

The Role of Steel in a Timber-Hybrid Building System

THE FUTURE OF BUILDING.

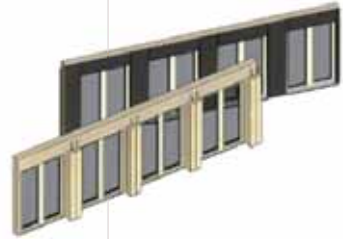


The CREE System

4 Key Elements



1 Core / Bracing System



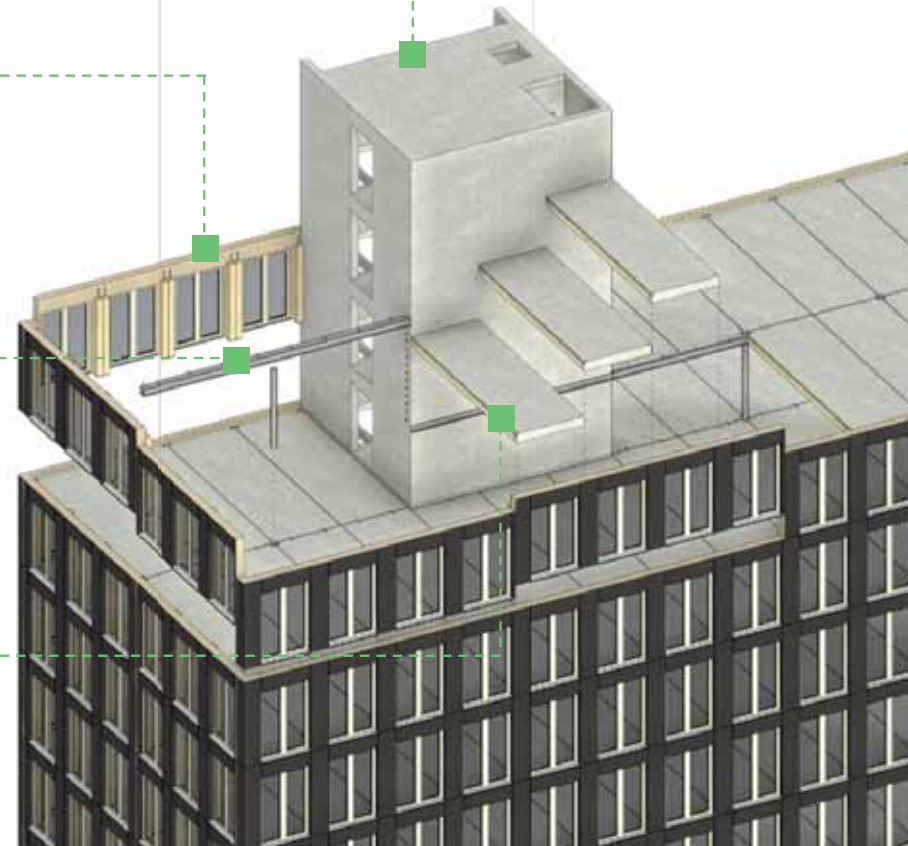
2 Timber Columns & Wall Elements



3 Middle Girders & Columns



4 Timber-Concrete Composite Slabs



Detailing Systemization

- 400-500m² / 4,300-5,400 sqf per day of weather-tight enclosed floor space
- 4-5 workers on site
- Increased safety on site
- Less dependence on site conditions





