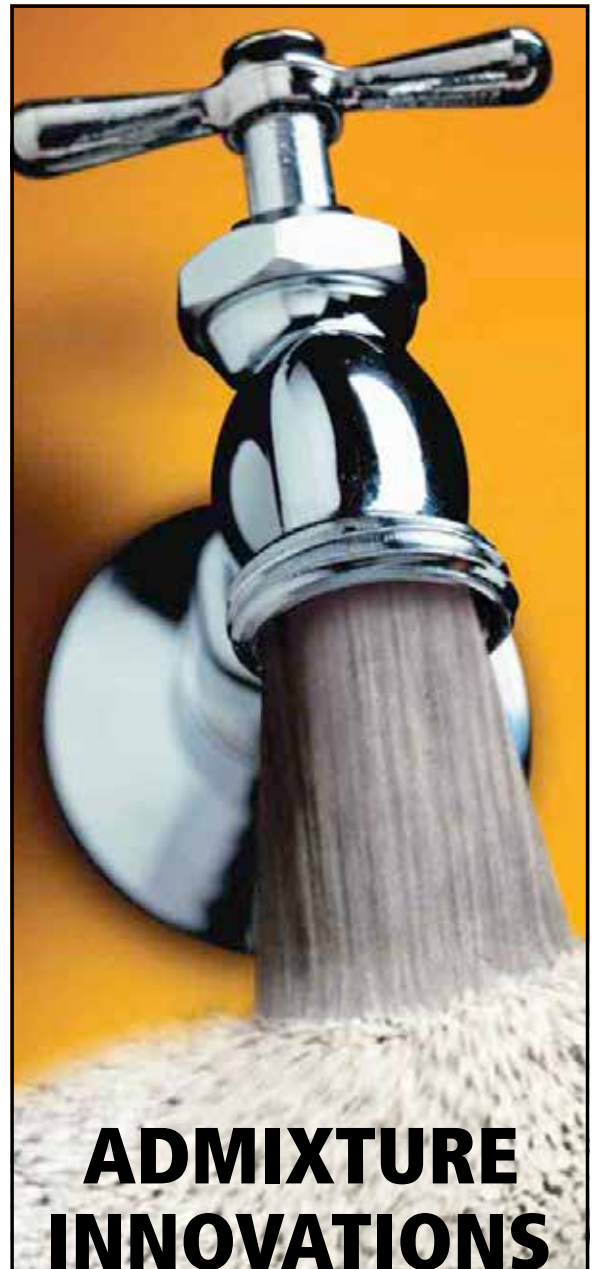
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Alan Sparkman  
Executive Director

# Welcome to Our ANNUAL AWARDS ISSUE

**W**elcome to the 2018 Spring edition of our magazine. We are proud to feature the winning projects from this year's Annual Concrete Design Awards, and I know that you will enjoy reading about these great concrete projects from across Tennessee. We are also pleased to feature our winning concrete essays from TCA's annual High School Concrete Essay program—thanks to all the students from across the state who sent in their entries, and congratulations to our three winners.

As we head into 2018, the outlook for construction and concrete continues to be strong. This continued strength provides a precious opportunity to prepare organizations for the future—for both continued good times and the next slowdown that is almost certain to occur at some point. Here are three tactics you might employ to prepare your organization to prosper in times fast and slow:

- 1. Build your team.** Finding good people has always been a big challenge, and today it is the biggest challenge for most organizations. This is 2018 (not 2010!), so you will likely need to pay more to attract talent, and you will need to give more than lip service to work/life balance (think predictable schedules from management all the way to the front line). Quit pining for the way things used to be and start competing to hire the people who are entering the workforce today.
- 2. Build your margins.** This is perhaps your best defense when things slow down. If you enter a recession with thin margins your chances of survival are not good. Plus you need better margins now to attract talented people to your team – smart, talented employees look for employers who aren't barely scraping by on thin margins. It's never easy to increase your margins but the best time to do it is when

you are busy. If you are having trouble servicing your existing customers this is a strong indicator that you have room to increase your margins!

- 3. Build your impact.** Connect passion and purpose to improve your community with your organization's everyday business. This will make your organization more attractive to new employees and it will dramatically improve your prospects for retaining the people you are able to hire. Work consumes the majority of a person's waking hours, so finding a way to connect what you do to a purpose that people value is a great way to differentiate your organization from everyone else.

