

THE TOWERING SECTOR

CIVIL AND STRUCTURAL ENGINEERS BUILD TOWERING AND SOUND INFRASTRUCTURE.

The structural and civil engineering sector towers over all others. The massive infrastructure and construction projects they design, manage and execute are key to this country. They ensure their soundness and safety for all. They dream big and they build big. It's their creativity, imagination and expertise that keeps them in high demand.

Among those on the cutting edge of the civil and structural engineering discipline are the five STEM professionals featured here. All thriving in this sector, they discuss their work and why you should join their ranks.



Miaeh Turner is a senior project manager at Messer Construction.

Collaboration Is Key to Turner's Work at Messer Construction

Today, Miaeh Turner is a senior project manager at Messer Construction, which still surprises her upon reflection. "I don't come from a construction background, so I never imagined I'd be a project manager one day, but I sure enjoy my career."

So how did she come to a career she'd never envisioned? "I thought I'd give it a try through my first co-op, and thought, 'This is really cool. You get to make these amazing, huge things and you're so proud of them every time you drive by. The fruit of your labor and creativity is just so big and tangible,'" she answers.

When you build big, there are inevitably big challenges, though. "There's always some vast problem at the beginning of each work week, and it always seems solved by each Friday, she remarks.

"You can't let it stress yourself. I'm an upbeat person, the proverbial duck, with water rolling off my back. That really helps in construction."

It also helps to remember you've always got teammates behind you, according to Turner. "You collaborate with your team and come through, week after week after week."

Different projects require perpetual collaboration, which Turner loves. "I enjoy how each day in construction isn't the same, and how the team (trade partners, design team, owner) works together to tackle challenges. I also enjoy working with groups that differ in age/background from myself. The relationships that are built when everyone has a common goal breaks down the artificial barriers of gender/ethnicity/age, and you're able to develop genuine relationships with people you would've thought you had nothing in common with."

Turner's job has her collaborating with myriad experts again and again, as she manages the on-site operations building team for multi-million dollar construction projects, which includes safety, trade partner coordination, schedule, cost management, etc.

Managing and fostering all of that collaboration is an on-going challenge she enjoys. "Most of my engineering friends have moved from company to company. I haven't," she notes.

"I've been here for 10 years. When it's good, it's good. They treat you right. They've really encouraged my growth and given me so many opportunities, both professionally and in my community. You feel so valued here. They really want you to become your best professional self."

Want to join Turner at a company where you don't want to leave? Turner has some insight: "We seek candidates who are action-oriented and self-starters. It's very important they're motivated to learn as construction skills are developed over time with experience."

Construction skills are also developed via teamwork. "In the construction industry, meeting substantial completion dates is critical. At the end of the project, there are several inspections that must be completed by the fire marshal and building inspector. One of my projects was a high school renovation, and we were having challenges with meeting current building code requirements due to existing conditions of the school. Delaying the start of school wasn't an option."

To open school on time, the team redesigned their approach on the fly, according to Turner. "To accomplish this task, our trade partners, design team, and owner all collaborated to expedite construction changes that were needed to ensure work was completed prior to the school start date."

Messer employees don't just problem-solve, she further points out. They also grow each other's careers. "Messer Construction values growth of our employees. Throughout my career, helping your team members grow is a major focus for all employees," she concludes.

Learn more about Cincinnati, OH-headquartered Messer Construction via Facebook, Twitter, and LinkedIn. Explore open positions at messer.com/join-us.

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BY KATIE MCKY

HNTB's Gilbert Pushes Herself to Be the Best

As PE group director, transit and rail vice president, for HNTB, Kimberly Gilbert is responsible for directing project priorities, staffing schedules and assignments, and ensuring that HNTB delivers the best design capabilities to meet its clients' needs for transit and rail services in Washington DC, Maryland, Virginia, and West Virginia.

