

**Dr. Ann Schneider**

Hi Janet, nice to meet you again. Virtually. So I was reading a little bit about your background, and I'm very interested into how you became interested in working in the transportation industry and how did you get started in transportation.

**Janet Treadway**

So actually, my career with Ohio Department of Transportation started about 21 years ago. I worked in our Highway Management Division, and I was able to experience how our agency and all of the staff maintained our roads that were actually builder enhanced by our construction staff. So, like the snow and ice and all of the culverts and basically day-to-day maintaining of our roads.

But then I had the fortunate advantage of working not only with Ohio Department Transportation, I stepped out for a while, worked as a Consultant, and then I came back and started working in our construction department. So about 15 years I've been with our construction department and now I have the ability to work on the front end.

But I've also had a love for technology the entire time along the way, and I've tried to figure out ways to improve the processes or the experiences of each of those sides using technology with our staff.

**Dr. Ann Schneider**

I think that's cool. I was reading your background and I noticed that you do have a heavy emphasis on technology and bringing it into the industry. So, I think that's awesome. I like the idea that at the department you are leading the efforts, looking at e-Construction and how that can transform how Ohio DOT does its work. Speaking of which, Ohio is recognized as a leader in mainstreaming the E-Ticketing program, which I know that you're very involved in. When was the moment you realized it was going to revolutionize the project delivery approach?

**Janet Treadway**

I would say partly, unfortunately, the biggest driving force was the change came out of necessity from an impact with COVID. Prior to COVID, we had discussed E-Ticketing delivery options with our stakeholders, and a lot of our industry partners were using the same old answer of if it ain't broke, don't fix it. And a lot of that was true. We were making payments, were receiving materials.

What took as a necessity from COVID was the fact that we could continue to build roads and they could continue to deliver and provide material, but we could do it without that human contact and ensure that everybody was safe while doing it. Once they understood that the information was secure, they could provide information back and forth and that we could work together to do this.

I think that was the biggest moment that we realized that we could revolutionize both our side and our process of receiving, but they could on their side of delivering and in that ownership of it from both sides, I think that they were quickly able to adopt it.

**Dr. Ann Schneider**

Well, that's good. It seems like then COVID was the impetus, but then after everybody realized the benefits. They were able to move forward and recognize that it would be beneficial for all sides of the construction conversation. So why do you think that buy in is so important?

**Janet Treadway**

I think a lot of times when you have people that want to know that their voice is heard, their experiences are heard, their challenges are going to be not only heard, but we can help to work with them to resolve them. Every material is different, every technical knowledge of staff, of producer, suppliers.

We have some contractors and suppliers that are very large in size. They've adopted technology. They're willing to work with that. And then you also have the smaller mom and pop industries that are the DBEs (Disadvantaged Business Enterprise) that we need to make sure are not only included, but are successful, that they haven't been able to adopt the technology and don't have that full staff that others do.

So when you're able to incorporate almost that peer to peer or mentor and peer type of exchange and open up that communication, I think that they're able to then basically adopt it faster. They know that they're not just left out there without any ability to work successfully for themselves, but also to make sure that they can still continue to get those contracts.

**Dr. Ann Schneider**

I'm curious, so you do mention the DBE aspect of this. So have the DBE, have they been able to take advantage of this? And does that also help with the DBE compliance monitoring?

**Janet Treadway**

It does. I know some of the areas when you're talking about e-Ticketing, everybody thinks about the material, but there is so much more that is on that ticket. There is. Who was the producer supplier? Are they DBE? Who was the trucker? Were they DBE? All of that information coming from that electronic data of information on that ticket is something that the DBEs are now basically able to recognize, that if they've got a software where they're putting the ticket information in, then there are platforms available to help them extract that information without having to have a full staff available to them.

If they're comfortable using Excel, they're able to still deliver the information. It doesn't have to be an independent software. And I think that's been the biggest acceptance for them. They didn't necessarily have to change everything they did from day to still play in this field with all of these big companies.

**Dr. Ann Schneider**

That's cool. Did it also help with the payment side of it?

