Project Profile LS_02

PROJECT NAME

CONFIDENTIAL LIFE SCIENCES PHARMACEUTICAL MANUFACTURING
Rahway, New Jersey

DATE OF ERECTION
Q1 2024

PROJECT CATEGORY

LIFE SCIENCE / MANUFACTURING
165,000 SQFT. 3-stories + penthouse (4 story structure in total)

CONXTECH SOLUTION

ConXtech employed non-seismic braced frames as the Lateral Force Resisting System (LFRS) with ConXtech XL400 collars as Flexible Moment Connections (FMCs).

The ConXtech FMC system assists in providing initial stability during frame erection, ensures proper frame alignment, increases safety, and faster construction sequencing. In the final condition, the FMC members form part of the gravity system and do not participate in the LFRS.

CONX FMC 400

CONXTECH®
Simply Faster

Life Sciences R&D | Pilot Plant

PROJECT NARRATIVE

Integrated Project Services (IPS) invited ConXtech to be a part of this life sciences manufacturing campus. During the early stages of conceptual design, IPS suggested to the owner and building end-user that they attend a ConXtech presentation to understand the value that our steel solution brings to the construction process. ConXtech's proposed solution aligns with the owner's goals of reducing onsite labor, improving field safety, and accelerating the overall project schedule. This 165,000 sq. ft. pharmaceutical manufacturing facility expands an existing life sciences campus that ConXtech rapidly deployed to meet the demands of the medical market. ConXtech provided a cost-competitive solution, met all building performance criteria, reduced significant man-hours off the jobsite and into a controlled shop environment, and shortened the delivery timeline for the combined structural steel and metal decking package from approximately 80-85 days to 26 days.

CONXTECH PROJECT APPROACH

Employing non-seismic braced frames as the Lateral Force Resisting System (LFRS), ConXtech integrated ConXtech XL400 collars as Flexible Moment Connections (FMCs). This ConXtech FMC system serves a dual purpose: first, providing essential stability and alignment during frame erection; and second, transitioning to become part of the gravity load system in the final structure, thus not participating in the LFRS. ConXtech's FMC solution reflects the latest evolution in ConXtech's design approach and can be paired with any LFRS. ConXtech proposed this approach for subject program as it provided the most efficient frame weight and cost while still allowing for safer steel erection and a field assembly rate that cannot be matched by any other competing structural system.
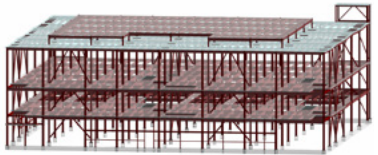
PROJECT DATA

| Square Footage	165,000 ft²
Steel Frame + Metal Decking Install	26 Days
ConXtech Scope	Supply and Installation of Structural Steel, Edge Closure, Elevator Steel, Prefab Stairs, and Metal Decking

STAKEHOLDERS

Owner	Confidential
Architect	Integrated Project Services
Engineer	Mainstay Engineering Group, Inc.
General Contractor	Integrated Project Services

CONX**FMC**400

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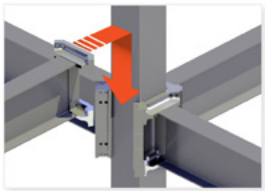
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Building Type	Life Science / Manufacturing
Location	Rahway, NJ
Stories	3 stories plus penthouse
Size	165,000 ft²
Floor to Floor Heights	20 ft.
Live Load	150 - 250 PSF
Floor Vibration Criteria	4,000 mips
ConXtech System	Gravity System
Seismic Design	Category B *Braced Frames Not Specifically Detailed for Seismic as LFRS
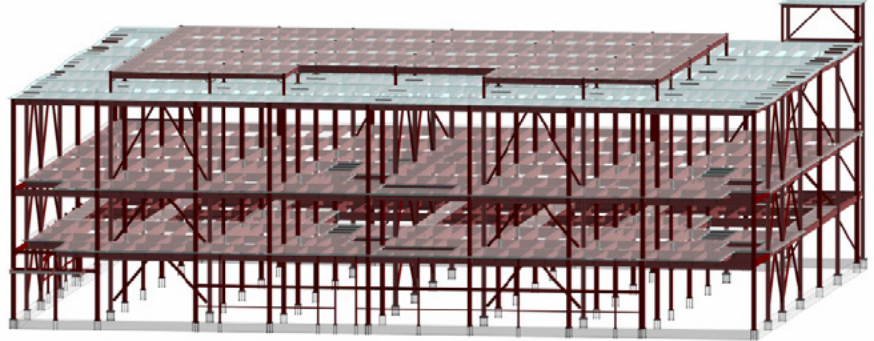
Structural Comparision	Conventional	CONXTECH®
Price per Ton (Fab & Erect)	approx. $6,000 - $6,500 USD per ton	approx. $6,000 - $6,500 USD per ton
Erection Productivity	5 - 7 MH per ton	2 - 3 MH per ton
Erection Duration Including Decking	16 - 17 weeks	6 weeks
Total Field Hours	9,600 - 12,800 man-hours	3,200 - 4,800 man-hours

* Assumes December 2021 material pricing levels

Whether LFRS or Gravity, Conxtech Connections Deliver Unparalleled Speed.

CONXTECH FLEXIBLE MOMENT CONNECTION (FMC)

- Cost competitive
- Works in combination with any steel LFRS (but not part of the LFRS)
- Immediate frame stability
- No concrete fill of any columns
- No RBS beams at ConX collars
- No pretensioned bolts
- Wider beam selections
- Same speed and safety that Conxtech has delivered
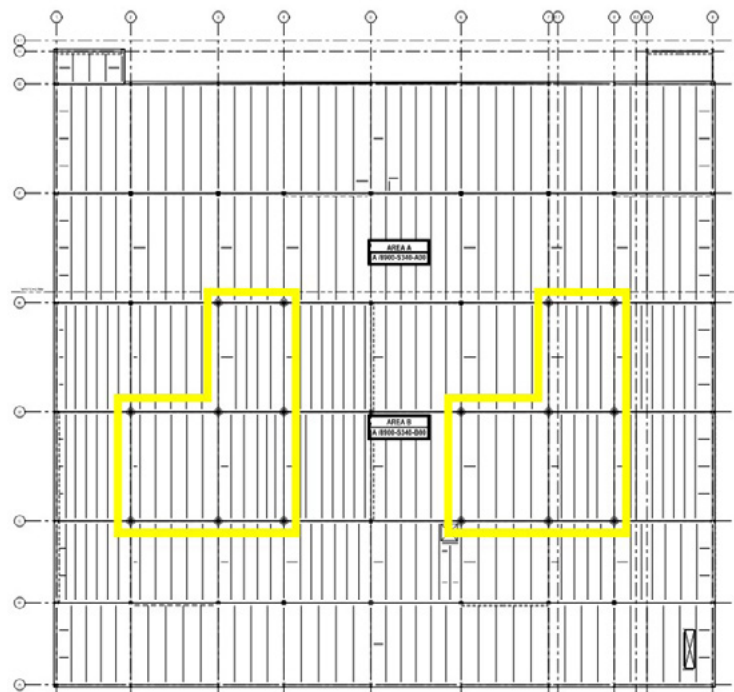
CONTACT US

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