



First Americans Museum
OKLAHOMA

First Americans Museum of Oklahoma Takes
Guests on an Immersive Storytelling Experience
with Massive dvLED Video Wall System

CASE STUDY
SEPT 2021



2021
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SYSTEMS CONTRACTOR NEWS
INSTALLS
OF THE YEAR



The [First Americans Museum](#) (FAM) of Oklahoma is the first of its kind as the only place in the United States where visitors can experience and learn our shared American history through the lens and collective stories of 39 Tribal Nations in Oklahoma today. Within a 175,000 square foot space located at 659 First Americans Boulevard in Oklahoma City, the museum takes visitors on an immersive and powerful storytelling experience of diversity, resilience, and culture through state-of-the-art exhibitions, artifacts, photography, live educational programs, discovery center, and a completely unique centerpiece curved direct view LED (dvLED) video wall.

In celebration of its launch in September 2021, the museum planned a week full of thrilling events, including a 45-minute fashion show that featured original content on the newly installed video wall in addition to performances from the Oklahoma City Ballet and nationally renowned poets and speakers.

The Challenge

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Controversially challenging in both building and architectural aspects, the museum has been in the planning stages for over 20 years by the State of Oklahoma, the City of Oklahoma, and the tribal nations themselves. Initial discussions started in 2018 surrounding the construction of a giant, suspended, and curved dvLED video wall designed to wrap around the center of the museum. The objective was to create a gathering space for live music and performances that mimicked the center of a tribal village and allowed for “The Exchange of Ideas.”

IT design consultancy [Waystone LLC](#) was tasked with bringing the concept to reality, designing a video wall solution that was not only technically feasible but also pushed boundaries in terms of creativity. As the central point of contact for the museum, Waystone LLC hired Oklahoma City’s leading AV specialist, [Ford Audio-Video Systems, LLC \(Ford AV\)](#), to manage the AV portion of the project from start to finish.

The project’s uniquely shaped video wall made it essential for Ford AV to select a reliable mount manufacturer, with years of expertise in custom dvLED video wall solutions. Ford AV asked its long-standing partner of 20 years, [Peerless-AV®](#) for assistance in making the complex idea a reality. The design consultancy started in 2019 in cooperation with the team at [Absen](#) based on initial drawings for 192 Acclaim Series panels in a 6-degree concave design. Peerless-AV was contracted to design a custom fabricated mounting system that could accommodate the curvature of the wall and support the total video wall weight of 4,200 lbs.

“

This most certainly was no straightforward rectangular video wall. The installation and engineering of the dvLED video wall was highly challenging, but the Peerless-AV team was optimistic and confident that they could do anything to make the mounting system work successfully. By far the biggest concern was the curvature of the wall and the Peerless-AV team was instrumental in calculating the radius. The structure and weight of the video wall was also a challenge; three layers of ply were needed to make the curve which cantilevers out 6 feet from the wall, giving the effect of floating in the air.

”

**Courtney Meyes, CEO
Waystone LLC.**

The Solution

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SEAMLESS BESPOKE

Peerless-AV was also selected based on its flexibility, cost-effectiveness, innovative engineering capabilities, and superior customer service – all aspects of [SEAMLESS by Peerless-AV](#), the company's dvLED Video Wall Integration Program. The program ensures the entire SEAMLESS dvLED Solutions Team is available every step of the way, guaranteeing every customer receives quality product support and service.

The physical installation started the first week of May 2021. The Peerless-AV SEAMLESS Bespoke dvLED mounting system, custom designed specifically for this project, offers compatibility and exclusive support for the 192 Absen Acclaim 2.5mm dvLED panels.

Absen Acclaim 2.5 Series is a 2.5mm pixel pitch dvLED solution that provides outstanding full HD/4K image quality, true 16:9 aspect ratio, easy serviceability, and high brightness for indoor dvLED video wall applications, such as this. The slim design sits less than 10cm to the wall when mounted, and the size of the panels made it a flexible choice for the creativity and complexity of the FAM installation.

The Solution

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From the moment the teams arrived on site, the process was painstakingly methodical and meticulous to calculate the necessary adjustment for the wall curvature required. The first step was to install a plywood backing to create a secure base for the dvLED. From there, the team utilized a detailed CAD drawing, precise measurements, and a curved template, ensuring they were taking all the necessary steps needed.

“The installation was a challenge from the very start. One slight misstep in the curvature would throw the entire structure off, so the adjustment and placement had to be exact at every single point,” said a spokesperson at Ford AV. “Thankfully, Peerless-AV’s mounting system offers adjustability. The combined efforts of Ford AV and Peerless-AV helped make this installation such a success.”



Watch a time-lapse video of the installation at <https://vimeo.com/646917699>

The Results

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The installation exceeded the museum's expectations, and the Peerless-AV team delivered the perfect mounting system for the unique wall. To the engineers that completed the project, the frame offered a certain magnificence on its own and they knew its presence would not go unnoticed. However, a custom trim kit accessory from Peerless-AV was added around the sides of the video wall to give it that immaculate, finished appearance and meet the visual expectations of the museum's visitors.