**Janet Treadway**

It has. So, the electronic delivery of all of this information, you don't have an individual receiving a ticket on a truck, taking it back either to their truck or to their field office to do calculations on and then submit for payment. You have an application, several of them that are out there, have applications that you are able to the producer, supplier or at the plant puts the data in. They're able to provide an aggregate of all of that daily ticket information to the project engineer.

It doesn't have to come from the field inspector directly each time, but it does have that way of processing through them in order. If there was a waste or maybe a truck that was turned back to deliver that information for payment. But that also helps with the payment or program oversight as well.

So, when tickets are captured each day for a singular project in an agency. You may have 15 projects that are receiving something just in one region, and then you can look at that whole program and are there anything that needs to change with the program oversight for that particular material or mixed design?

**Dr. Ann Schneider**

But that's one way that this e-Ticketing effort at Ohio DOT has helped with the accuracy of the data. Is there any other way that your agency benefit directly?

**Janet Treadway**

I would say that there's the benefit from not only having the information provided electronically for the payment side. It does help to ensure that we don't have staff that are directly in line with any of the material being placed. Any of those trucks coming onto the footprint of a project, they're able to stay back. They know that they can receive it on a device even a quarter mile or whatever away and be watching the actual placement.

Whereas the tickets, the truck drivers coming on site might be waiting in line in the queue, but they can be there where it's being placed and installed and still know that they can see that ticket information as it's being delivered to their project's footprint in the safety well away from the actual material being placed. That's been a huge benefit.

I think it's also seen as a benefit for the whole e-Ticketing process is the fact that you don't have that duplicate or triplicate entry. You don't have someone, I give you five tickets, you enter the data, maybe some reason that ticket has coffee or that ticket has material or what have you. And so where it was supposed to be a ten or an eleven, someone sees it as a completely different number. I think it helps us to provide more accurate payments, more timely.

**Dr. Ann Schneider**

That's interesting. And I like the idea that, excuse me, coming off of Work Zone Safety Week too, that there's this big safety aspect to it where you don't have that truck drivers getting out of their trucks and things like that could create less safe work zones. So, I like that aspect. Now, shifting gears a little bit, you're also looking overseeing e-Construction implementation at Ohio DOT. How do you see e-Ticketing fitting into the greater e-Construction movement?

**Janet Treadway**

So as you mentioned and asked before, how does the e-Ticketing go beyond just the material? There are several different aspects of e-Construction that we can work with. So, plans are starting to change. We're not having 2D plan sets anymore. We're going into 3D. How does those material tie into the receipt of that for that asset management going forward and delivering of all of the material related to that particular asset on, I would say Ohio's roadway system, but basically the national roadway system.

It's also one that we can make sure that contracts are compliant in the areas of DBE or commercial useful function, all of the other areas that people don't think about and that we need to make sure that we are federally and state compliant related to our contracts. Those e-Ticketing efforts also combine to that e-Construction.

We can have people that are closely advocating for not only the work being done in the field, but they can be monitoring the information that's being received related to those contracts. Are those subs being paid for the work that they're doing? So that e-Ticketing information while it's coming in, we can do it faster. We can do it better. I do feel that it provides data, like with the whole subcontracting information.

A lot of the traveling public doesn't think about everything that goes into I'm driving on my road today. However, if you look at was it an approved mixed design? It was. Was it an approved source? It was. Was that source a DBE? Or do you have to go out and do a review of that commercial useful function truck driver? All of that can be then on a device.

It doesn't have to be multiple books back in your truck or you don't have to bring several individuals out to do something. You can do it as one person with a device, a mobile device of any type.

**Dr. Ann Schneider**

So, that all makes sense. And I know that you're also involved nationally on the e-Ticketing initiative as part of the national e-Ticketing Task Force. What is your role in that group and how do you use that role to help other DOTs consider implementation of the e-Ticketing approach to managing material delivery and all of the benefits that go along with that?

