MOLD·TEK

350 Summer Street

Structural Steel Detailing Case Study

COMMERCIAL BUILDING | BOSTON, MA

A high-rise commercial steel detailing engagement involving existing-structure coordination, city sequencing zones, and a tight delivery schedule.

3,700	23.6	91	17
Tonnage	Weeks	Sequences	Floors + Roof

Moldtek Technologies Limited

PROJECT OVERVIEW

Built for precision in a complex urban steel environment

350 Summer Street is a 17-floor commercial building with a roof level and 2 existing levels. The development is positioned beside an existing building, requiring coordination between new steel, existing columns, existing beams, and varying slab elevations.

17 + Roof	2	5	11
Floors	Existing Levels	Blocks per Level	Core Elevators

PROJECT SNAPSHOT

- Commercial building in Boston, MA
- Typical framing at Levels 4 & 5
- Typical framing at Levels 7–15
- One core wall and two main stair blocks
- All main steel and secondary steel in scope

Scope of Work & Delivery Method

Main steel, secondary steel, plate girders and davit supports

3,700	5	2	davit support posts at Level 6 & roof	23.6
tons of steel	plate girders at Level 3	plate girders at Level 6		weeks schedule

MAIN STEEL DETAILING

Complete detailing of columns, beams, bracings and associated connections in compliance with project specifications and AISC standards.

SECONDARY STEEL DETAILING

Detailing of joists, girders, purlins, stair stringers, handrails and miscellaneous steel to support the primary structure and building systems.

PLATE GIRDER FOCUS

Detailing of 5 plate girders at Level 3 and 2 plate girders at Level 6 including web openings, stiffeners, splices and bearing connections.

DAVIT SUPPORT POSTS

Detailing of davit support posts at Level 6 and roof, including base plates, stiffeners and connection details for marine equipment support.

COORDINATION WITH EXISTING STRUCTURE

Close coordination with existing structure, city sequencing zones and services to ensure constructability and seamless installation.

DELIVERY METHOD

01 CAPTURE THE PROJECT FRAME

Review contract documents, BIM models and site conditions to capture the structural intent and project requirements.

02 SEQUENCE THE MODEL

Apply city sequencing zones and erection logic to plan the steel workflow and installation progression.

03 STANDARDIZE TYPICAL ZONES

Create and reuse typical details, connections and components to ensure consistency and drive efficiency.

04 MANAGE EXISTING INTERFACES

Coordinate with existing structure, MEP and specialty trades to resolve interferences and optimize outcomes.

05 RELEASE COORDINATED OUTPUT

Generate IFC deliverables, GA drawings, erection drawings and reports quality-checked for construction.

SCHEDULE LENS – 23.6 WEEK PROGRAMME

KICKOFF	INFORMATION GATHERING	MODELING & DETAILING	COORDINATION & QA/QC	CLIENT REVIEW & REVISIONS	RELEASE-READY OUTPUT
Week 0	Week 1–2	Week 3–13	Week 14–20	Week 21–22	Week 23.6

23.6 WEEKS

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Model Clarity & Value Delivered

Model clarity supports fabrication and field coordination

Value delivered

- Clear representation of the new structure framing and core zones
- Improved visibility into sequence-by-sequence detailing progress
- Better understanding of interface conditions between new and existing steel
- Supports shop drawings, fabrication planning, and erection readiness

Project takeaway

350 Summer Street reflects the type of commercial steel detailing assignment where Moldtek combines technical coordination, sequence control, and schedule discipline to support buildable outcomes for complex urban projects.

Building & Sequencing Logic

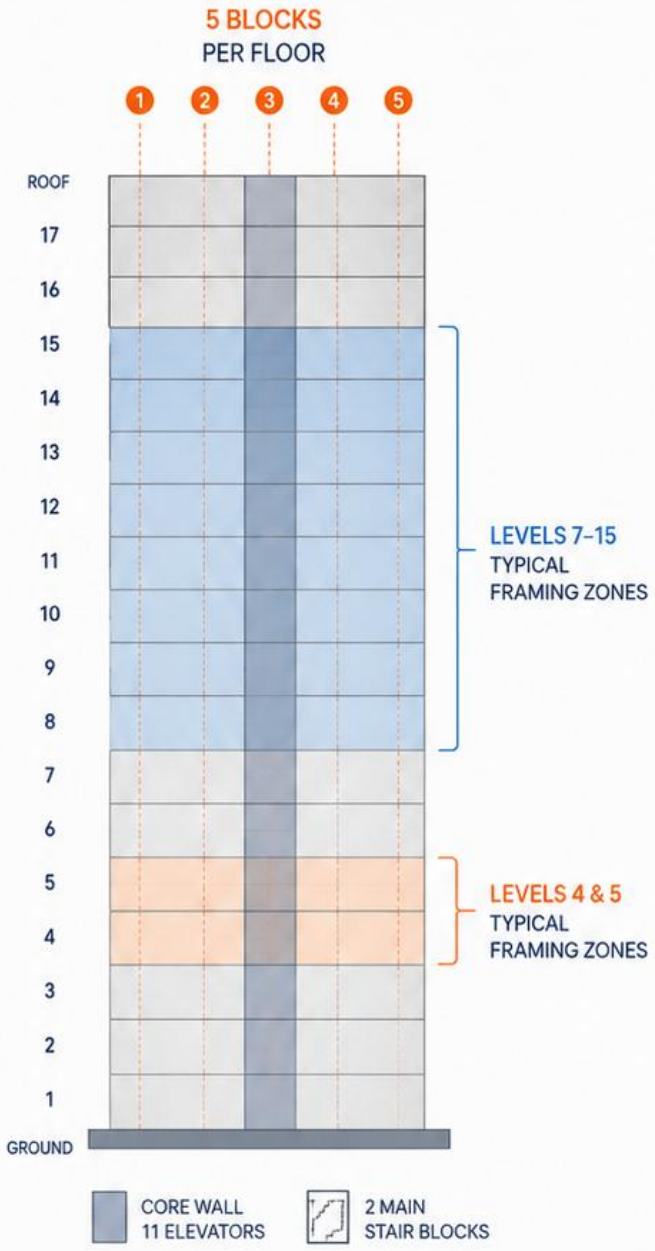
91 sequences organized across floors and blocks