One of approximately 5,000 employees, Gilbert enjoys the scale of HNTB's projects and the size of the challenges. "HNTB challenges you to push yourself to achieve the best work possible for you and your clients. This may mean there are times when you're uncomfortable, but that can present tremendous opportunities for growth. There also are well-established support systems throughout the firm to provide insight and guidance whenever needed."



Kimberly Gilbert, PE is the group director, transit and rail vice president for HNTB.

HNTB looks for particular traits in its employees, those qualities that enable engineers and IT professionals to meet challenges with aplomb.

"You have to listen well," maintains Gilbert. "You have to listen completely so you can be open to input and suggestions from others. This will allow you to make the best decision available."

You also have to have a solid core, which means being honest, ethical, candid, and fair, according to Gilbert. "This is paramount in how we work with our clients, as well as each other as employee owners."

“ You have to listen well. You have to listen completely so you can be open to input and suggestions from others. This will allow you to make the best decision available.”

Technical excellence is another prerequisite for success at HNTB, she notes. "Excellence in knowledge of your profession and understanding of the requirements and skills are needed to do your job. This will ensure quality work is completed, and that you're delivering extraordinary value to your client."

Gilbert had experience manifesting grace under pressure before she came to HNTB. "I began my engineering career at a firm that didn't have a lot of diversity. As a result, I felt internal pressure to work harder to prove that my engineering degree was just as valuable as those of my colleagues. This meant time spent on many nights and weekends double-checking my work and reading up on projects so no one could ever say I wasn't prepared, or my work product was subpar."

That drive to excellence has stayed with Gilbert. "That experience has driven me throughout my career, and, although I sometimes still feel that internal pressure to prove myself, I've been able to use that energy in a positive way to become the best engineer I can be."

Gilbert encourages all new hires at HNTB to forever push their envelope. "Never stop learning. Read, ask questions, and always push yourself to be your best."

Sometimes achieving the best result comes from recognizing that no matter how hard you work and how much expertise you have, someone else might have a better solution.

"There's always more than one solution to a problem. No matter the situation, it's important to listen and learn from others because your solution isn't always going to be the best one available," she points out.

"Flexibility in these situations is important. Sometimes you'll make mistakes, but you'll learn the best lessons are learned from the mistakes you make, but you must be open and humble enough to learn from them."

Learn more about Kansas City, MO-headquartered HNTB via Facebook, Twitter, LinkedIn, Instagram and YouTube. Explore open positions at hntb.com/careers.

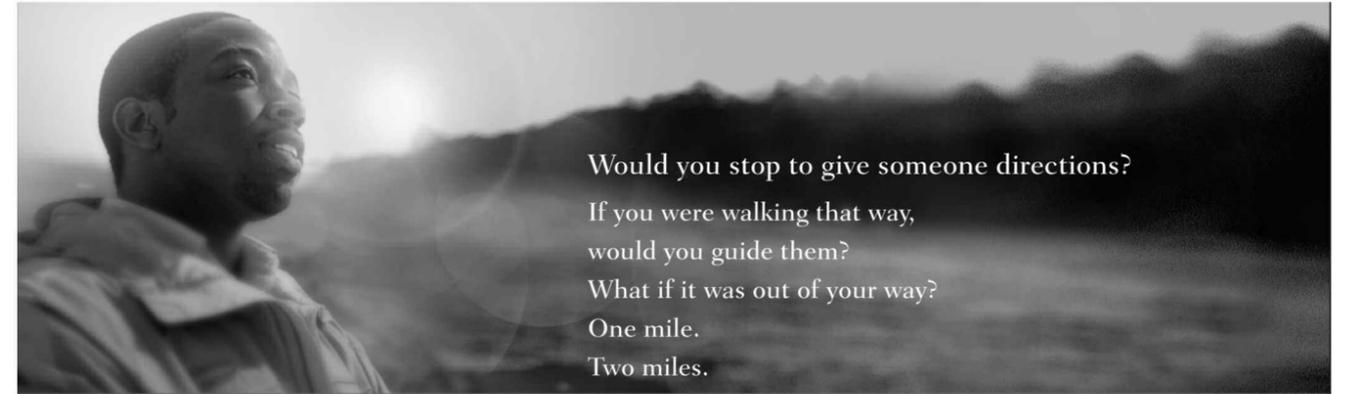
Ricketts Fuses Technical Know-How & Creativity at CDM Smith