I want to close with a practical suggestion for how you can build your impact and your team by investing in the future of the concrete industry. TCA's Board of Directors took a bold step in 2016 to make a 10-year pledge to the Concrete Industry Management program at Middle Tennessee State University. We pledged \$50,000 in cash—payable over 10 years—towards a new home for the CIM program on the MTSU campus. That's a big lift for a non-profit association but our Board saw this as a strategic investment in the future of the concrete industry in Tennessee. TCA wanted to lead (**LEAD**—check out our new strategic plan and how this ties in by reading our President's Column) the way for member companies to make their own contributions to the CIM building fund, and, as you can see from the CIM update elsewhere in this edition of the magazine, that is beginning to happen. We need help from a broad cross-section of our industry to make this dream for the CIM program a reality—our industry needs your participation to make it happen!

—Alan Sparkman

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As we head into 2018, the outlook for construction and concrete continues to be strong.

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We pledged \$50,000 in cash, payable over 10 years, towards a new home for the CIM program on the MTSU campus.  
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# 2018 CONCRETE AWARD WINNERS





# 2018 CONCRETE AWARD WINNERS



## *Congratulations*

### **GRAND CHAMPION & BEST CONCRETE HOME**

#### **Petra Pointe**

IMI, Irving Materials, Inc.  
Rock Solid Construction

**T**his home is fixed on a prime location in Smithville, TN bordering Center Hill lake. In hiring Mark David with Rock Solid Construction they quickly went to digging and pouring the footers to move into forming and pouring there Symon wall forms which stood 14 feet tall and 22 inches wide utilizing 120 yards in the walls. Mark David's crew then went on to pour both retaining walls with Symon forms which had a footer 8ft wide and 2 feet deep due to the fact that 14 feet of fill would lay against it. Each wall has about 80 yards worth in it not to mention footers. The Rock Solid Team then went to forming and pouring 250 yards of Scofield Yosemite Sand concrete spanning the length of the driveway hand forming curb and spillways along the way. A fire pit was also poured and rock placed as a decorative touch. Inside the floors were dyed Butterfield Black and Grey to the owners liking. In total this 6500 square feet home utilized 800 yards of concrete between the footers, walls, floors, walkways, porches, driveways, and fire pit. The end result is a truly spectacular home located on the lake- to which Rock Solid Construction is proud to have partaken in. All Concrete was provided by Irving Materials Inc.

—Awards continue on page 10





# 2018 CONCRETE AWARD WINNERS

## BEST ARCHITECT/ENGINEER-NON-BUILDING STRUCTURES

### Division Street Extension Bridge

IMI, Irving Materials, Inc.  
Gresham, Smith and Partners  
Bell & Associates Construction



**T**he project is located in Nashville and consists of the construction of a new 4-lane roadway close space and bridge along the existing Division Street and Ash Street alignments from 8th Avenue South to Lafayette Street. The new half mile steel beam bridge spans the active CSX railroad tracks, connecting Division Street to Ash Street and consist of over 1,400 yards of 4000 psi lightweight concrete. The bridge is complete with roadway ,bike lanes and sidewalks that links the Gulch to South Broadway.

## BEST CONCRETE HOME

### Solimie's House on the Hill

IMI, Irving Materials, Inc.  
Dusty & Sons Concrete, LLC



**D**usty and Sons Concrete, LLC was hired by the Solimie's to come in and pour 11 foot high cast in place poured basement walls and footings for their house in Franklin, Tenn.



# 2018 CONCRETE AWARD WINNERS



Dusty and Sons developed such a good relationship with the owner that they placed all of the concrete for the whole house including a beautiful stamped patio in the backyard, basement slab, and all of the big driveway. The stamped patio was about 30 yards colored with color hardener and stamped with slate texture mats. All of the driveway was done in a exposed chipped limestone wash.

In total, Dusty and Sons Concrete, LLC placed 350 yards of concrete in the house. IMI supplied all of the Concrete for the job.

## BEST CONCRETE PARKING LOT

### Jack Daniel's Visitors Center Parking Lot

IMI, Irving Materials, Inc.  
D Nickell Company, LLC



This project is located at the Jack Daniels Visitor Center in Lynchburg, Tenn. When designing the parking lot, Jack Daniels wanted everything to flow easy and blend. D Nickell Company was given the task of not only pouring the entrance along with the turn around with exposed river rock, but they were also asked to match the middle parking area as closely with color to give it a continual flow. D Nickell decided on Scofield Canyon clay as their final choice and the result was stunning. This project involved approximately

1000 yards of concrete ranging from exposed river rock, canyon clay parking areas, regular concrete handicapped parking areas, curbs and gutter, small walls with rock face, and formed steps with sidewalks.

