

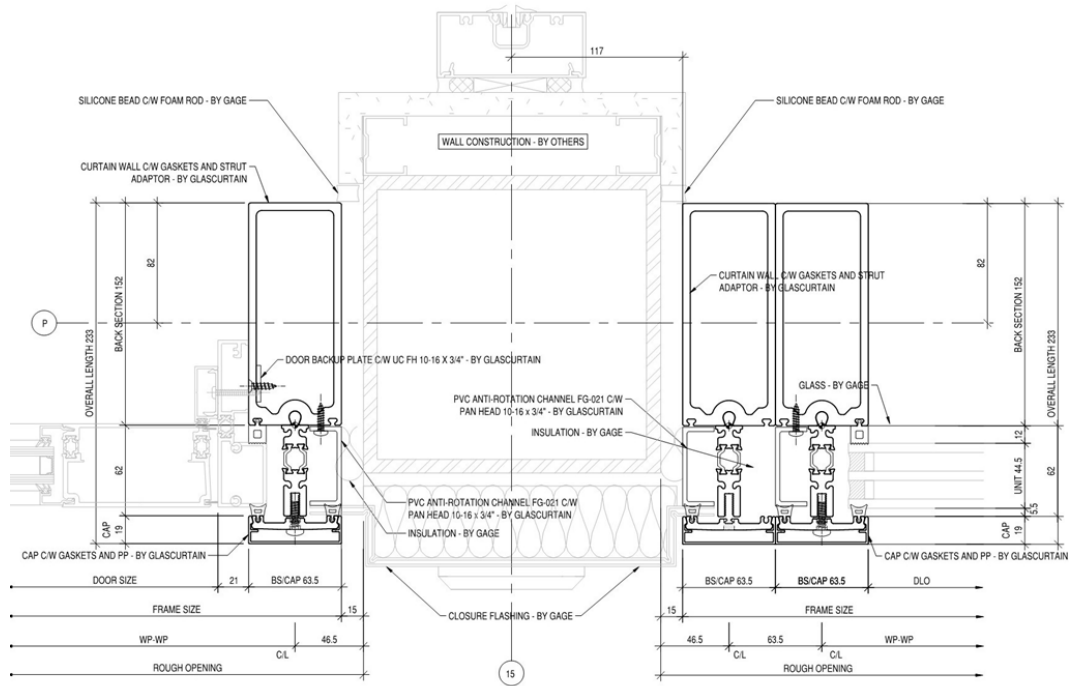
Facade – LOD 400 Modeling

(Architectural Modeling & Walkthrough, BIM & VDC Coordination Services)

CASE STUDY



TECHTURE



Client : Architect

Team Size : 3 Nos. (BIM Architect & BIM Coordinator)

Disciplines : Architecture

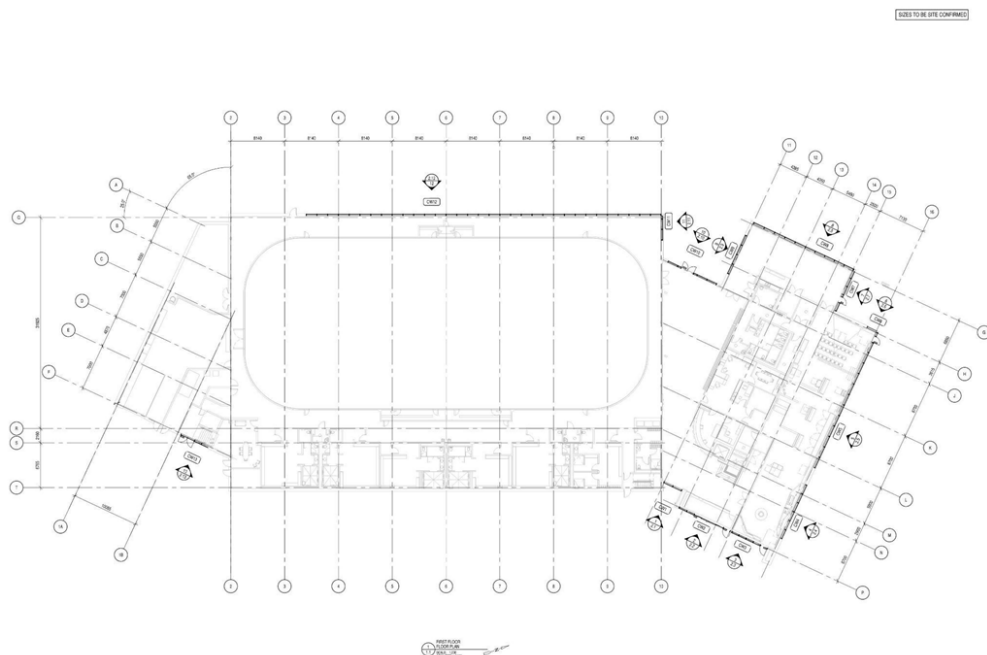
Duration : 1 Month

Scale : 60,000 Sq. Ft.

Software : Autodesk Revit & Naviswork

Type : Commercial

Location : California, USA



Project Overview

This 60,000 sq ft façade project required high-precision LOD 400 BIM modeling to support fabrication and installation. Using Autodesk Revit for detailed façade modeling and Navisworks for multidisciplinary clash detection, our team delivered coordinated and construction-ready layouts. The scope involved generating complete shop drawings and resolving interface challenges with the primary structure. The model ensured dimensional accuracy, alignment of façade components, and early issue resolution.

Scope & Deliverables

- ❏ LOD 400 façade BIM modeling covering panels, brackets, anchors, sub-framing, and secondary support systems
- ❏ Development of fabrication-ready and installation sequencing shop drawings derived from the coordinated model
- ❏ Multidisciplinary clash detection and resolution with the structural and adjacent envelope systems using Navisworks
- ❏ Model-driven constructability analysis, coordination support, and issue tracking throughout design and installation stages

Challenges

- ❏ Complex and non-linear façade geometry demanding millimeter-level modeling precision
- ❏ Tight interface tolerances between façade support systems and primary structural elements requiring iterative coordination
- ❏ Management and tracking of fabrication-grade detailing across a large, multi-zone façade envelope
- ❏ Detecting and resolving model clashes while maintaining the architectural design intent and visual continuity

Techture Approach

- Developed parametric LOD 400 façade models fully aligned with fabrication standards and material specifications
- Executed systematic clash detection and resolution with the structural model to eliminate conflicts before production
- Generated coordinated fabrication and installation shop drawings directly extracted from the federated BIM model
- Ensured continuous multidisciplinary coordination with design, fabrication, and site teams for timely alignment and issue closure

Benefits

- Significant reduction in on-site rework through proactive clash identification and resolution
- Higher fabrication precision and smoother installation driven by coordinated LOD 400 detailing
- Improved interface alignment between façade systems and primary structural elements
- Accelerated approvals and decision-making with clear, coordinated BIM-derived shop drawings