Each floor level is divided into 5 blocks (sequences), creating a total of 91 sequences for the entire building. This sequencing approach supports controlled detailing, structured review, fabrication release, and seamless field coordination.

Levels 4 & 5 are **typical framing zones.**

Levels 7–15 are also **typical framing zones.**

One core wall with **11 elevators** and **2 main stair blocks.**



Why the sequencing strategy matters

- Breaks a large building into manageable detailing packages.
- Allows typical floor framing to be standardized.
- Improves coordination between new steel and adjacent existing structure.
- Supports fabrication and erection planning.

COORDINATION CHALLENGES

Where new steel meets existing structure

Integrating new steel with existing conditions introduced multiple coordination challenges across levels, connections, and interfaces.

01

Adjacent construction

The building is being constructed beside an existing building.

02

Column splice verification

New columns are spliced onto existing columns, requiring field verification of splice locations.

03

Level-2 framing complexity

Level-2 has existing structure and new beams connecting to existing beams.

04

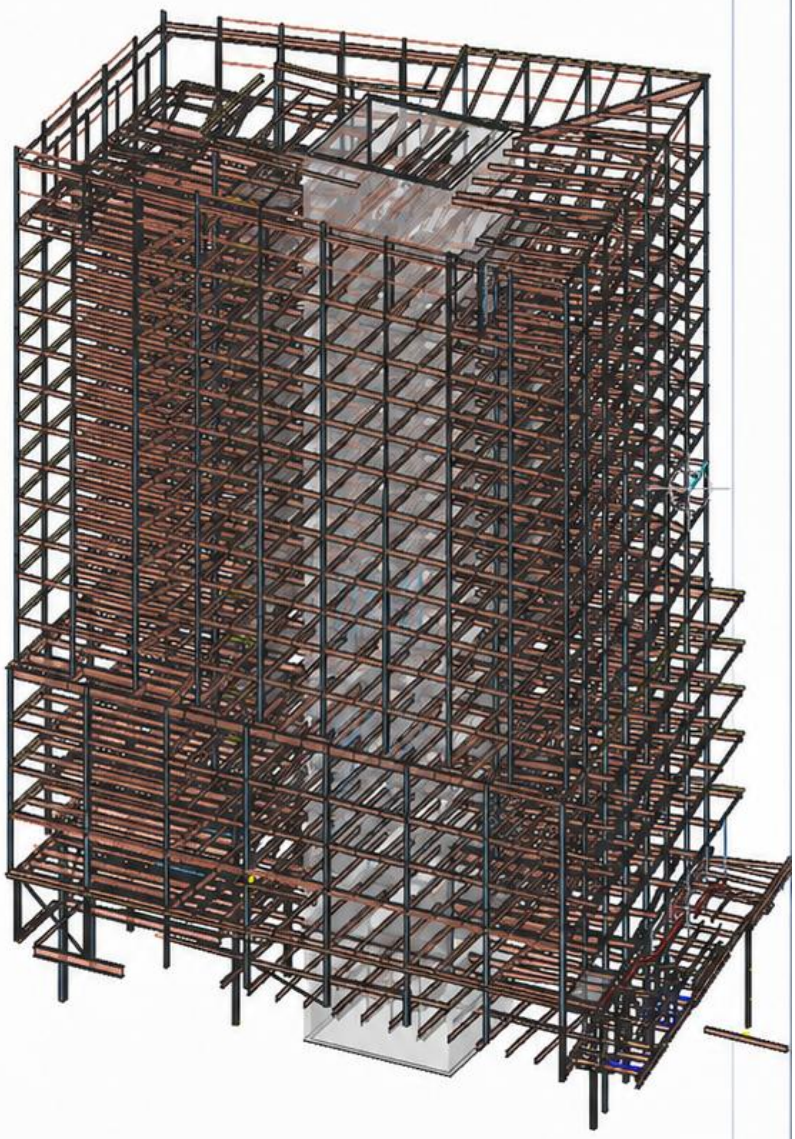
Slab elevation differences

Level-2 coordination is more complex due to varying slab elevations.

05

Existing beam connections

Connections between new framing and existing beams required careful coordination.



Detailing implication

The critical path involved model production, live coordination clarifications, field verification points, and connection interfaces that had to be translated into buildable steel information.