As a mechanical engineer for CDM Smith, April Ricketts designs mechanical systems for buildings to remove or add energy, and to temper air and humidity to spaces, thereby making them a more comfortable and healthy environment. It's work that keeps adding to her skill set.

"It's introduced me to many types of design scenarios, and it's given me the freedom and flexibility to grow as an engineer," notes Ricketts.

One of approximately 5,000 employees worldwide, Ricketts finds her work has her using both lobes of her brain, for mechanical engineering in the construction sector requires both creativity, as well as a firm understanding of math and science.

"I've always enjoyed drawing, and I think that my creative side, as well as technical side have helped in finding 'out of the box' solutions that might not have been apparent without the



Would you stop to give someone directions?

If you were walking that way, would you guide them?

What if it was out of your way?

One mile.

Two miles.

Two thousand miles,

directly inland from the Skeleton Coast,

to a one-room schoolhouse in the foothills of Namibia.

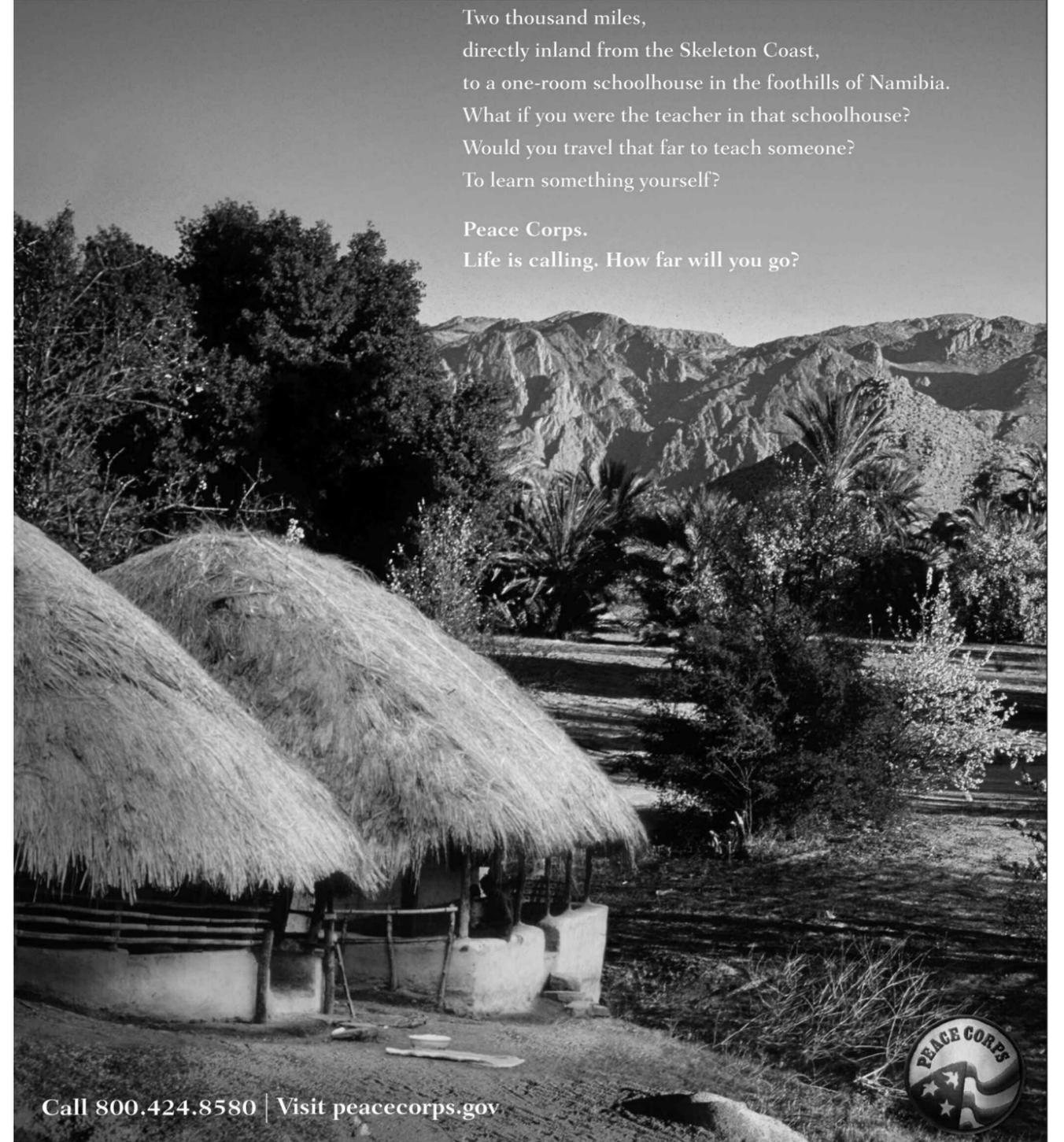
What if you were the teacher in that schoolhouse?