## BEST FINISHING - ARTISAN

### The Keras Residence

Memphis Ready Mix  
David McMittigan  
Baltz & Sons Concrete



This multi-faceted project was a collaborative effort of several contractors under the stewardship of Michael Hatcher and Associates, and features some spectacular concrete installations by Baltz & Sons Concrete. Kevin Baltz was first approached by Hatcher Designer David McMittigan



# 2018 CONCRETE AWARD WINNERS

to take on the multiple concrete applications for the project. Baltz first installed structural slab footers and a large concrete mud deck to serve as a foundation for brick paving and a subsequent cedar lodge structure.



The new structure would house an outdoor kitchen and service bar, for which Baltz designed specific forms and installed a custom poured-in-place concrete countertop with a "waterfall" draped edge along one side.

The design, featuring built-in LED lighting, was complex in that portions of the countertop would be cast into constructed molds, while the surface would be placed and finished, yet both portions needed to be continuous and match in texture and appearance.

Baltz then installed a second structure slab for a large smoker, pizza oven, and grill kitchen. For this, the owners wanted a durable and easily maintained floor, so Baltz opted for a steel hard-troweled and polished surface. His team later applied a densifier agent and sealed the surface with a super-hard, low-sheen modified siloxane/acrylic hybrid sealer.

These two areas are connected to the backyard living areas, each other, and the driveway to the home via new exposed aggregate walkways installed by Baltz and his team. Additional patio expansions with brick inserts completed this back yard renovation.



Baltz states that choosing the right mixes, admixtures, and additives was critical for this project. The various mixes were #4000 to 6000 psi, with SOLOMON ULTRAFIBER-500 fiber reinforcement used universally throughout.

.....  
**BEST FINISHING - COMMERCIAL DECORATIVE**

**The Fountains at Gateway**

IMI, Irving Materials, Inc.

H Michael Hindman Architects

Marcor Construction

**T**he sitework for this project was designed with several different stamp patterns and four different integral concrete colors. In total there was over 900 yards of site concrete with 575 yards being integrally colored. Very neat project including an area that can be converted from a concert venue in the summer to an ice rink in the winter. The project includes an outdoor fireplace with walking trails lined by cast-in-place, integrally colored concrete benches at one end of the building and executive putting greens behind the main building.



# 2018 CONCRETE AWARD WINNERS



this look the homeowners achieved their goal. The concrete slab was prepared by filling the slab with crushed concrete material that meets the same gradation requirements as limestone base material. Once the subgrade had been tamped and vapor barrier placed, #4 rebar was tied on 16" centers throughout the 6" depth slab. The extra depth and rebar placement was used to help control unwanted cracks as well as multiple pours. The concrete was a 4000 psi stamp mix with integral concrete color for the base and a colored stamp release was used to obtain the colors the homeowners wanted in the floor. The floors really popped once the final touches were put on it and the homeowners were amazed with the final outcome.



.....

## BEST FINISHING - RESIDENTIAL DECORATIVE INTERIOR

### 22 Redwood Cove

Southern Concrete Products

THC Construction

Hurt Concrete Construction

**W**hen designing their new home, the customers at 22 Redwood Cove were thinking outside of the box. The homeowners wanted a floor covering unique enough to stand out but not too trendy that it would go out of style in a few years. Hardwood flooring has been around forever and with the unique design of stamping concrete to achieve



# 2018 CONCRETE AWARD WINNERS

## BEST PERVIOUS CONCRETE

### Mt. Juliet Dental

IMI, Irving Materials, Inc.  
Marcor Construction Inc  
Civil Site Design Group



This dental building had over 300 yards of Pervious Concrete in the parking lot. Mt Juliet has a 10 cent water runoff tax and if pervious concrete is used the owner of the building doesn't have to pay the tax. So Pervious Concrete was the Best application for this project. Marcor did a fantastic job with this parking lot.

## BEST ROLLER COMPACTED CONCRETE

### Alley-Cassetty Brick & Block Plant

IMI, Irving Materials, Inc.  
Robert Smith Inc.  
SEC Inc.



