Welcome to The Hold Room with ACC: a quick update on all things relating to airport development as well as the Airport Consultants Council.

This episode is part of the Passenger Experience series hosted by ACC’s Terminal and Facilities Committee. In this series, we are collecting the experiences and perspectives about the future of passenger travel, including changing demographics (such as the U.S. population aging and becoming more multi-cultural), new technologies, labor, and supply chain shortages, and what the future may have in store. Thank you for joining us in the Hold Room!

Carrie: Thanks for joining us back again in The Hold Room. We're really excited to have with us today Paul Martin. Paul is with Dimensional Innovations, and, Paul, we would really like for you to just start off this interview by introducing yourself.

Paul: Thanks for having me. We're really excited to take part in this broader discussion. We're a 30-year-old firm, very well established in many other markets. Aviation is actually something of a recent focus for us. My name is Paul Martin and I am the Director of Transit. The Transit Practice within Dimensional Innovations. Traditionally, that has meant more like bus shelters, kind of a land-based transit. DI as a company, our mission, as we say, it’s to liberate people from mediocre experiences. Our main focus has been professional sports, but everything’s about an experience, right? So, if you’re going to an arena or stadium, you know, maybe we’ve done the Hall of Fame or the fan experience. For corporations, it might be a welcome center, where we’re telling your story. We do a lot of work in the cultural space. When we look at the aviation space, it’s very much a natural fit. We have been making a concerted effort over the last year. It really helps that here in Kansas City we have a brand-new terminal, single terminal, that is just absolutely fantastic. So, we have quite a bit of work in that and that was kind of a springboard to get us interested in this as a market.

Laura: Let’s dive a little bit deeper into something. Can you discuss a challenge or solution relating to aviation related topics or passenger experience?

Paul: Sure, and for us, it is all about that experience, and MCI (Kansas City International Airport) is the perfect example. Personally, I’m sure some of your listeners had to go through Kansas City or may be based here. You know, we went through Kansas City you’ve got this new airport that SOM designed, just brilliant, and DI was really fortunate to play a pretty significant role in this passenger experience, and it takes a lot of different forms. Right from the start, you enter into the single terminal. At the ticket counter, it’s very standard, you’ve got the big LED wall behind you, that was one of our scopes. And you know, in the background, what’s happening in terms of managing the graphics, the content we have developed, our own content management system that was really developed working directly with the airport. I was touring it with Justin Myers Deputy Director out there. At one point he just pulled it up on his phone and said, “Hey, watch this!” – and he could change the background, the content, because we had built that application up for him including working with the various airlines on the content itself. Really, it’s all about future capabilities, flexibility, you know, we’ve got about 300 feet of screen back there, and we built in the capability to
do a complete takeover, do animations, anything they may want to do in the future, making sure that the back end can handle that. That's [interactive graphic displays] largely invisible to the customer. It just looks nice. Working with the architect and the design team. If you're going between concourses, worked with The City [Kansas City] and the Airport Authority on some storytelling. They [the Airport Authority] knew when they created this new facility that they wanted to retain some history, tell the story of aviation in Kansas City. Built out a series of kiosks that have information boards and then also embedded video, you know, so the whole experience is about “Through the Ages,” what aviation has meant to Kansas City. There was a big push to bring out local flavor. So, just these little hidden gems kind of sprinkled throughout that give a better experience to the customers.

Laura: Oh, that's neat. I remember going through Kansas City, but I have a vague recollection of leaving security to go meet with somebody and then having to go back to security to get in. Is it like a long, elongated terminal, I think, right?

Paul: Well, the old one, yeah, it was a horseshoe. There were three different terminals, and it was designed in in the early 70s. There was circle parking. The whole idea was you could drive your car and park and in 5 minutes be at your gate. And it [the old design] did work that way Pre-9/11, but once you throw security into it, it's completely dispersed. So, you have so many gates there's no central location where you can handle that [security]. Physically, as a facility, it could not accommodate that.

Laura: So how did you accommodate them? It sounds like a big challenge as part of the project. How were you working through that?

Paul: We built a completely new terminal, so we demolished it.

Laura: Nice.

Paul: It was the only solution, honestly. So, from an architecture perspective, the old terminal was completely unworkable. There was a renovation, probably 12, maybe 15 years ago, doing work in the concourses, upgrading some facilities a bit with some better finishes in a way. In fact, some of the terrazzo floor that was put into the old terminal during the renovation was salvaged and used into the new one [new terminal]. It was a really nice touch.