## **Janet Treadway**

So, my role on the e-Ticketing Task Force is mainly to provide insight to industry partners of a DOT perspective. Many people understand that you can do things differently if you are a private industry compared to if you are a public entity. And we have a lot of rules and regulations and a lot of format that we have to follow. And so, sometimes when I talked about the fact of getting industry on board, it also takes the agencies to get on board to a new idea. We fall into the same trap of if it ain't broke, don't fix it, or we've done it this way for many decades, why do I have to change now? So, it's one that having a DOT perspective when you can hear peer to peer comparatively to hearing from more of a directive point of view.

You want to hear from people in your same shoes. You want to hear from people that they know all of the red tape that you have to go through in order to do something new. How did they do it? I would rather learn from someone and hear from someone who's been able to be successful at it than necessarily have people constantly hit those hurdles or those obstacles independently.

So, when we're able to basically speak together, which Federal Highway does a really good job of peer exchanges and letting us speak together as a community, that the community then can figure out the best practice. We don't have to necessarily reinvent the wheel every time. We can figure out ways that we can all be successful.

And quite honestly, if I'm doing something in Michigan or Pennsylvania or Indiana or Kentucky and West Virginia, if we're all doing it the same, then it's something that we know that we can all be successful at. All of our producer suppliers know what we're doing, all of our contractors know how we're handling it and it's not necessarily an independent way of thinking. So, I think it also helps to reduce the cost for all of that and it also helps us to all improve and achieve success faster.

## **Dr. Ann Schneider**

That makes total sense. And I'm also curious about the technology and the mainstreaming of new information in the industry and why that is so important in attracting and retaining transportation professionals. I listened to what you said about this isn't the way we always did it. And when I was a secretary, I used to hate it when people would say that this is the way it's always been done. But we do have a new generation of transportation professionals on the verge of entering into our workforces. And so, I'm just curious how you see this type of innovation and this approach to transportation, how that helps attract people to the industry.

## **Janet Treadway**

Well, I think if we were to bring any new graduate out, new engineer or any type of transportation specialist out and said here's how we've done it and we've always done it and here's a book that has triplicate carbon copy and here's your pencil and your calculator and your measuring tool. I think they would quickly turn around and find the next position. It is one that it's continued to improve. They are utilizing mobile devices and technology in school starting from kindergarten at this point. So, we have to continue to evolve. I think over the course of the last, I would say seven to eight years, we've been able

to adopt more and more technology. We are trying to figure out ways to increase what has been done and change it to a way of what could be done

We're looking at ways of being, at least at our agency, of being device or platform agnostic because you will have people that if you are an iOS user and you hand them android, they'll tell you ten things wrong with the device before they'll tell you what's wrong with the system. Or even use the system. So we've tried to be very mindful. I like that you brought up as being a secretary. That's how they always did it. I am of a mindset that every individual will have a way of storing things or retaining things in their mind. And so, if we can make sure that all of these things are configurable to them, they are more used to or more willing to use them.

I think that technology is also one that the engineers coming out or the newer transportation specialists coming out, they're not wanting to keep books in their truck. They want that one device that they're used to using. They want to be able to pull their plans up, they want to be able to pull up specs, they want to be able to pull up their contract information from that singular device.

So anytime we can deliver that along with measuring tools within the device, I think it's something that they are more willing to accept. And in some cases, they've been, I guess, embedded with so many technology options for themselves, they start to bring you ideas and ways to improve. So, when the agency is open to that and hearing them and possibly testing those ideas out, I think you can retain those individuals because they feel like they have a voice in the direction moving forward.

#### **Dr. Ann Schneider**

That makes a lot of sense. I'm interested in another aspect of this. So, I think you're probably experiencing the same thing at Ohio DOT that a lot of DOTs across the country are facing with workforce challenges, I like to call them, where it's difficult in this environment to develop and deliver projects and programs because we're facing some workforce shortages in key positions. And I'm curious if you think this type of technology can help address those types of issues. By making processes more efficient for the workforce that we do have and that we can leverage.

