

# QSR Restaurant

(Structural Modeling, BIM & VDC Coordination Services)

CASE STUDY



TECHTURE



**Client** : Structural consultant

**Team Size** : 5 No.s ( BIM Engineer & BIM Coordinator)

**Disciplines** : Structural

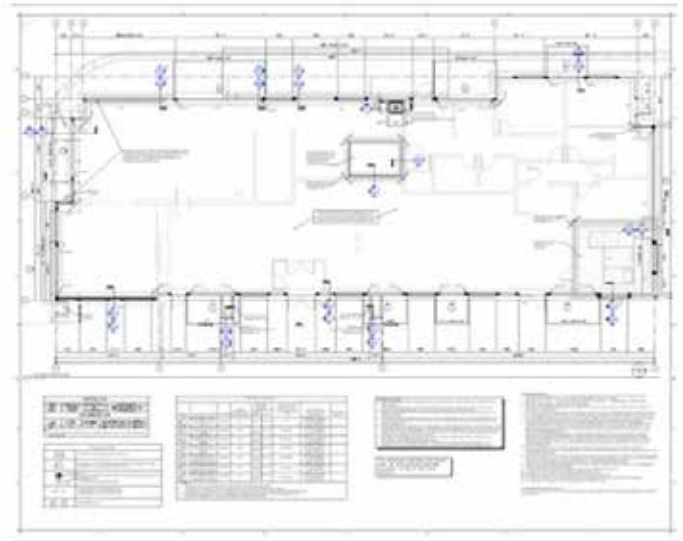
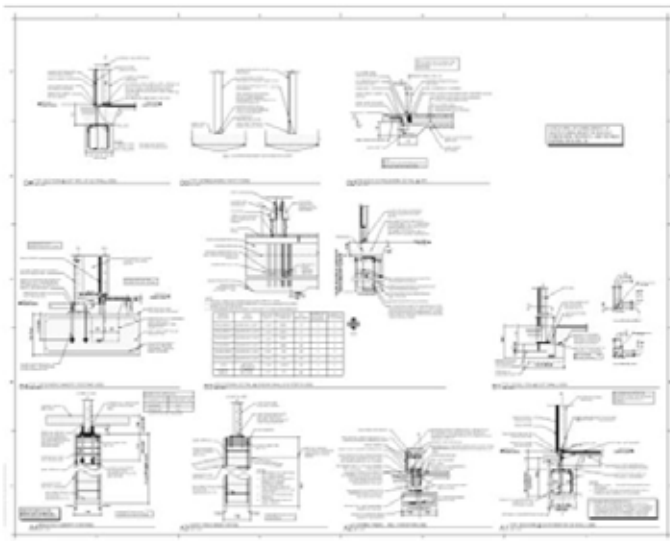
**Duration** : 3 Months

**Scale** : 6000 SQ. ft.

**Software** : Revit

**Type** : Restaurant Building

**Location** : Utah, USA



## Project Overview

Techture partnered with Structural Engineering Consultant to provide BIM support for the structural design of a retail store project. The scope of work included importing PDF/CAD files, drafting in AutoCAD, creating a Revit template, developing a 3D structural BIM model to LOD 300, and coordinating with MEPF disciplines. Additionally, a comprehensive set of structural sheets was prepared, aligning with project requirements and drafting standards.

Through continuous collaboration and iteration, the team delivered a coordinated structural model and complete drawing set, ensuring accuracy, compliance, and seamless integration with architectural and MEP models.

## Scope & Deliverables

- ❏ Imported PDF/CAD drawings and developed a project-specific Revit template.
- ❏ Created a 3D structural BIM model to LOD 300, including foundation plans, slab layouts, roof framing, steel and wood framing details, and structural specifications.
- ❏ Conducted multi-disciplinary coordination with architectural and MEP teams to identify and resolve conflicts.
- ❏ Produced a complete structural sheet set, covering plans, elevations, sections, details, specifications, and inspection sheets.
- ❏ Incorporated all architectural updates and consultant feedback into the model to maintain alignment and consistency.

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## Challenges

- ❏ Maintaining workflow efficiency while waiting for critical design inputs, which occasionally delayed modeling progress.
- ❏ Ensuring smooth multi-disciplinary coordination between structural, architectural, and MEP models.
- ❏ Incorporating frequent architectural revisions and design markups into the structural model and drawings while maintaining accuracy.
- ❏ Managing quality checks to meet drafting standards and eliminate errors prior to submission.

# Techture Approach

- Established clear communication protocols with consultants, including regular design review sessions to address evolving requirements.
- Created a comprehensive 3D model aligned with architectural revisions and refined iteratively based on consultant markups.
- Conducted QA/QC reviews using checklists to ensure compliance, accuracy, and completeness of the structural sheets.
- Facilitated multi-trade coordination, downloading the latest architectural models regularly to keep the structural model synchronized.

## Benefits

- Delivered a fully coordinated 3D structural model and comprehensive drawing set with zero escalations.
- Reduced the risk of errors and rework through proactive clash detection and quality checks.
- Ensured faster approvals by incorporating consultant feedback promptly and keeping deliverables aligned with evolving requirements.
- Provided a reliable, construction-ready package that supported efficient execution on site.