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merging of both sides," she shares.

Ricketts also had to muster some emotional and social suppleness when she moved from a smaller company to a bigger one. "It was hard when I changed companies, moving from a smaller firm to a much larger one, and having to learn and navigate through corporate standards and procedures," she recalls.

So where did Ricketts turn for guidance? "Thankfully, I was able to make the transition with help from mentors," she replies.

If you, too, want to apply both of sides of your brain to devising solutions, then Ricketts points out CDM Smith hires people who are creative, enjoy problem-solving, and work well with others. It's a skill set Ricketts possesses, but when she was still in school, it wasn't one she thought would lead to an engineering career.



April Ricketts is a mechanical engineer for CDM Smith.

"I've always enjoyed drawing, and I think that my creative side, as well as technical side have helped in finding 'out of the box' solutions that might not have been apparent without the merging of both sides."

"When I started college, I didn't originally plan to enter the engineering field," she remembers. "Fortunately, I had a lot of encouragement from family, friends, and college advisers (who had more confidence in my technical aptitude than I did at the time) to challenge myself to pursue a STEM career path."

Since then, Ricketts has never looked back and never wondered if she chose the perfect path for her.

Learn more about Boston, MA-headquartered CDM Smith via Facebook, LinkedIn, Instagram, YouTube and Twitter.

Explore open positions at cdmsmith.com/en/careers.

Ali's Affinity for Construction Shows in Her Work at Mortenson

As a field engineer for Mortenson, Amal Ali provides overall site support during construction by serving as a point of contact for the subcontract workers. She also manages the submittal and request for information (RFI) processes, as well as the project schedule.

Mortenson has 7,500 employees across 11 offices and the field, but they all have excellent communication skills, teamwork, responsibility, and accountability in common because Mortenson hires people with these traits, according to Ali.

Once hired, you can get busy climbing, adding to your skill set via an array of projects, she notes. "What I like most about Mortenson is the numerous opportunities available for growth, as well as their versatility."

The complexity of some of the projects might overwhelm, at first, but seasoned hands will show you the way, Ali asserts. "At the start of my first ever project in construction - The Foxconn Data Center - I had trouble understanding the overall construction process and my role in it. It was through the help of my team members and mentors I now have a more clear understanding of the job and my role, which makes my job a lot easier."



Amal Ali is a field engineer for Mortenson.

