



TRANSPORTATION SPOTLIGHT

PROFESSIONAL: TONY KRATOFIL

NAME: Tony Kratofil, PE

COMPANY: Michigan Department
of Transportation

TITLE: Metro Region Engineer

COLLEGE: University of Michigan (BS) &
Central Michigan University (MS)

DEGREE: BS Civil & Environmental
Engineering, MS Administration

Q: How did you select your certification program or college major?

A: From a young age I was always interested in building things. At one point, in early high school, I was considering architecture. But after discussing this career path with counselors and professionals, and I learned about what it took to become established as an architect, I decided by the end of high school to pursue Civil Engineering instead.

After working for several years at the Michigan DOT, I saw the opportunity to influence and make decisions about what work we did and how we accomplished it. Consequently, I started to prepare for future opportunities in management. My wife had recently completed her MBA, and I saw the benefits she received from that experience. So I decided to pursue a Master of Science in Administration degree (part time, night courses), since it seemed to touch on many of the same points, but probably applied to the public sector more than an MBA.

Q: What was the biggest influence in your selection of major/career pathway?

A: My maternal grandfather was a civil engineer. While I can't say he had a huge influence on me in terms of directly encouraging my career choice, at a young age I was often inspired by the "big" multi-layered infrastructure that I saw in the city when we went to visit my grandparents, and that was probably the genesis of my interest in building

things. My father was a math teacher too, so that foundation of analytical thinking and creative problem solving has always been appealing to me.

Q: What attracted you to the transportation industry?

A: When I was in college for my bachelor's degree, I concentrated my studies on structures, and always thought I would be more involved in vertical construction of buildings and towers. But when I graduated, the economy was not very good, and the companies that do that sort of work were not really hiring. So, in the interest of having a job where I could use my engineering education, I looked at several DOTs. Once hired at Michigan DOT, I really enjoyed learning about transportation and designing roadways. After a few years, we were at the infancy of the asset management movement, and that excited me, because I often wondered why we were doing the projects that I was designing. This gave me the opportunity to get more involved in scoping and decision making about the projects we programmed and eventually built.

Q: What is your favorite aspect of your job?

A: I like being able to make a difference - to see a problem or issue that needs to be solved and then being in a position to pull the resources (people, funding and technology) together to find a solution. Transportation is everywhere. You don't live a day of your life without interacting with the transportation system. And in doing so, you can see and experience



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the things you have accomplished or are working on and realize the impact that you are having. My work has a very tangible sense of job satisfaction.

Q: How do you/your company make a positive impact on society/our community?

A: As I noted before, transportation is essential to everyone's ability to participate in society. When you keep elements of that system in good repair and safe for travel, you are enabling people to enjoy a high quality of life and you are facilitating the economy; you are facilitating the exchange of people, ideas, goods and services.

Q: What's the most interesting thing you have been able to do in your professional career?

A: There are many things really - many very different things - that stand out as experiences that I never would have expected, but that have been great learning experience for me.

One experience was being involved in the planning, design, and construction of a new interstate freeway interchange/connection to the Ambassador Bridge in Detroit. Most people don't realize that the Ambassador Bridge is entirely privately owned and operated, which adds many new layers of complexity and relationships to building and operating infrastructure that would

boggle the mind. Not only was it an amazing learning experience

to work through those, I learned a great deal about the legal system, as we had to go to court (over 30 times!) to enforce the terms of our contract with the owner. Being a part of the litigation,

and learning to negotiate and think like a private owner would in order to anticipate their approach really expanded my perspective.

I've also had the opportunity to explore and implement many innovative contracting techniques over the course of my career. I have been fortunate to work for an agency that has always embraced innovation and creativity, and was not locked into just one, standard way of solving a problem. I have been able to develop and advance numerous innovative procurement processes to solve complex problems and ensure that unique, important goals were given the priority then deserve in quantifiable ways, including use of design-build, performance based contracting, best value contracting, public-private partnerships, and a variety of contract incentives to encourage innovation and performance around key project outcomes.

In recent years, I have become quite involved in contractor and workforce development too - talk about something they don't teach you in engineering school! But when we are making millions of dollars of investment in a community, it makes sense that the people in that community want to participate in that work and the economic benefits it creates. But achieving that objective is very complex, and requires overcoming many technical as well as cultural and societal barriers. I can't say we have found a perfect solution, but the chance to work with a whole new set of stakeholders to develop and try new approaches, and then seeing individuals and small business owners actually grow and succeed is extremely rewarding. It takes concrete and steel and brings it to the human level, where you are helping people not only with WHAT you build or operate, but in HOW you go about building or operating it.

My involvement in Transportation Systems Management





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and Operations (TSMO) activities in the latter half of my career has been particularly rewarding. Since I had a stronger project development background early in my career, I purposely chose to get more involved in TSMO to learn more about technology and strategies to get the most out of our transportation infrastructure and systems. This interest led to opportunities to get involved in national committees, through which I get to meet, learn from, and develop relationships with peers all across the country. This gives me exposure to policy discussions and opportunities to interact with leaders in our industry, take on some leadership roles myself, and get involved in the latest technology and strategies for how people move—from complete streets for active transportation to connected and autonomous vehicles.

Q: What makes you get up each morning excited about your profession?

A: Every day, while my calendar may be booked with meetings and events, something new usually comes up – a new problem or issues to solve, a new opportunity to seize upon, a new challenge that will expand my understanding of our business or the people we serve. Not every day is easy, for sure, but every day provides an opportunity to grow.

Q: If you could go back to high school and select any elective course to take that would have better prepared you for college, what would it be?

A: When I was in college, and my engineering friends and I would walk across campus, we often joked about the psychology majors, as though that were some lesser course of study. I so wish now that I had taken some psychology classes and had a better appreciation for that field of study back

then. No matter what we do in transportation, we're dealing with people: co-workers, clients, business owners, the public, etc. Knowing what makes people tick, whether they are the people you serve or team members that need to get together and find a solution to an engineering problem, people skills are absolutely essential to being successful in your career. This is probably true of just about any profession, but because transportation affects EVERYBODY, I think it is especially important for the people in our industry.

Q: What advice would you share with K-12 students that are considering your profession?

A: Think bigger than what is right in front of you. Look for the connections between your immediate task and the big picture of what transportation does and who is being touched by it. You will find all kinds of opportunities to advance your career around things that you are passionate about, and that's what makes for an enjoyable career and life.

