CONXTECH®

Project Profile

PROJECT NAME

CONFIDENTIAL LIFE SCIENCES R&D | PILOT PLANT
Rahway, New Jersey

DATE OF ERECTION
Q3 2022

PRJECT CATEGORY

LIFE SCIENCE / MANUFACTURING
207,000 SQFT. 3-stories plus a 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 and ensuring proper frame alignment. In the final condition, the FMC members form part of the gravity system and do not participate in the LFRS.

CONXTECH®
Simply Faster

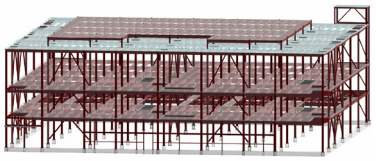
Life Sciences R&D | Pilot Plant

PROJECT NARRATIVE

DPR approached ConXtech in mid-2021 with a unique project opportunity. DPR had been tasked with developing prefabrication strategies that aligned the Owner's goals of reducing onsite labor hours, improving field safety, and accelerating overall schedule. This new 207,000 SQFT research & development and pilot project in Northern New Jersey was to be the future home of critical life-saving drug research, and was to be designed and executed in accordance with the Integrated Project Delivery method. ConXtech responded with a solution that was cost competitive, met all building performance criteria, transferred significant manhours and welding from the job site into a controlled shop environment, and reduced the delivery timeline for the combined structural steel and metal decking package from 22 – 24 weeks down to only 8 weeks.

CONXTECH PROJECT APPROACH

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 and ensuring proper frame alignment. In the final condition, the FMC members form part of the gravity system and do not participate 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.

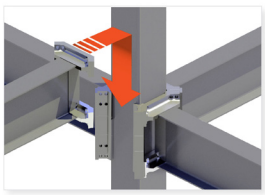


PROJECT DATA

Square Footage	207,000 ft²
Steel Frame + Metal Decking Install	33 Days

STAKEHOLDERS

Owner	Confidential
Architect	Jacobs Life Sciences
Engineer	Jacobs Life Sciences
General Contractor	DPR Construction
ConXtech Scope	Supply and Installation of Structural Steel, Edge Closure, Elevator Steel, Prefab Stairs, and Metal Decking



CONX FMC 400

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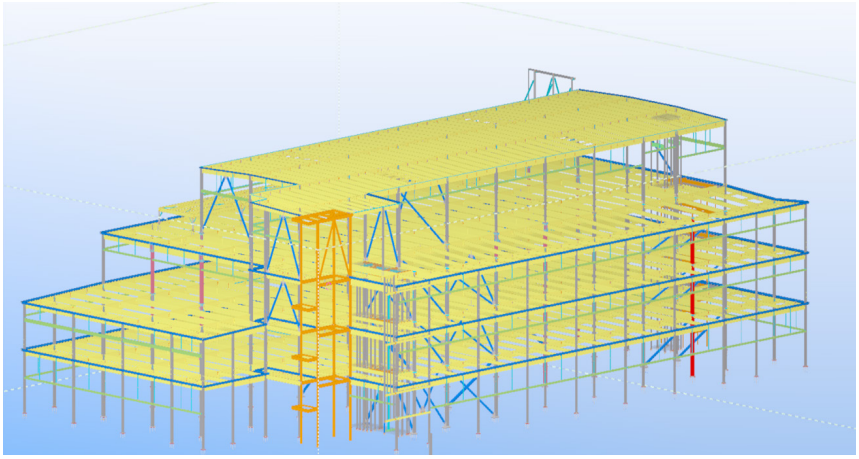
Building Type	Life Science / Manufacturing
Location	U.S. East Coast
Stories	3 stories plus penthouse
Size	207,000 ft²
Floor to Floor Height	16' - 22'
Live Load	125 PSF
Floor Vibration Criteria	4,000 mips
ConXtech System	Gravity System
Seismic Design	Category A or B **Braced Frames Not Specifically Detailed for Seismic as LFRS*



Structural Comparision	Conventional	CONXTECH®
Price per Ton (Fab & Erect)	approx. $5,500 - $6,000 USD per ton	approx. $5,500 - $6,000 USD per ton
Erection Productivity	12 - 16 MH per ton	4 - 6 MH per ton
Erection Duration Including Decking	20 - 22 weeks	8 - 10 weeks
Total Field Hours	12,000 - 16,000 man-hours	4,000 - 6,000 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 MF columns
- No RBS beams
- No pretensioned bolts
- Deeper beam selections
- Same speed and safety that Conxtech has delivered

CONTACT US

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