

## Challenge

This project contended with a unique and complex element; the elevation design was finalized before the ICF was decided on. This required the building team to work creatively to keep the articulation and visual details of the exterior similar without adding cost. Movie theaters are typically built using concrete tilt up construction but due to the small size of the site on this project, tilt up walls were not practical so ICF construction made building on the tight site possible. Cinemas always create a distinct architectural challenge in that the building is usually a large box shape with few windows or defining architectural features.

The contractor utilized material changes and color changes to give depth to the exterior elevations and extended certain areas to give emphasis to the corners and entry way. The use of faux wood softens the feel of the elevations and adds warmth to the overall design. In addition to allowing the realization of the initial design, the use of ICF shaved 30 days off of the construction time. The ICF installer on this project was exceptional in terms of their speed of installation and technical skills. The walls are consistently straight, plumb, and absent of voids and bulges across the entire building. The advantages of ICF in theatre construction are so strong, that the design team is recommending it for more cinema projects in the future..

#### **Project Highlights**

New construction 8 screen luxury movie theater

All exterior walls built with ICF with the exception of the storefront/curtain wall

Awarded Top 3 Heavy Commercial Finisher by the ICF 2021 Builder Awards

# **Project Stats**

Location: Carlsbad, CA

**Industry**: Heavy Commercial

**Size:** 33,368 sq. ft. (floor) **ICF Use:** 25,000 sq. ft.

Cost: \$9,997,007

**Total Construction**: 40 weeks **ICF Installation Time**: 22 days









"THE ARCHITECTURE AND CONSTRUCTION OF THIS THEATER ARE ABSOLUTELY FIT FOR THE LUXURY EXPERIENCE THAT IT IS AIMING TO PROVIDE."

XL CONCRETE & MASONRY

#### **Sustainability**

Due to the nature of operations and the large size of a movie theater, a lot of energy is used to cool/heat such a space. The Added R value of the ICF walls improved the buildings efficiency without the need for additional exterior wall insulation which saved costs on insulation expenses. This building also utilizes solar power to supplement their energy consumption.

# **Budget**

Building with ICFs kept the project on budget to the owner's complete satisfaction. The strength of the ICF walls is complemented by the beauty of the high end finishes, all falling in line with the owner's vision of luxury theaters and premium entertainment.

## **Timing**

By building with ICFs the crew was able to shave off 30 days of build time. ICF building properties were aided by an aggressive construction schedule devised by the subcontractor XL Concrete Masonry. Their team, per day, placed concrete 10 ft high in walls on half of the building, then moved over to do similar concrete placement in walls on the other half of the building the next day. The teams went back and forth producing outstanding man hour reductions on wall square foot produced.