The resulting, unique shape of the video wall is a visual delight, reflecting the character of the FAM and the playfulness of its designer, Courtney Myers. The inner rectangle space is visualized to be used as a place to put text or have animated characters popping in and out, tailored to the live performances planned to take place in front of this giant "backdrop."

Installation Quick Stats:

Absen Acclaim 2.5mm

190.68" Radius, Curved Wall Mount

192 Panels | 366 Modules | 5,929,200 Pixels

Total Weight of Video Wall: 4,200 lbs

The Results

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The content shared at the museum is fine-tuned to the video wall by internationally acclaimed New York media design company, Batwin + Robin Productions. Intelligent editing software provided by the company allows for content flexibility and creativity. Not only does this software allow the museum to quickly change content, but the museum can also utilize sections of the video wall to show different content, maximizing audience enthrallment.

“ The giant dvLED video wall is more than we hoped for! Since our opening, the Xchange theatre, as it is now called, has become a popular venue for demonstrations, singing, storytelling, and fashion shows. The dvLED video wall adds a truly special element to shows and performances with original and inspiring motion backgrounds, and also provides a means to thank our patrons for their support in making FAM a reality.

James Pepper Henry, Director/CEO
First Americans Museum of Oklahoma



With over 80 years of audio visual experience, our commitment to the creation of cutting-edge technology and standard-setting solutions has elevated us to the status of the industry's most innovative leader. Our Dedicated SEAMLESS dvLED Solutions Team sets the bar for high quality design, while achieving the pinnacle of aesthetic results. Our dynamic group of dvLED professionals include structural and mechanical engineers, product managers, project managers, installers, as well as sales and service personnel. The entire Peerless-AV® dvLED Solutions Team is there every step of the way to ensure every customer receives SEAMLESS product support & service.



EXPERT ENGINEERING & DESIGN

Our experienced custom engineers & support staff work in a think-tank style environment, creating new & effective solutions specific to your needs.



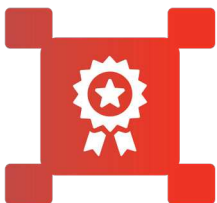
CUSTOM PROJECT MANAGERS

We provide a single point of contact, from the SEAMLESS dvLED Solutions Team, who oversees the project every step of the way, ensuring an ideal solution & timely delivery of your custom dvLED video wall solution.



FULL INSTALLATION SERVICES

When we say that we are there every step of the way, we mean it. Our SEAMLESS dvLED Solutions Team supports the installation, maintenance, troubleshooting & even, post-installation services.



SEAMLESS dvLED MOUNTING SYSTEMS

Our SEAMLESS dvLED Solutions Team exceeds industry standards, while achieving the pinnacle of aesthetic results. Choose between our Kitted and Bespoke Series dvLED Mounting Systems.

To learn more about the SEAMLESS by Peerless-AV® dvLED Video Wall Integration Program & mounting solutions, visit peerless-av.com/SEAMLESS.

About Ford Audio Video

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Ford AV designs, installs, rents and services professional sound, video and lighting systems for education, corporate, government, houses of worship, entertainment and sporting venues. Established in 1973, Ford employs more than 570 with offices across the United States. Recognized as one of the top audio-video integrators in the nation, Ford is known for installing some of the largest and most complex AV projects including ExxonMobil, AT&T, Houston Intercontinental Airport, State Farm, Fannie Mae, Apple Headquarters, Denver International Airport, Broncos Stadium, U.S. House of Representatives, West Angeles Church of God and the Cyber Warfare Integration Center for the U.S. Military.

To learn more, visit www.FordAV.com.



Absen Inc is the US subsidiary of Absen, a leading LED display manufacturer and is based in Orlando, FL. We provide our clients with high quality, innovative LED products at a great value. This combination of fantastic products with a knowledgeable sales team allows us to offer turnkey solutions with outstanding client experiences. Absen Inc also offers 24/7 service and support across the nation and our service representatives experience the LED manufacturing process from the point of creation and understand all aspects of design, performance, and maintenance. With thousands of installations across the USA, Absen Inc has quickly become the LED manufacturer of choice for a variety of prestigious projects. Highlights include sporting venues for the NBA, MLS, and NBC; casino installations for MGM Grand and Caesars Palace; premier events including the Ultra Music Festival, Comic-con, and the Emmys; and digital signage in the heart of NYC's Times Square.

To learn more, visit www.usabsen.com.



About Peerless-AV®

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For over 80 years, passion and innovation continue to drive Peerless-AV® forward. We proudly design and manufacture the highest quality products, including outdoor displays and TVs, dvLED and LCD video wall systems, complete integrated kiosks, professional carts and stands, and more. Whether a full-scale global deployment or high volume custom project, Peerless-AV develops meaningful relationships and delivers world-class service. In partnership with Peerless-AV, you are trusting an award-winning team of experts who will support your business every step of the way. For more information, visit peerless-av.com.



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