Laura: That's awesome. So as part of this project, I'm sure one of our [ACC, The Hold Room] key initiatives is talking more about diversity, equity, inclusion and accessibility (DEIA), and so, I was curious how that played into the design of the new terminal and what kind of things that you implemented or thought of and incorporated as part of this?

Paul: Absolutely central, there was a mandate established by the city [Kansas City] that said we will be the most inclusive airport in the country, if not the world. So, right from the start, this was established before there was a design. So, everything on the design side was meant to cater to that. In terms of our [DI’s] involvement, we [DI] were really fortunate there was a thought about, “OK, how do you accommodate passengers that have anxiety about flying, first time flyers, maybe, people with dementia, or on the spectrum, anybody that, you know, has this anxiety or fear [of flying]. The thought was to create a simulation room, you know, really simulate the entire experience. And that [simulation experience] starts with getting a ticket, boarding a plane, going through a simulated flight. So, this [simulation project] is a really exciting opportunity for us [DI], because that's very much what we do and we can infuse technology and it is truly about the experience. This is super fun working directly with the
Airport Authority. You know, there are a lot of constraints obviously, just physically, what does this mean, in terms of what are you physically putting into the space. So, this is, if on the secure side of the terminal, it's something [the simulation experience] that you have to reserve just as a general public passenger. You can't just walk into this [the simulation]. It's very targeted to specific audiences. There's specific outreach for that. The way that we went about it is that “OK, we want to literally be having, you know, have the have the most literal experience you can.” That meant actually purchasing a chunk of a Fuselage Airbus A321. So, in our [DI’s] shop, we have that chunk of the plane, proceeded to do the entire build out. As an experience, you would make a reservation [for the simulation]. Somebody from the airport will greet you in the security line, walk you through security, go into this specific simulation room. We took an actual ticket kiosk. You punch in your code, and it-[the kiosk] spits out physical ticket. You then go to a scanner on the wall, scan your ticket, it shows your name, and get a green light and the door opens and you walk through. In reality, it's [simulation jet bridge] just a hallway, but with graphics, we have simulated that passage through the jet bridge to where you are boarding on the jet. Something that we identified, and I will say this, you know, there's a lot of research that goes into this, not just working with Airport Authority, but with healthcare professionals. As well in terms of thinking about what are things that can assist a situation like this. So, something that was that was identified, was typically when you're taking that step onto the plane itself from the jet bridge, there's a little gap. You know, everybody sees it [the gap between the jet bride and plane], and most people don't think anything about it, but for some people, that's very problematic. So, we actually did simulate that gap. So, you're stepping onto the plane now and you are in a real plane, everything is very realistic, and then the experience starts. You know, we've got a large screen display that shows footage of actors, flight attendants going through the entire boarding procedure. There's somebody from the airport is kind of guiding this experience. You're sitting in the seat, you're buckled up. You will notice out the windows you are seeing the environment around you. We [DI] put monitors in every window, so, now we're simulating backing away from the gate. There's an audio component now we're taking off. There's a rumble that you hear. You're in the air. You're going through clouds. You see different buildings as you're going up that are the actual Kansas City landscape. Then simulating a short flight. The entire experience is about 15 minutes. You go through a landing again, more flight attendant instruction. Very real experience. And it's [the flight simulator] just been overwhelmingly positively received. There's really nothing quite like it [the flight simulator].

Laura: That's incredible. Yeah, and I was impressed by the bold statement, you know, the goal to make this airport the most accessible in the country, or maybe even in the world, were there any specific criteria that had to be met? How do you measure that as you're going through the project?

Paul: That’s a great question. Yeah, personally, I'm not sure, you know, because we just played various roles within this, so at a higher level, that's an interesting question. Justin Myers was an incredible person up there [at MCI Airport] and he was a big driver of this, but like I said, it was mandated essentially from the city [Kansas City], so permeated through all of the design, you know, when you walk through there [the new terminal], you really feel it, you know, the bathrooms, just the openness, the art component is extraordinary, you know, there was a percent for art program that came into play. All of this plays into a very open welcoming vibe.

Laura: Very nice.
Carrie: What I think is intriguing to me is that there is a required need for health professionals to look at the experience and how you're creating it. I would be interested in learning, like, what types of considerations they're putting forth for this research.