Use of Steel

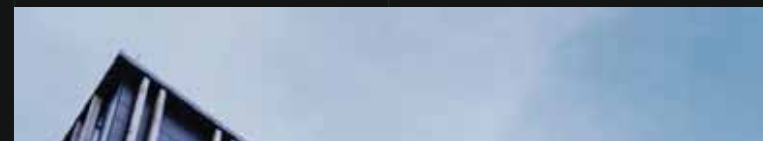
The Obvious
Role

The Hidden
Role

The Special
Role

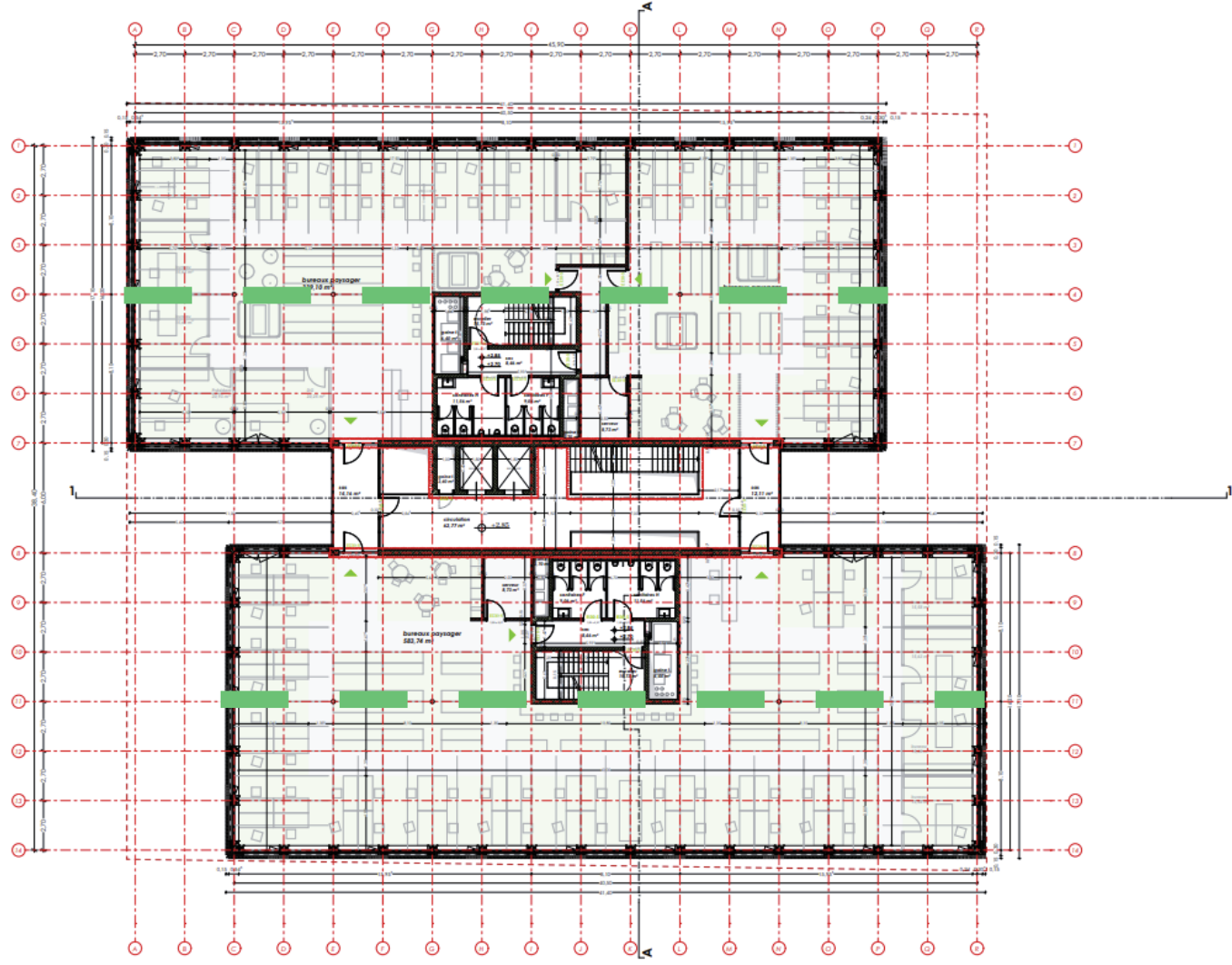
Allégra

Office – LU

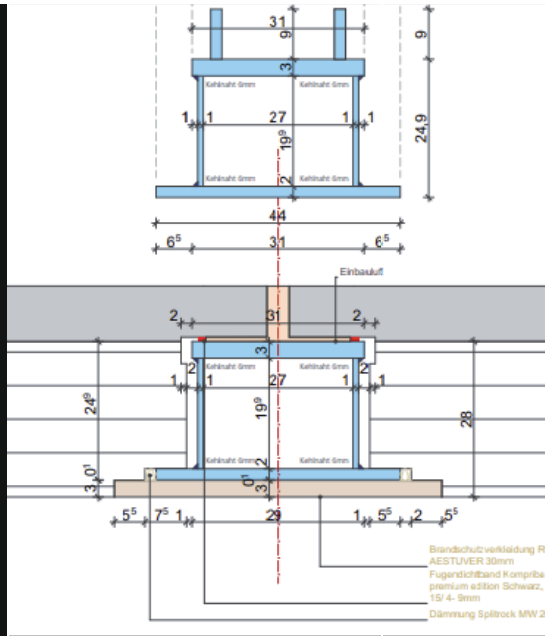


- Type of use: Office
- GFA: 4,600 m² above ground
- 4 storeys
- Completed in January 2022











Use of Steel

The Obvious
Role

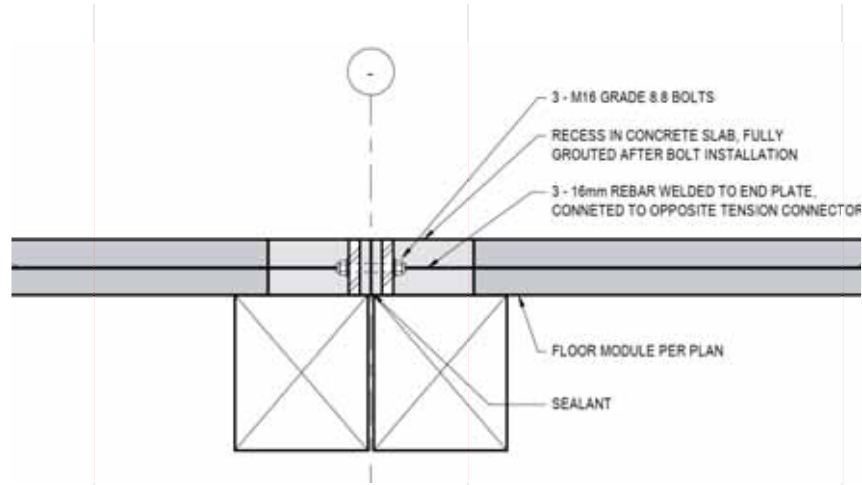
The Hidden
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The Special
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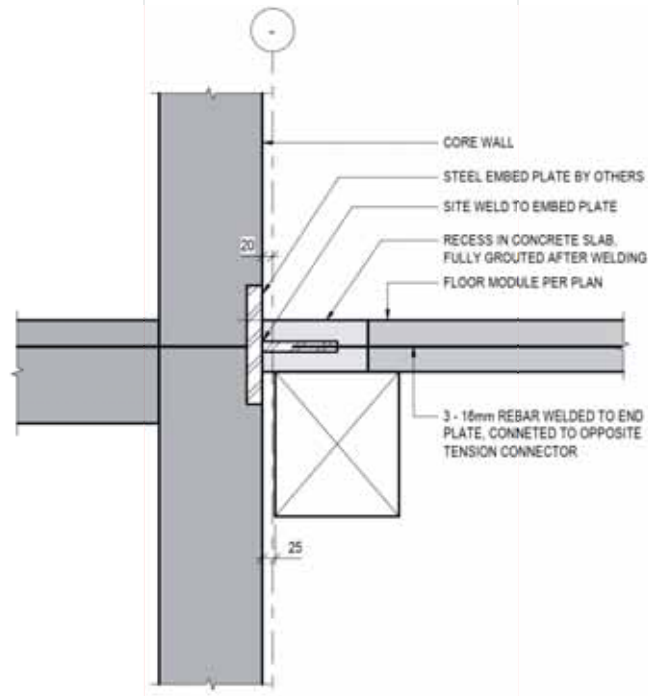
Connection Details