IMI in Murfreesboro is rolling its way into the world of RCC paving. With the help of our IMI Murfreesboro Plant team, Robert Smith, Inc. has just installed just over 3500 cubic yards of RCC concrete pavement at the Alley-Cassetty Brick & Block Plant in Murfreesboro, Tenn. Our team, with the support and leadership of project manager Andrew Smith, produced an average of 250 cubic yards per day.

A huge thanks is due to our Murfreesboro Plant team and the Quality Control team for their continued dedication to concrete material supply and paving excellence. Their hard work has made this project a rousing success.

We'd like to extend a special thanks to Bobby Brockman of Alley-Cassetty Brick and Block for his decision to work with IMI and to use RCC for this project. We'd also like to recognize Mark Lee P.E. with SEC, Inc. for promoting, marketing, and design for RCC pavement; and Andrew Smith from RobertSmith, Inc. for his work promoting RCC and for his continued valued relationship with our company.

As this is one of the first (if not the first) projects in Murfreesboro for RCC concrete placement, this project has given our Murfreesboro plant team a lot of well-deserved attention for their hard work. This project has already sparked an interest for two more RCC concrete paving opportunities within our area.



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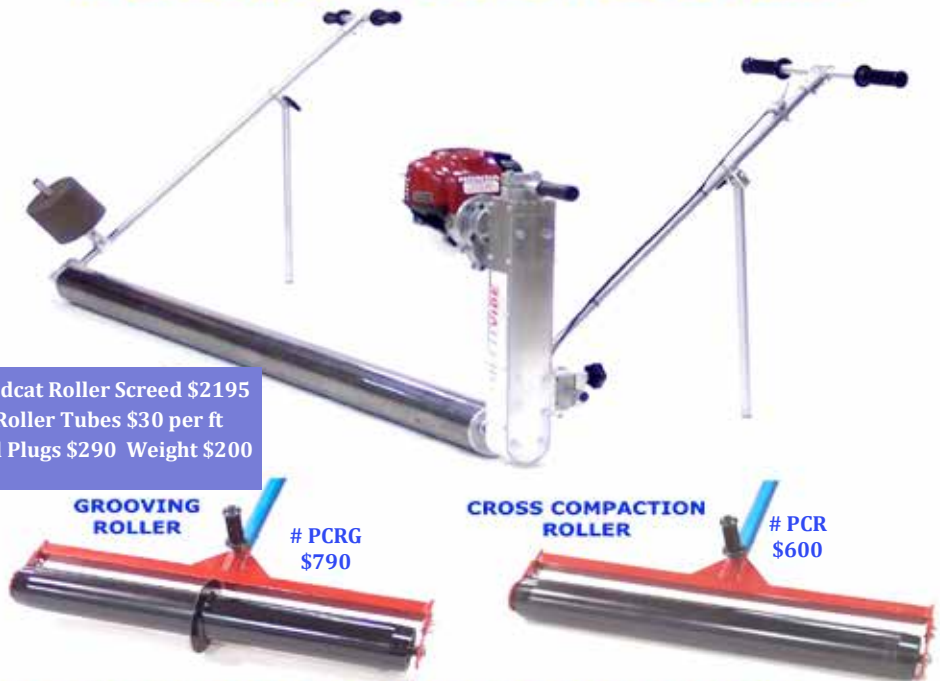


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# 2018 CONCRETE AWARD WINNERS

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## BEST SPECIALTY

### Cordell Hull Capitol Utility Connector Project

IMI, Irving Materials, Inc.

Centric Architecture

Guy F. Atkinson Construction

McMillen Jacobs Associates



**I**mi and Guy F. Atkinson Construction Successfully Complete Challenging Utility Connector In Nashville

The work beneath the surface that keeps a beautiful city running is often overlooked. While government employees continued their daily routine in the breath-taking Tennessee State Capitol building in Nashville, crews worked diligently

around the clock to complete the underground Cordell Hull Capitol Utility Connector.



The tunnel serves as a connector from inside the capitol building to a parking garage that is currently being constructed. The entire project included excavating a 430-foot long arch-shaped tunnel, deepening two elevator shafts, and excavating stairwell and mechanical shafts to tie-in to the new tunnel.

