

MSG Sphere at The Venetian

Project Overview

The MSG Sphere at The Venetian, located at the Venetian Resort in the heart of Las Vegas, has become instantly iconic amidst the city's skyline. Known as the world's tallest spherical structure, this next-generation entertainment arena spans more than three football fields and can hold over 20,000 guests. More impressive than its capacity, however, is its façade, which also holds a world record: the world's largest LED screen, with dimensions of 19,000 by 13,500 pixels, and an LED panel exosphere that makes it visible from miles away. Completed in 2023, this \$1.8 billion project is intended as Madison Square Garden Entertainment's home for technology-forward concerts and events.



The Challenge

This project's difficulty lay in that unique digital façade. Covering a structure almost 500 feet wide, the MSG Sphere required access solutions that allowed maintenance and façade repair contractors to reach all surfaces. In addition, the electrical components for the external LED panels made it necessary for technicians to access those panels from inside the building. Any access solution would have to not only provide close contact with the LEDs, but also successfully navigate the entirety of the Sphere's curved interior structure, including the 2700-tonne steel roof and compression ring used to construct the building's distinct shape.



The Solution

Our Integrated Design Services (IDS) experts made this project an opportunity to innovate a brand-new kind of façade access solution. A Type-6 building maintenance unit, the Sphere's system features an articulating arm that places workers within two feet of requisite LEDs. By maintaining close collaboration with the Populous team, the client also identified a desire for workers to be able to easily maneuver to any point on the façade's interior surface. To address this, our team added a feature that empowers maintenance and repair contractors to program and select more than 3,000 positions on the structure. IDS experts also included a parallelogram system that increased both the accessibility and scope of its 142.7-foot jib.



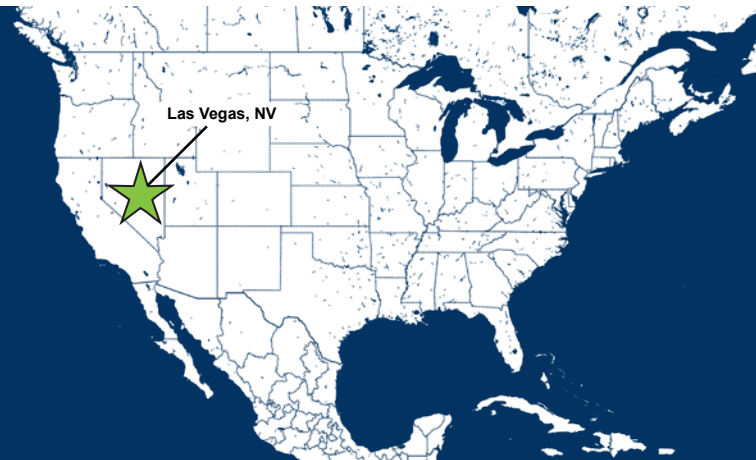
A Ground-breaking Testament to Integrated Design

The MSG Sphere is more than the world's most advanced entertainment destination—it encapsulates the idea that working with our experts as early as the design stage can lead to innovative solutions that meet safety compliance and maintenance needs without ever compromising on aesthetic vision.

Project Timeline Highlights

- **Commencement:** 2019
- **Completion:** 2023
- **Building Height:** 110 meters
- **Number of BMUs:** 1
- **Outreach:** 35.7 meters

These milestones are a testament to the strategic progress and collaborative synergy that have marked the project's journey towards completion.



Conclusion

Structures like the MSG Sphere demonstrate that a project's architectural possibilities are limitless. All it needs is an ambitious vision like yours paired with expertise required to deliver cost-effective, compliant, and aesthetically uncompromising access solutions.

To achieve these results, reach out to the Façade Access NAM team at your project's design stage. Proven in applications across numerous sectors, our experts can help you join the MSG Sphere as a shining example of the future of building façade design.

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