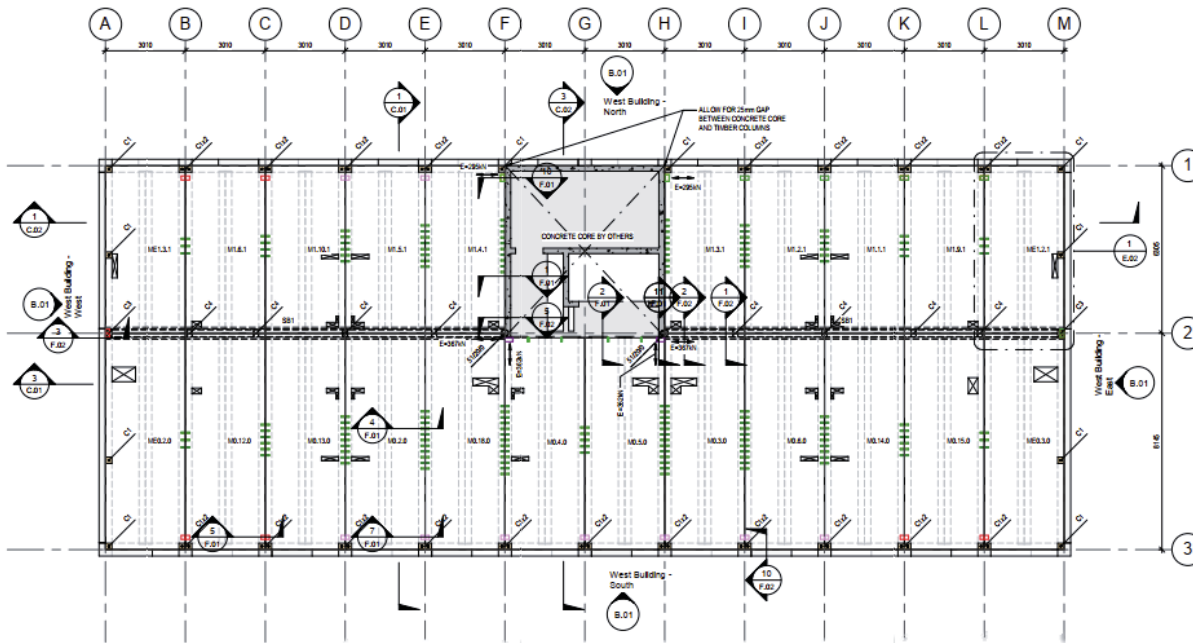


Screwed Steel Plate

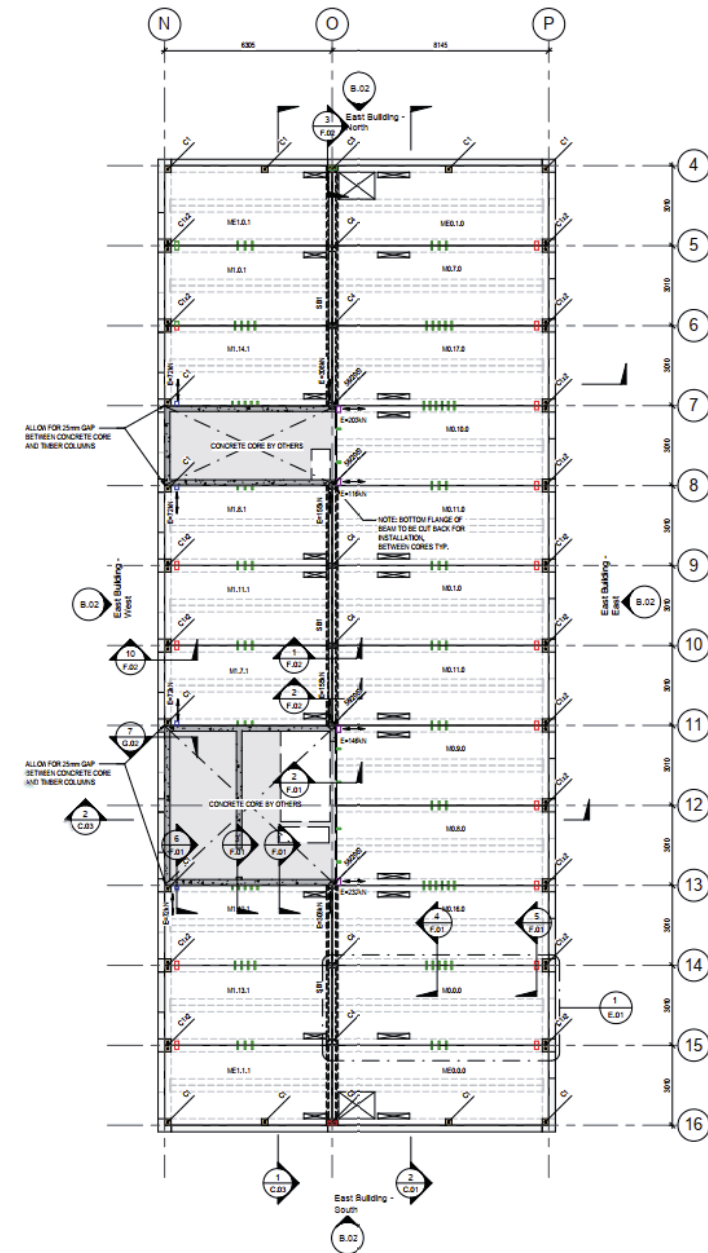


Welded Steel Plate



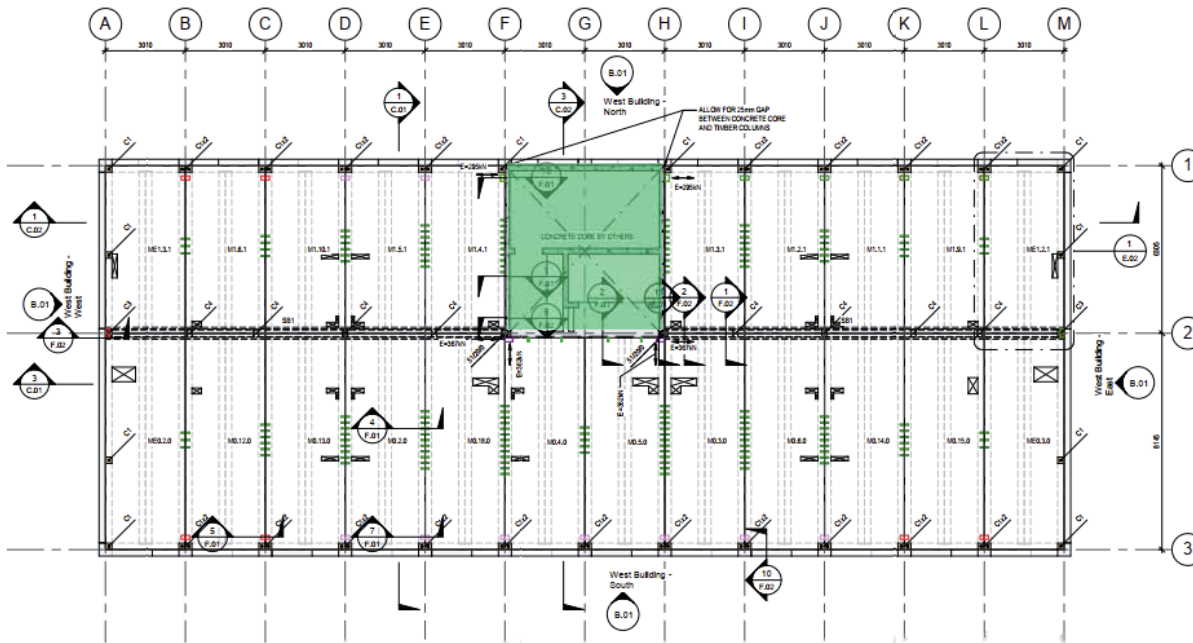


LEVEL 3 - PLAN
1:100

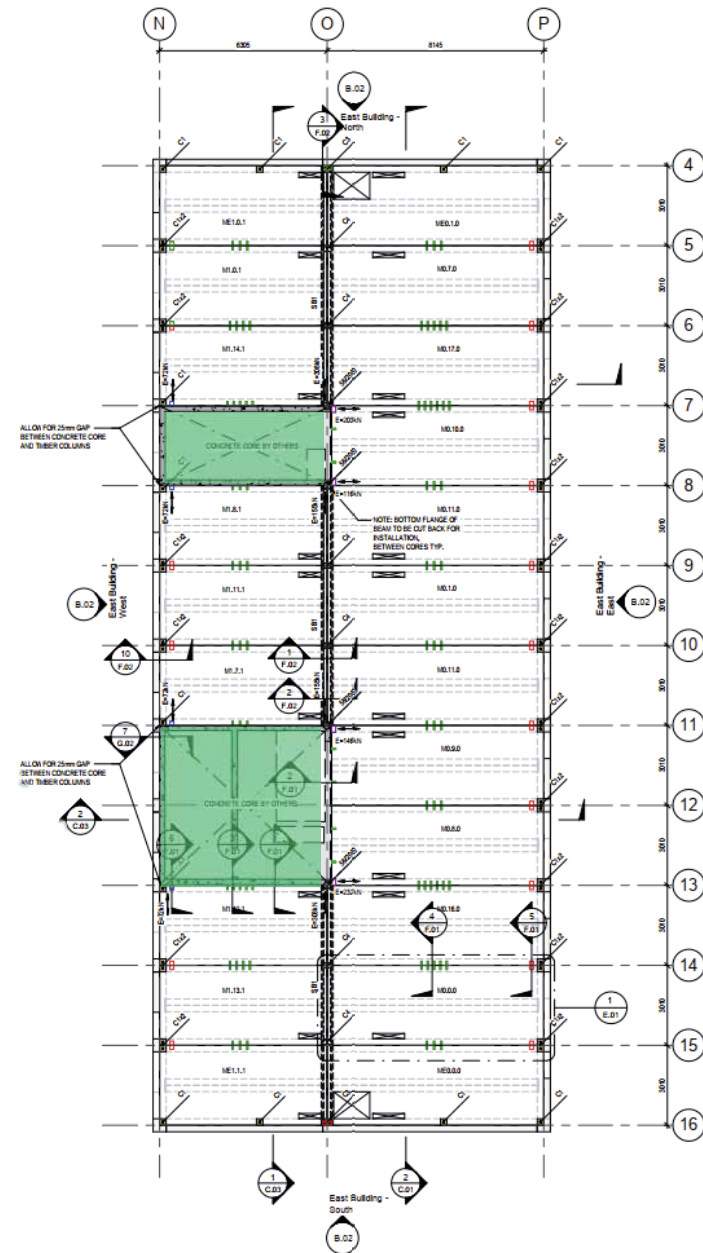


Influence of Bracing On Connectors