The project required 2,000 yards of shotcrete work, over 100,000 pounds of steel fiber, and 2,600 pounds of synthetic macro-fiber. The walls were constructed with a shotcrete mix that was comprised of an almost 9 sack mix with 75 pounds of steel fibers, 10% silica fume, and heavy doses of hydration stabilizer for retarding purposes. Penetron Waterproofing was utilized with Grout for the tunnel's wall liner to help mitigate water transmission. BASF Macro Fibers were used as well for secondary reinforcement.

imi began working on this project in December 2016 by pouring concrete at midnight while blasting crews worked on the tunnel during the day. Crews devised a plan to drive trucks inside the 430-foot tunnel to feed the shotcrete pump directly.

This project is part of the complete renovation of Cordell Hull Office Building and the Central Service Building in downtown Nashville.





*First Place*  
**CONCRETE MEMORIES**  
KARINA ROVEY

**6-20-07.** That's the date carefully inscribed in the corner of the concrete deck off the back of my house. Written next to the date is my signature, along with the signatures of my three siblings' (mine in my shaky six-year-old handwriting). Our precious little engraving never ceases to bring a smile to my face every time I walk by it. More than anything, it brings back happy memories of all the work my family has put into our house and what it has become today.

When my family bought our current home, it was going into foreclosure and the property was an absolute mess. However, we embraced the "fixer-upper" motto and got to work. Bit by bit, we've fixed, cleaned, and beautified, with every step making the house more our own.

One of the final steps in adding to our house was building an all-concrete storm shelter. When I was young, we would have tornado warnings several times every year. My parents knew that the best way to keep safe from these dangerous storms was to build a solid shelter out of the strongest material out there—concrete. To this day, every time the tornado sirens blare and we head down to the shelter, I feel completely at ease knowing that I'm protected by its impenetrable walls.

And the great thing is, not only does our concrete shelter keep us safe, but its roof doubles as a back deck—the very back deck our names are written on. I can't even count the fun times we've had on that deck. It's hosted dinner parties, summer hangouts, and breakfasts; it's hosted ping-pong, soccer, and four square—and a myriad of chalk masterpieces. It's even held an inflatable pool full of water. Yes, it's that strong!

I know that concrete has served its purpose well for many others too. Back in the 1970s, my grandparents moved to the middle of nowhere in blazing hot Arizona to start farming. One of the first things they did was to build a shop to work on machinery. Before anything else, my grandpa laid down a solid concrete foundation for the shop that is there to this day. And guess what's written in the corner? 8-17-76—along with my dad and his brother's names (in their shaky five-year-old handwriting).

These etchings are more than just numbers and letters. They represent the people who wrote them and the blood, sweat, and tears that they put in to get to the point where they could write their piece of history into their piece of concrete with a sense of finality.

Often I find myself coming across others' names or dates written into sidewalks, benches, roads, or other concrete structures. I read them and smile, imagining what their story might be. I have no doubt that they, like me, my dad, and so many others, wrote that date and name with care and pride, forever entrusting their beloved memory to the firm embrace of concrete.

*Second Place* EMILY HUDGINS  
**CONCRETE AS ONE WORLD TRADE CENTER**

When I think about concrete, I think about concrete's significance throughout history as a building material. It sounded rather boring when I first thought about writing an essay on concrete. However, when I explored deeper, I realized that concrete has come to represent so much more in our daily lives. I realized that concrete has affected my life tremendously throughout eighteen years. Concrete has helped me to understand the differences of words in our language. Concrete has helped me to enjoy and appreciate art. Most importantly, concrete has helped me to understand how our nation perseveres and values freedom.

First, the word "concrete" has been used as a teaching tool in the classroom for many years. As early as primary school we begin to understand the importance of the word in language. Is a word or idea concrete or abstract? Concrete represents words that we can actually experience with our five senses. The entire concept is the reason concrete has its name. Concrete is the ultimate representation of this form and helps us to understand what is real in our lives.

Concrete has also been important to my life in appreciating art. Many beautiful things in the world are made of concrete. Many do not think of buildings as art, but I do. The Roman Colosseum and the Pantheon are both structured out of concrete made during the time. The Roman form of concrete included volcanic ash. Although the concrete of their day was weaker, these buildings have stood the test of time and we are in awe of their wonder and endurance.