"I enjoy the challenges that are thrown my way. It makes every day interesting and exciting. With every new challenge, I learn so much."

What also helps is the fact that construction is in Ali's blood. "I was introduced to construction through my dad. He's been an independent contractor most of his life. Throughout my childhood, I'd assist him with various tasks. Ever since I was a kid, I found construction to be fascinating."

Construction continues to be fascinating for Ali. "I enjoy the challenges that are thrown my way. It makes every day interesting and exciting. With every new challenge, I learn so much."

Learn more about Minneapolis, MN-headquartered Mortenson via LinkedIn, Twitter and Facebook. Explore open positions at mortenson.com/careers.

Bhargava Leads Seamlessly at Skanska

Anubhav (Abu) Bhargava is vice president of operations at Skanska, as well as a specialist in the construction of labs and biotech facilities.

"My primary role is to lead my teams seamlessly through complex projects from start to finish - that includes everything from pursuit to completion, and then continuing to manage important client relationships once a project is delivered," Bhargava details.

Skanska, as one of the world's leading construction and development companies, has the resources and reach to tackle the toughest projects. It has offices in 28 metro areas with 7,900 employees nationwide.

"The firm's core operations include building construction, civil infrastructure and developing self-financed commercial properties, which together generated \$7.6 billion in revenue in 2019."

As vice president of operations at Skanska, Bhargava has a hand in hiring many colleagues and in promotions, too.

"The key traits I look for in current and future employees are confidence, the ability to work effectively with a team, and a willingness to make and learn from one's mistakes. That last piece being the most important, as making mistakes signals to me that you're trying new things," he points out.

When Bhargava interviews a potential new employee, their previous technical experience matter less than their strong soft skills and their ability to operate efficiently in a cross-functional team.

"We're always looking to bring in fresh, different perspectives that will provide new insights and approaches to our work. The more well-rounded we are as a team, the better we can serve our diverse clients and their specific needs," he notes.

If you're hired by Skanska, then you'll find a lot to like, according to Bhargava. "Skanska is a multifaceted, values-driven firm with exceptionally smart people working in every area of the industry, but what I appreciate most about working for the firm is the unwavering support Skanska shows its employees."

All of Skanska's entry-level employees go through a unique internal rotational program that allows them to get a sense of all of the different facets of Skanska's work, and gives them a voice in the area they feel most valuable and engaged.

"Through this program, new employees at the start of their



Anubhav (Abu) Bhargava is the vice president, operations at Skanska, and a specialist in the construction of labs and biotech facilities.

careers get crucial, hands-on experience with a number of different project types that then enables them to better understand and work effectively within the larger company framework. I've always been proud to work for a company that places such strong value on its employees."

Graduating from college, Bhargava applied to work at an IT company. He wasn't hired.

"Having diverse perspectives on my teams is incredibly important, and I look at diversity in all different ways - gender, educational background, religious affiliation, etc. All of these factors make up an individual's distinct personal experience that adds immeasurable value to our team and our equally diverse clients."

"At the time, I was upset, but looking back I'm grateful I ended up in construction where you not only get to see progress every day, but you can also look back and reflect on the projects you did even 20 years ago. With technology, you can develop a piece of software, but as soon as a newer version or innovation comes out, it becomes obsolete."

If you want to rise high in your career, then follow Bhargava's advice: "I was willing to move locations. Of course, everyone has to do what's right for them, and it might not always be easy to do if you've established roots with family in one place, but the opportunities that can become available to you if you're willing and able to move locations are endless."

Moving lets you be in the right place at the right time, as well. "I've found tremendous opportunity over the years embracing this mindset," he adds.

You, too, are likely to find tremendous opportunity at Skanska, which embraces a diverse workforce, according to Bhargava.

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Learn more about New York, NY-headquartered Skanska USA via Facebook, Twitter and LinkedIn.

Explore open positions at usa.skanska.com/who-we-are/careers.