K. Elizabeth Stevens: So, what do you like most about your work, your teaching in particular.

Kara Peterman: So, I can say that about the work in general, I truly feel like I learn something new every day. That's a common refrain from people who like their jobs. I feel like I can be learning about a topic I never even expected to learn about in my entire life in one day. Where especially the questions my students ask me, I can prepare my lecture, I can study my notes, and I can still never anticipate their questions. And so, that has taught me to be a quick thinker, but then also think about all the possible ways a student can come into the class, you know. What types of knowledge they have, what types of learning environments they come from, how they learn, how they see problems, and it's continually interesting for me to see how they approach things, and then try to adjust my sort of spectrum of possible questions when I teach the same subject again.

Stevens: I know you do assessments, structural engineering assessments, right?

Peterman: Mm-hmm (affirmative).

Stevens: Can you say, just describe what that is a little bit? You go on site visits?

Peterman: Yeah. It's something that we introduce every young engineer to, and I was introduced to this at Swarthmore. But even just a simple visit to a site under construction, to look at how it's being put together, and the choices that are made on site, and how one site differs from another. One thing I've begun to do now as a professor, now as an academic, is you know, for example, I was recently down in coastal Texas doing hurricane reconnaissance as part of an NSF team of researchers. And, we went down to the areas with the highest wind speeds. Not to be confused with the areas with the most flooding. The two were actually in different locations for this hurricane. We went around and did basically three days of surveying of structures that had failed, or collapsed, or been damaged by these high winds. That was a kind of a watershed moment in my own career, because it was a very practical, very immediate, very necessary thing that I could offer, thanks to all of the years of school.

And so, that's one example of things that we do. And of course, engineers in general in the field, and engineers who go and they get jobs as design engineers, that could be rehabilitation, that could be designing new things, and we've always tried to incorporate that into the education, whether it's going to a lab to actually see an experiment, or whether it's going to a site to talk to an owner. I have found in my own life, and my students find, and we continue to promote that nothing quite beats seeing it in person, and talking to the person around them, because the human elements, the human errors, the human factors are ultimately what dictates the success or failure of a structural design, or the success or failure of an experiment, or the success or failure of a new construction. So, we definitely tried to sort of impart that.

While the textbooks are correct, while researchers may agree on everything, ultimately the work doesn't get used, or the work doesn't get used correctly, if it's not fully vetted to the end person. You know, the actual person living in, or using the structure. So, kind of a roundabout way of explaining that type of assessment in that part, but as I said, in my own career it's everything from going to a construction site to actually see what's happening, to doing a test and talking to the people doing a test to see what they're doing, and then also post-disaster, being useful at tracking damage, and talking to the owners, and talking about what they experienced during the event.