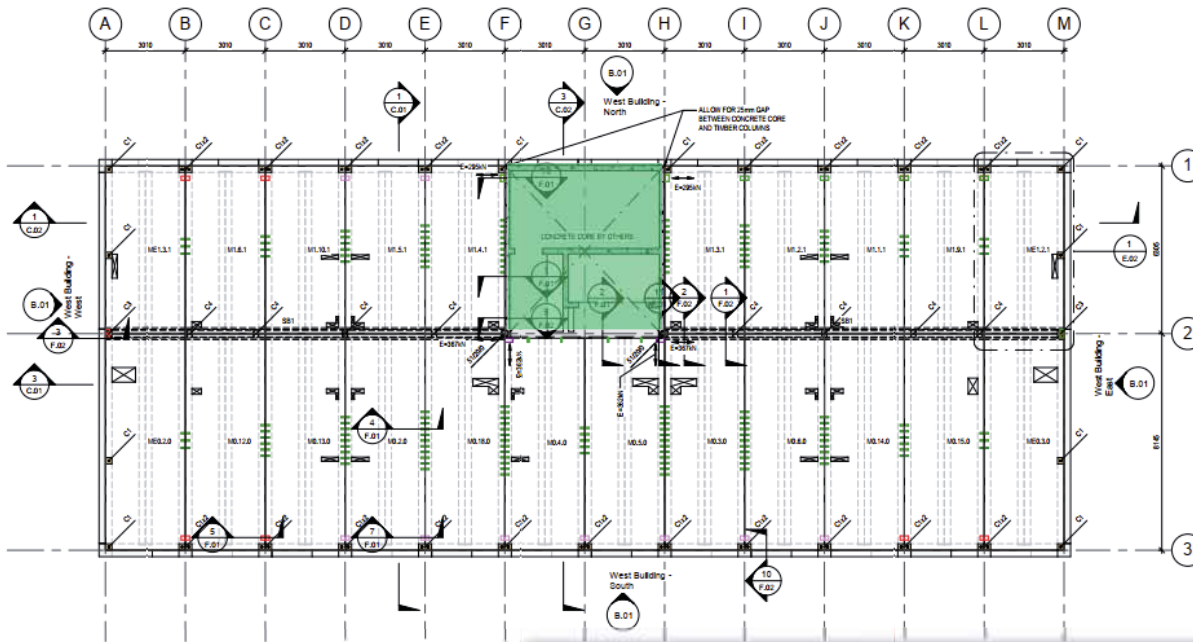
LEVEL 3 - PLAN
1:100



Influence of Bracing On Connectors

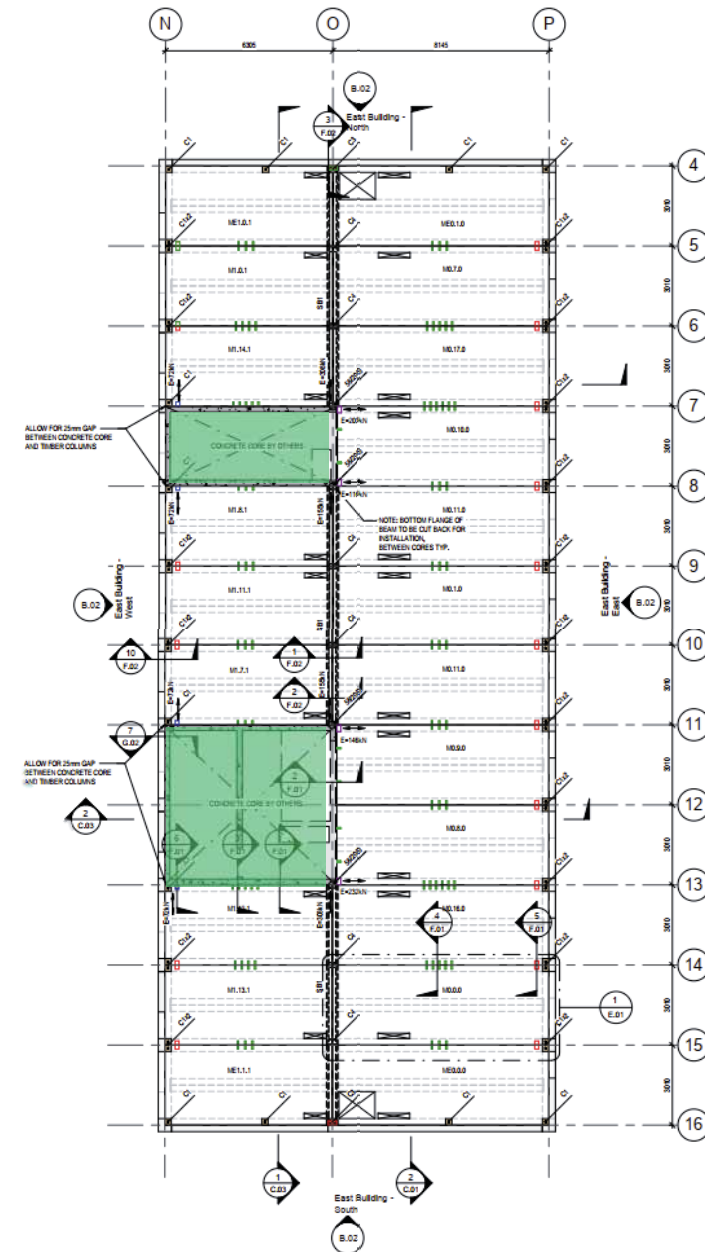


Influence of On Connecto



LEVEL 3 - PLAN
1:100

LEGEND	
	C1 - PFEIFER VS SLIMBOX
	C2 - SLAB TO SLAB CONNECTION 3-M20 BOLTS 8.8 AND 2-16mm REBAR
	C3 - SLAB TO CORE CONNECTION 2-16mm REBAR WELDED TO CAST-IN PLATE
	C4 - SLAB TO SLAB CONNECTION 3-M20 BOLTS 8.8 AND 2-20mm REBAR
	C5 - SLAB TO CORE CONNECTION 2-20mm REBAR WELDED TO CAST-IN PLATE
	C6 - SLAB TO CORE CONNECTION 2-20mm REBAR WELDED TO CAST-IN PLATE