#### **Janet Treadway**

I definitely think streamline the processes, having them available to where when agencies bring on new staff, you are going to have those seasoned individuals that are quickly leaving that knowledge is leaving with them. And where you're able to utilize technology to make training videos, you're able to utilize technology to basically create workflow videos so that it doesn't matter if the individual is a seasoned employee with 20 plus years and has the ability to do it just by gut. But you have the ability of turning over that same technology to someone who is brand new. They can watch those YouTube videos or network pieces that they know that they can follow and meet the same requirements even if it's day one for them.

And I think that's been the biggest tool for Ohio is we're starting to build those training videos that basically it's a catalog of here's how I do my daily work report or here's how I accept my e-Ticket. What do I need to do with it to make sure I'm compliant for not only my contract, but the material acceptance and the payment process.

And we can bring people out that maybe didn't feel as comfortable before, but they're comfortable watching a video. They're comfortable even if it's in a snippet. They don't have to ask a question. And I think sometimes by human nature, we don't want to ask a question because we don't want them to appear that we don't know. But if I can step to the side and watch a video and then catch up, I think that they're more willing to take advantage of those opportunities.

### **Dr. Ann Schneider**

I really like that knowledge transfer aspect of how this technology can help revolutionize how DOTs do their work. So, that's awesome. One other thing I want to shift a little bit more gears on and that really is an interest to me. You are considered an innovative woman leader. And I can see from talking to you why. And I'm curious, I noticed I was looking at your background and you're involved with an organization, I think it's called LH Agenda and it looks like it's an organization to mentor women.

And so, I think I'm curious, from your perspective, what are the biggest challenges in attracting women into our industry? And then what advice do you have for young women who are interested in pursuing professions in the transportation industry and how would you suggest that they go about following in your footsteps and becoming a leader?

### **Janet Treadway**

One of the biggest challenges is definitely this industry has been male-dominated for many decades, but it is also one that depending on the experience that a woman has coming into it, we do think differently. I think every individual thinks differently and everybody has that voice or experience behind them that maybe isn't what the standard looked like several years ago even.

It's one that being the voice of this is how I've used this in my previous experience, is one that is now starting to be heard. I think that because technology makes you think in a different way altogether. It's one that people coming forward no matter what their life background has been, it's one that people use technology. People use technology at the bank or at the grocery store, wherever.

And it's one that you can bring to how would you address seeing items of work on a contract. And so, individuals, women that are at least for my experience, women that like technology, you're able to think a little bit differently. And having your voice heard is definitely one where experience, it doesn't matter if it came from technology and construction.

I have an employee that works with me and her background was working at a very large store that basically provided construction materials. She'd never been in the construction industry, but she knew how to deal with customer support, customer success. And so that is a big part of construction being

successful, delivering the message in order to make sure that all of the parties that are stakeholders within that contract understand what the next goal is and what the next goal is.

Beyond that, I would definitely support and try to figure out ways for women to work with other women who have already broke into that area. It's one that when you are able to mentor other women in that particular industry, that it can be a little bit harder from the start. But once you get your foot in, it is one that they really do stand up.

And I think that the numbers are starting to demonstrate that as well across the board. I can remember many years ago I would be the only female in the room. And I know that at this point in time, at least with my agency, there are several women in the room. And it's one that it's very nice to see, but it's also one that you need to not only, I guess, speak forward, but you also need to reach backward and help the next woman coming in.

**Dr. Ann Schneider**

That is a great approach to it. And I think that's fantastic that your agency is being a leader in that area as well and bringing women along and recognizing that it takes a whole lot of perspectives to build a meaningful and useful transportation system. With that, I want to thank you so much for your time. This has been very engaging and very educational. I really appreciate your insights and look forward to watching more of the work that you're doing there in Ohio.

**Janet Treadway**

Well, thank you very much. I really appreciate the opportunity. I think that it's one that anytime anybody gets to speak to what they're passionate about, it's pretty invigorating. I could have probably talked to you for hours, but it's one that I know that it is something that I'm very passionate about, and I love having the opportunity. So, thank you.