

What is your opinion about the public’s perception of structural engineers? Provide suggestions for how structural engineers might increase recognition and general public awareness of the profession.

As a newly minted engineering graduate, I hit the ground with a spring in my step, ready to make the world a better and safer place. When asked what I do for a living, I would quickly answer (with a little too much swagger), that I was a structural engineer. I would wait expectantly for a few “oohs and aahs”, which never seemed to come. Time passed; “oohs and aahs” never materialized, and even more surprising, I heard whispers among peers that were troublesome. “Only someone crazy would pick to do this for a living.” I do not doubt that we all have a little crazy in us, but I was a bit surprised that even those from within our ranks were disillusioned by this industry. Below are **five simple steps** to improve the public’s perception of our industry:

One: The Principle of Virtual Work

The coronavirus pandemic turned the world upside down. When society seemingly came to a screeching halt, structural engineers across the country continued to chug along. Even during a pandemic, stiffness draws force, concrete cracks, and steel yields. The structural principles that unceasingly stave off the effects of gravity and disaster continued to be applied by hard-working engineers. Despite this constancy in our industry, if one were to ask what unanimously changed for all engineers across the country, virtual meetings would surely be at the top of the list. My advice here is simple: turn on your camera. Turning on your camera may seem a bit cheesy and perhaps distracting. Let’s be honest though, with how much we can sound like computer sometimes, it is likely difficult for clients to see us as anything but a robot if we let them stare at our name while we tell them why their 50-foot cantilever is not a good idea.

Two: Take a Section Cut

Have you ever met someone who is contagiously passionate about something? It is hard not to get caught up in what they are saying and hang on every word. Now, if we were to take a look inside and gage our level of passion for structural engineering, what would we see? It is fairly simple to distinguish an engineer that is going through the motions and getting work done with little to no satisfaction. It is even easier to find an engineer that is inquisitive, interested, and intrigued by structural engineering. Find what it is that keeps you going and capitalize on it. Our industry needs leaders that are enthusiastic about structural engineering.

Three: Positive Moments

An engineering professor informed us that positive moments make the beam smile. This was an “eye-roll” moment for us students, but there is a kernel of wisdom here. I have had the opportunity to work at an excellent consulting firm that places trust in me to accomplish the tasks I am given. I am astounded at how much I learn each day, and I am confident that I am not alone. Despite the positive moments I experience while I work on my projects, some of the most

memorable moments I have had during my time in this industry have come during conversations with architects, contractors, and owners on a job site. Some have even come during lunchtime, as I take a minute to catch up with my coworkers. It is amazing what you can learn about someone during a short conversation. Don't fall into the trap of keeping your head down, getting your work done, and clocking out.

Four: Plasticity

It is a cliché to say that we should “stretch ourselves”, but I think we should all be willing to be a little different today than yesterday. Elasticity is safe, but it keeps us coming back to the same point. Engaging with community members, volunteering for your local SEA, and serving the public in a position of leadership in your community are all ways to get past the monotony and change how structural engineers are seen. These opportunities will even more importantly change how we see ourselves. I know several engineers who have served in high profile positions of leadership despite their natural inclination to blend into the background. Their quiet sense of responsibility and guidance was encouraging for me. It is quite simple to generalize about different industries, whether it is the realtor with the fancy car, the businessman in his suit, or the structural engineer that spends his days with his head down. Typically, these generalizations are categorically imprecise. The difficult task is shaking up these ingrained perspectives, especially if our actions seemingly confirm what others think about our industry. By stretching ourselves a bit more into a variety of roles and volunteering, the structural engineering community will leave a positive impression on the public.

Five: Life Safety

The first “ethical responsibility” listed in the ASCE Code of Ethics is to “first and foremost, protect the health, safety, and welfare of the public.” It is stated that this responsibility “takes precedence over all other responsibilities”. I likely will not get to meet the future tenants of any structure I design. Even without this personal attachment, structural engineers work hard each day to protect the lives of others. Disasters make headlines and receive a lot of public attention that can reflect poorly on structural engineering. If the public could understand that it is the primary responsibility of structural engineers to ensure their safety, there may be a shift in public perception.

The structural engineering industry is fascinating. Even if there are too few “oohs and aahs” for me, I still enjoy the ride. It is time for the members of the structural engineering community to reach out to the public. To stretch ourselves past what we are comfortable doing. A client told me that it is my job to be the “the guy on the sinking ship that has the plug.” I am certain that our steady problem-solving nature can provide a much-needed boost to the public. Now, let me ask you: “What do you do for a living?”