Paul: Yeah, this is really interesting, and we [DI] have done a lot of work in the healthcare industry, and what we're finding is this [healthcare design] correlates really well. When you think about it, it's kind of the same problem, right? You go to a hospital, you're in a waiting room, there's anxiety, there's boredom. It's no different as typical airport experience. So, we're [DI] really excited to be able to offer the whole suite of applications that we've built. These are all digital applications that were developed for healthcare and developed around solving this issue of anxiety and boredom. One of them is, in the waiting room. This was in a Children's Hospital facility in Cleveland, where we built a video wall, and we programmed it. We actually took our inspiration from the hospital's art collection. They had a specific artist that we ended up working with and using his color palette to create this huge color field. That you could manipulate through gestures. You can imagine you step up to this big wall and there's, you know, you're able to swirl colors with their hands. And this was a case where we did work with some of the healthcare professionals on this idea of calming. The way that we approached it was we could actually tune the sensors that are capturing your gesture to react best the slower that you move, right? So, you could imagine if you walked up to this and you're totally frantic waving your arms, it's actually not reacting to you. So just through biofeedback, you learn to slow your movements down, and slowing your movements, you're slowing your heart rate it has a calming effect and you don't even know it. It's also one of those things that, because it was a waiting room application, we didn't want to make it gamified to where you felt like you were missing out on something if you had to walk away. We've done other applications where we wanted it to be totally immersive. We did a Children's Transfusion Center, you can imagine this is a facility where, on a monthly basis, kids are going in, having a needle stuck in their arm for a couple hours, you know, really grim experience, so in that case, we wanted to build something completely immersive and that was achieved by again through a gaming engine developing an entire environment. This [gaming environment] is reflected on a whole series of screens. There is a game that you play. So, on your phone it's a specific application that we've built. You scan a QR code, it pops up, you have a character that you can embellish, you know. So, you choose a character, you give it certain attributes, colors, different things, you give it a name, like, that is your character. You have authorship in it. The character gets popped down into this environment that we've created along with all the other characters of all the other kids in the room, and there's some interplay between them [the characters]. We [DI] always like to mix the physical and the digital. We built a physical tree structure in the middle of this facility that is imbedded in LED's and that's part of the gameplay, so you know, really like taking these kids out of their environment in this case. So, these are things that we have been talking to a lot of the airports about, and getting really positive receptions, what we call “positive distractions.”

Carrie: That's very cool. Using positive distractions for that environment of like a Children's Hospital, and in airports, what we're seeing is a lot of the aging population is now beginning to retire, they're traveling. I am curious if you have strategies for that type of demographic?

Paul: I think it's the same issue at the end of the day, in terms of, you know, capturing people's attention. What we're [DI] trying to achieve in a lot of these applications is like I said, distraction, right. So, we're not, we're not trying to correct the medical condition, but just taking people's minds away that applies across ages.
Laura: I'm curious, so, from your experience with this and the other experiences that you've involved in over and over. Do you have any recommendations or anything that you think should become a standard practice for aviation to be able to help facilitate change in the industry?

Paul: You have to establish that at the very beginning, stating upfront that has to be fully inclusive. As a fabricator and designer, and on our end, it's having that that attitude and knowledge upfront and how to apply that, but then it has to be enforced on authority side as well.

Carrie: Right, for this example with Kansas City, are you seeing interest in other facilities exploring this type of technology?

Paul: Absolutely. It has really resonated. Authorities [Airport Authorities] are understanding the need, you know, you have to administer it. It's a real commitment on the authority side, but having said that, everybody loves it. Airport planning is years and years out, so it takes a while for these things to come to fruition, but we've seen a lot of interest.

Carrie: Totally, that makes sense.

Laura: What are you looking forward to now?

Paul: That's a good question. We are always responding to clients’ needs. We're not coming into the market saying “Hey, look at what the DI's come up with!” You know, like everything that we [DI] do is a response to, you know, typically a design problem. For airports, these are big problems. It's a common problem and you know support and anxiety things like this. So, for DI it's always going to be centered on the experience. We're always looking for ways that we can implement something to better that experience. This is where we like to work directly with the design teams. We are involved early on in their design process. We are usually consulting. Working with the physical space, what are things that we can implement to get passengers a better experience.

Laura: Awesome!

Carrie: Very cool.

Laura: Well, Paul, thank you very much for joining us. Today in the hold room.

Paul: Thank you.

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Wendy: Thanks for joining us in the hold room for this special podcast series exploring the new passenger experience. You can find more from this series on the ACC training hub that's training.aconline.org/The-Hold-Room, or wherever you get your podcasts, including Apple Podcasts, Spotify, etc. Follow us for more content from the Airport Consultants Council. You can support this podcast by leaving a rating or review and by telling your friends and colleagues about the podcast. Thanks again.

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