Concrete has also been very important to my life in understanding the perseverance of our great nation. One day while I was contemplating whether to write this essay, my homeroom teacher said, "I have just realized that you all are the first class that I have taught that do not remember the horrific incident of 9/11." I thought about that statement and realized that she was correct. I was barely two years old when the terrorist attack happened. My brother is just three years older than I and he remembers where he was and what he was doing the day it happened. In fact, the incident is one reason why he pursued an appointment to West Point and longed to serve his country. The tragedy affected him that much. I contemplated, how did it affect me? I visited the 9/11 Memorial when I was in

# CIM UPDATE . . .

by Dr. Heather J. Brown

## ANNOUNCING LARGEST COMPANY DONATION

*to the School of Concrete & Construction Building Campaign*



**A**s an employer of 14 CIM graduates between Tennessee, Kentucky and Indiana, and nearly 50 summer interns, imi continues to support the school and students. With the help of their generous contribution, the School of Concrete and Construction is pleased to share it has reached 50 percent of its \$5 million dollar goal!

Tennessee Higher Education Commission votes annually on state funded buildings. Five million dollars will help us achieve twenty-five percent of the “brick and mortar” funding—positioning our building as a leader in the state for industry matched infrastructure. With tiered giving, the time to consider a multi-year gift is now. Can you make a financial pledge of support in 2018?

With this pledge, imi South President Kevin Swaidner said that imi “greatly benefits” from the efforts of CIM by employing graduates whose pride in their work make the company “better every day—in no small part due to the foundation provided at MTSU.”

## 2018 ESSAY CONTEST

junior high on our way to take my brother for a tour of West Point. I looked back and remembered what a vital role concrete played in both destruction and rebuilding. The dirt and the ash of that day, much of it the ruins of concrete, representing the destruction created by terrorism and hatred of our great nation. Then I remembered that we rose from this ash. Concrete played a great role in that process through the beautiful 9/11 Memorial and the new One World Trade Center. The new majestic building is constructed on a steel frame and is paired with a concrete-core shear wall.

Concrete means all of these things to me. My awareness of its meaning brought about through remembrance of such a tragic event. Concrete in language—something tangible such as a majestic building. Concrete as art—something beautiful stretching into and lighting up the skyline. Concrete as freedom—something representing that our nation will persevere. Concrete as One World Trade Center.

## *Third Place* BENJAMIN CHENOT **THE MATERIAL OF THE YEAR**

“Hear Thee! Hear Thee!” a strong, burly man bellowed with his metallic steel cape gloriously flowing behind him. The conference of all of the world’s materials had officially commenced. Vibrant chatter filled the room, with whispers and shouts all in anticipation of the annual, highly-regarded material of the year award. Steel, the previous year’s winner and now presenter of the award, came to the stage as a silence fell over the anxious crowd. With card in hand, a drum-roll began as he revealed the winner. The crowd cheered wildly; Concrete had won super material of the year! However, lurking under the audience’s gleeful applause was gossip and intrepidation from the other jealous materials who thought they deserved the sought-after title.

Aluminum, jealous of concrete’s immense structural strength publically declared: “Concrete is so heavy! How can anyone build with him when I am as light as a feather”. Concrete took to the stage and fought back, reviewing how concrete didn’t need to be light, as it could often be made easily from local materials. He wowed the audience by showing how concrete was even light enough to make boats in some cases.


Gold, Silver, and Diamond pompously displayed their lustrous finishes and beauty, shaming concrete for being so bland and ugly. Yet again, concrete fought back, showing the audience how polishing and impressment could make beautiful patterns and a seemingly infinite diversity of designs and textures.

Ancient Marble stood up and pointed towards how long he had been used in construction, building great statues and monuments. He shouted that his legacy had earned him a right to the award, and Concrete had yet to prove himself. Never without a strong argument, Concrete pointed towards his use in the Hoover Dam as well as the Roman Parthenon. He had utilization in both beauty and practicality, stretching from ancient times to modern day!


Young silicon got on his phone and texted everyone in the crowd: “Concrete is so old and outdated, it’s time to move forward in this technologically advanced society!” Concrete exclaimed that despite being used for centuries, he was still at the forefront of progress! He pulled out numerous scholarly research articles going over interesting concepts like carbon nanofibers being used to boost conductivity and lighter concrete structures being accomplished with Nano-concrete.

The excitement among the crowd increased as more and more heroes truly saw how “super” concrete was! An under-dog of materials, concrete had, just like the structures it forms, firmly stood up to attack after attack by the other materials. With the positives in building with concrete greatly out-weighing the negatives, the versatility and power of this material was appreciated, and many knew that concrete would be the material of the year for years to come.





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