

Introduction

As a practicing young structural engineer, my experience has been that the general public, outside of the construction industry, has little to no understanding or awareness of the structural engineering profession. Even after explaining my role in the design of vertical structures, I often get the response: “Oh, so you are an architect!” or something similar. I believe this lack of awareness is results from two main factors – historical precedence and lack of outreach – which are described in more detail below.

Historical Precedence

A precursor to the modern design team-general contractor system, the early *master builder* was responsible for each project from start to finish. Applying decades of wisdom, the master builder’s role was to design and build successful projects and create beauty in the built environment. These individuals were highly regarded by the public as both *artists* and *craftspeople*. As specialization became commonplace during industrialization, the *master builder* became the *architect* and *contractor*, leaving the engineer behind. In modern projects, where the success is incumbent on the knowledge and work of the entire project team, recognition for the success of the project (through plaques, news reports, ribbon-cutting ceremonies, etc.) is given only to the *artist* and the *craftsperson*; that is, the architect and the general contractor. As such, the public remains unaware of the contributions of the structural engineer.

Lack of Outreach

Structural engineers tend to be humble individuals, committed to taking part in successful projects but unlikely to seek recognition for their work. As a profession, our efforts are largely focused on maximizing public safety and serviceability through cost-effective design, through the development of standard practices, standardized building codes, education and training standards, and regulation in professional and structural engineering licensure. While noble and effective in achieving the stated goals, the focused efforts have often left out an important element: outreach.

Without educating the public about our profession, and the importance of our work, we have helped create an environment where the public lacks awareness of the importance of our profession. This lack of awareness can easily have negative consequences on the overall perception of our profession, because too often the only time structural engineers make the news is when failures occur. For those in tune with historical and current events, news reports following tragedies like the 1981 Kansas City, Missouri Hyatt Regency walkway collapse or the recent Surfside, Florida condominium building collapse might be their only exposure to the structural engineering profession. Moreover, owners or developers may not even give much attention to the structural drawings, unless elements of the lateral force resisting system disrupt an architect’s floor plan, or a contractor’s high cost estimate blames “structural elements” or “over-engineering” as the culprit (casting even more negative light on the structural engineering profession).

Increasing Recognition and Awareness

As discussed in the sections above, structural engineers have generally failed to educate the public and get the recognition we deserve as valuable members of our project design teams. Achieving stronger

public awareness will increase the perceived value of our profession, and allow us to “control the narrative” about our profession – that is, gain recognition and awareness for the positive contributions we make in our communities. There are two main avenues structural engineers can use to increase recognition and general public awareness of our profession: through personal interactions, and through branding and marketing; these two avenues are discussed below.

Personal Interactions

As individual structural engineers, I believe that we should do everything possible to increase public awareness and positive perceptions in our communities. Since we play an integral role in the design team on every project, simply taking a leading role in public events, like ribbon-cuttings and grand openings, can show the public that we are an equal member of the team. Engaging with younger people in the community, perhaps by giving presentation at local school STEM (Science, Technology, Engineering, and Mathematics) meetings, or leading groups of aspiring architecture students on construction site tours, can be a rewarding experience (for the engineer and the students!). These experiences can spread positive perceptions of structural engineers among the public. My past outreach with student groups of all ages has been some of the most fulfilling work as an engineer. As architects and the rest of the community gain a stronger awareness of structural engineers, and begin placing our profession in higher esteem, I believe the recognition will naturally follow.

Branding and Marketing

As a collective profession, NCSEA’s targeted Branding & Marketing Campaign for the Structural Engineering Profession is the perfect way to supplement our individual work (through personal interactions) to increase recognition and general public awareness of our profession. Too often it seems that other members of our project team (i.e. architects, other consultants, owners, and contractors) do not appreciate our profession, mostly due to a lack of awareness of the importance of our work and the skill and training required to become effective structural engineers. A targeted and effective marketing campaign will give us the ability to market and promote ourselves and our profession effectively with our clients and colleagues, without appearing self-serving. Essentially, I think the branding and marketing campaign will make it easier for structural engineers to promote and raise awareness of our profession within our communities, by helping us create positive public perceptions and supporting us in our personal interactions. As “brand awareness” of our profession is something I am passionate about, I am excited to contribute to NCSEA’s campaign in the near future through my Member Organization, SEAMT.

Conclusion

As a young structural engineer, I am very passionate about the work I do and am proud to be a member of the structural engineering community. I hope to attend this year’s Structural Engineering Summit so I can meet more members of my profession from around the country and gain more knowledge to become a better structural engineer. Thank you for your consideration for the 2021 Young Member Summit Scholarship.