

At-A-Glance

The NFL's largest stadium kept seismic safety in mind during construction to achieve benefits of base isolation without being base isolated.



CASE STORY

SoFi Stadium *Inglewood, CA*

About the Project

At 3.1 million square feet, SoFi is currently the largest stadium in the NFL. Located in Inglewood, CA, it's the centerpiece of the 298-acre Hollywood Park, a mixed-use development project. It's also the first indoor-outdoor stadium and home to the Los Angeles Rams and the Los Angeles Chargers. It seats 70,000 and can expand to 100,000.

SoFi hosted Super Bowl LVI in 2022, the College Football Playoff National Championship Game in January 2023, and the CONCACAF Gold Cup Final in July 2023. It is planned to be one of the host venues of the 2026 World Cup, and it will co-host the Opening and Closing Ceremonies of the 2028 Summer Olympics.

Construction on SoFi began in 2016, and the stadium opened in September 2020.





Challenge

Prior to breaking ground, SoFi faced challenges from above and below—Los Angeles International Airport is only three miles away, and SoFi sits beneath two of its primary flight approach paths. The stadium is also just 500 yards from an active earthquake fault.

To comply with FAA height restrictions regarding the flight paths, the entire stadium needed to be about 120 feet below ground, requiring large-scale excavation.

To help contend with the potential seismic activity, CS was brought on early, initially to prepare some of the preliminary design work for expansion joint solutions alongside architect HKS. Because SoFi isn't base-isolated, after a seismic event, building components don't all necessarily return to their correct starting positions.

The design ended up being so complex that CS had to create a completely custom system—meeting the requirements pushed our own boundaries beyond anything we had done in the past, and it really challenged us in designing for building movement under these conditions.

Solution

This project offers most of the features of base isolation without being base-isolated.

CS manufactured 3,600 linear feet of customized fire-rated SSRW XHD moat covers and 600 SSR pans, each weighing approximately 2,000 pounds. To compensate for the lack of base isolation, CS designed the moat covers to handle drastic seismic movement and can be adjusted and reset easily after an event.

In a small area that required pans but would have left an awkward gap during everyday use, we supplied a custom crushable curb that covers the pans but allows them to move sideways during a seismic event.

Visitors to the stadium might not ever be aware of expansion joints, but during an earthquake, they can reach directly for one of our FGR seismic railings. These telescoping handrails move in and out and remain code-compliant during seismic activity. There are 45 railings installed throughout the stadium that vary in size, the largest of which is 10 feet long.

Entering the stadium, you will cross an expansion joint cover designed by CS; there's no way to bypass us, and that makes us feel safe.

Learn more about Base Isolation and Seismic Expansion Joint Solutions →