Use of Steel

The Obvious
Role

The Hidden
Role

The Special
Role

EDGE

Suedkreuz

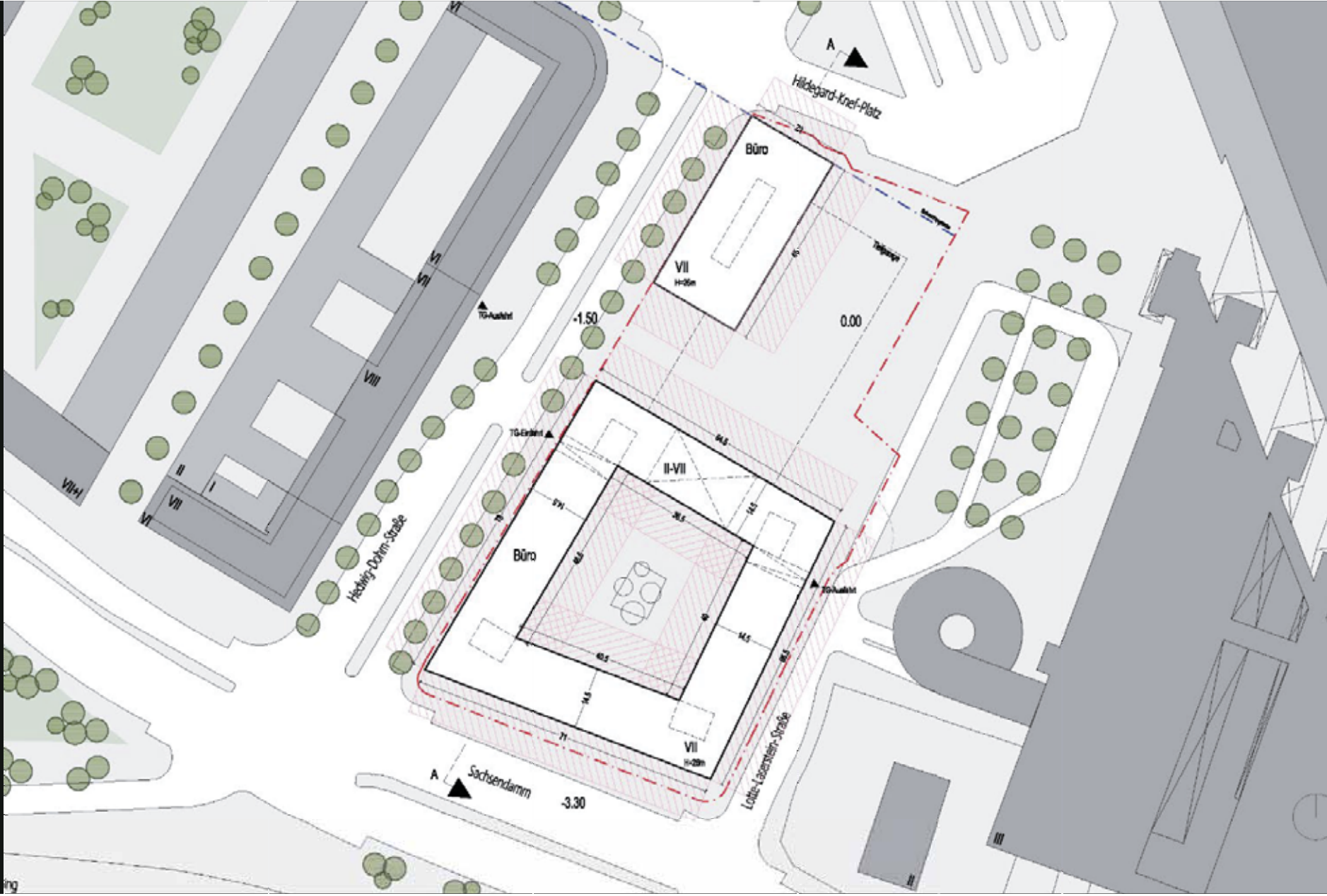
Berlin – DE



- Type of use: Office
- GFA: 32,000 m² / 2 buildings (MK1 + MK2)
- Construction Period: 04/2019 – 06/2022
- CREE assembly time: MK1: 30 days / MK2: 85 days
- Floors above ground: 7/8
- DGNB platinum and diamond certified
- Well Core platinum certified



EDGE SÜEDKREUZ
BERLIN - DE



EDGE SÜDKREUZ
BERLIN - DE



Π EDGE SUEDKREUZ
BERLIN - DE



Π EDGE SUEDKREUZ
BERLIN - DE





MK1

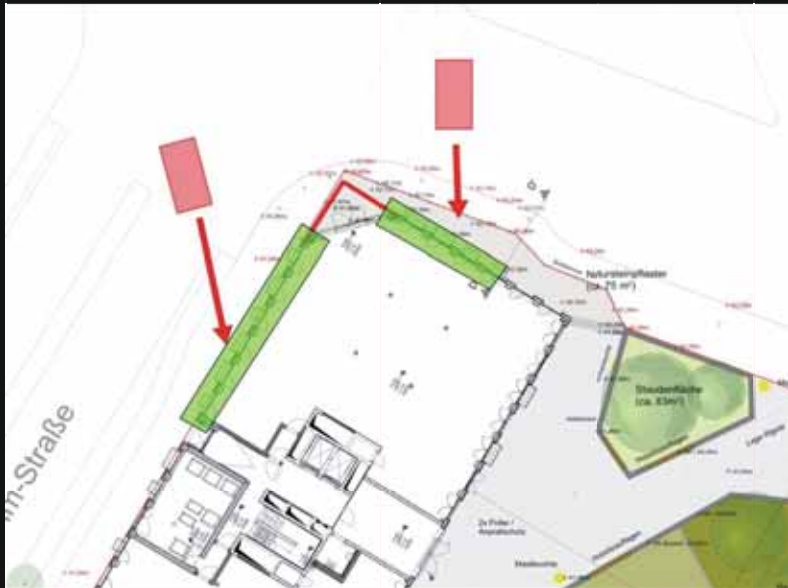
Vierendeel Truss



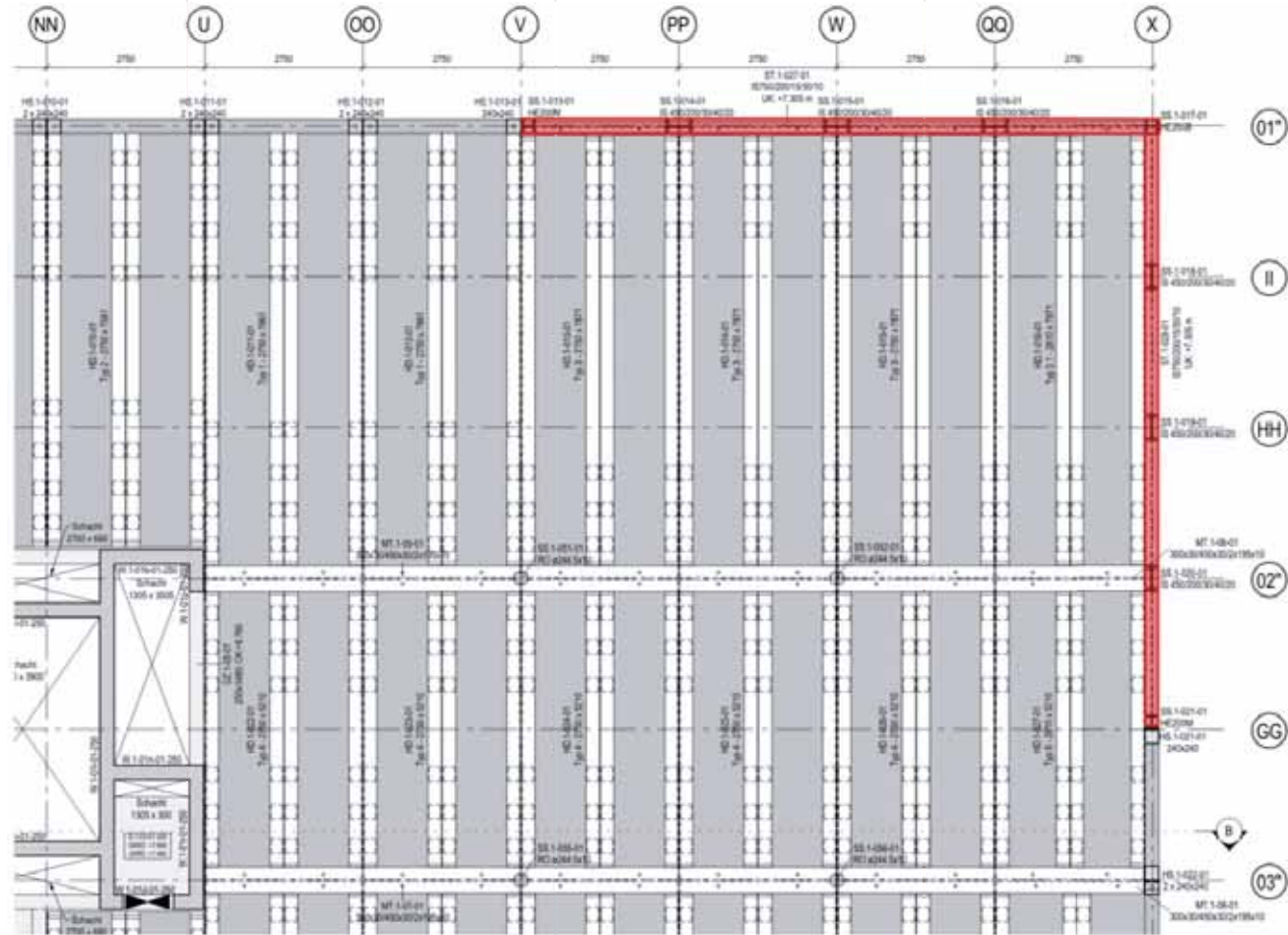
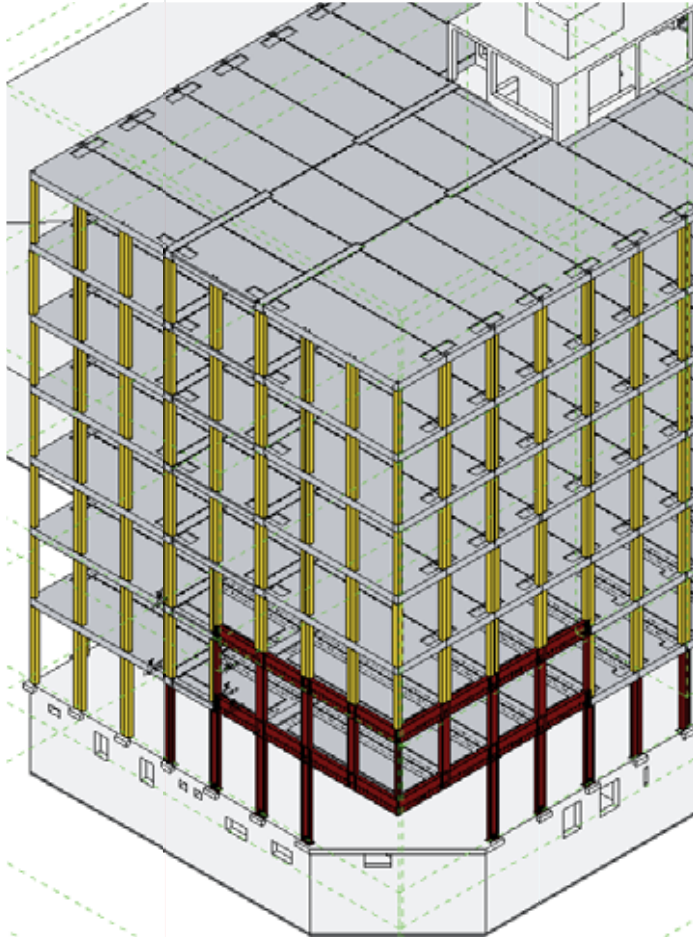
Π EDGE SUEDKREUZ
BERLIN - DE

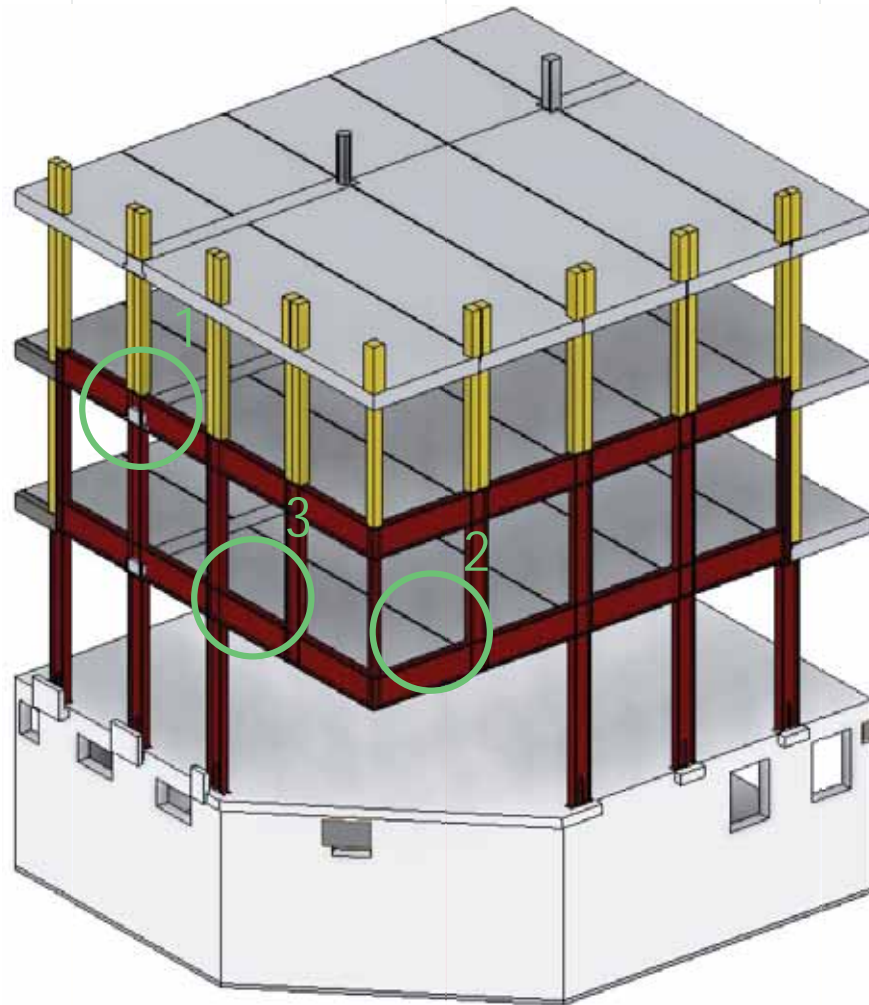


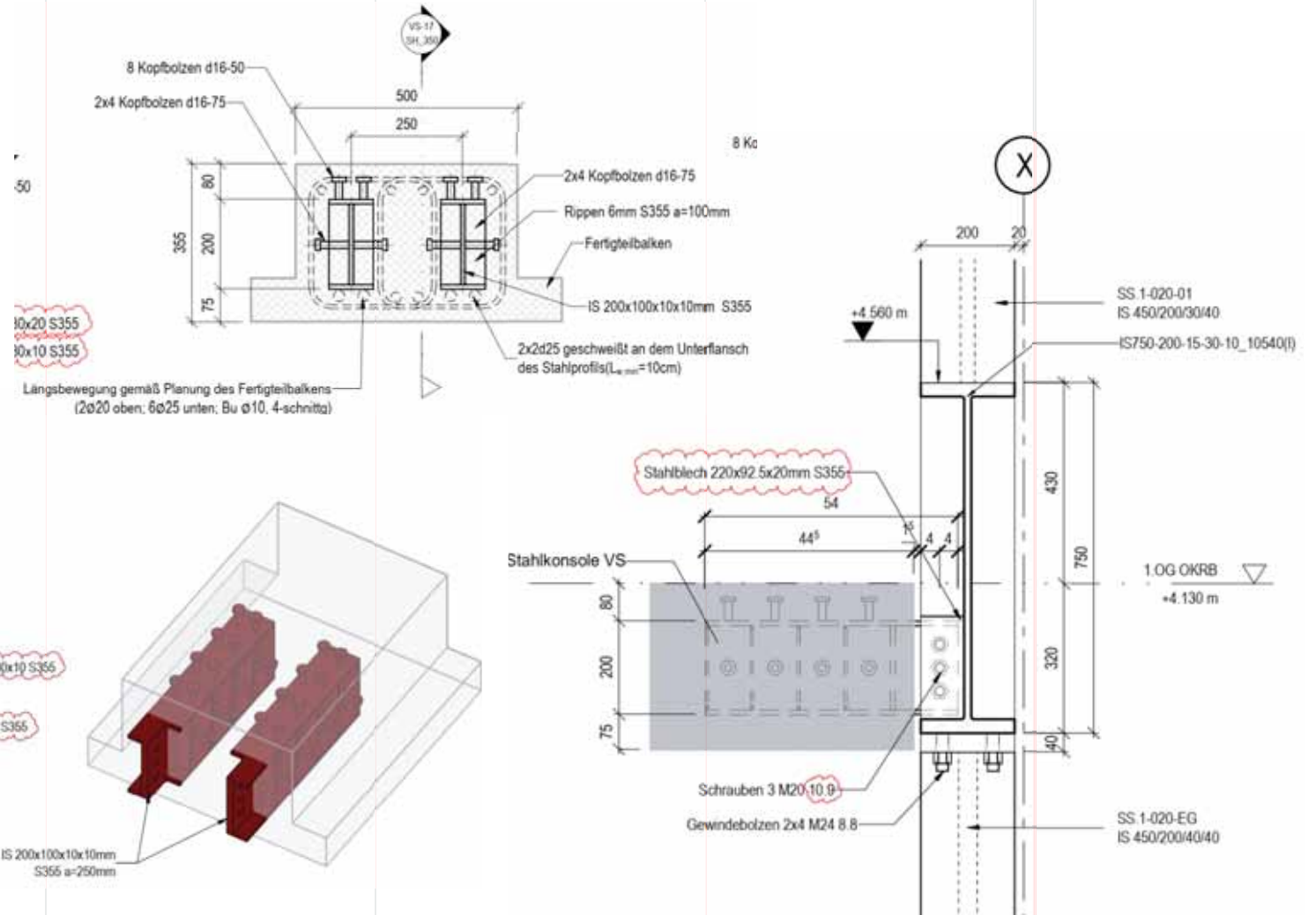
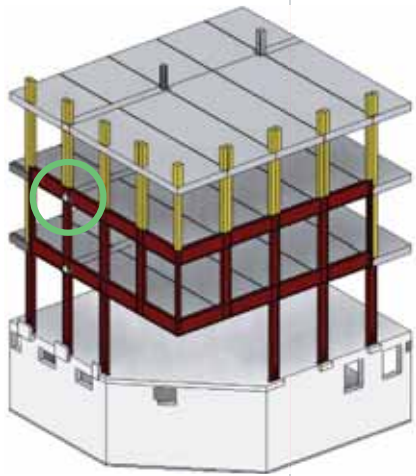
EDGE SÜEDKREUZ
BERLIN - DE



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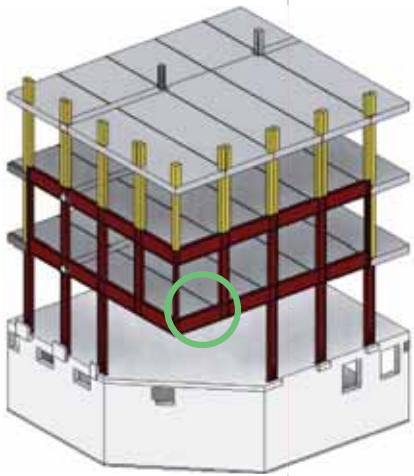




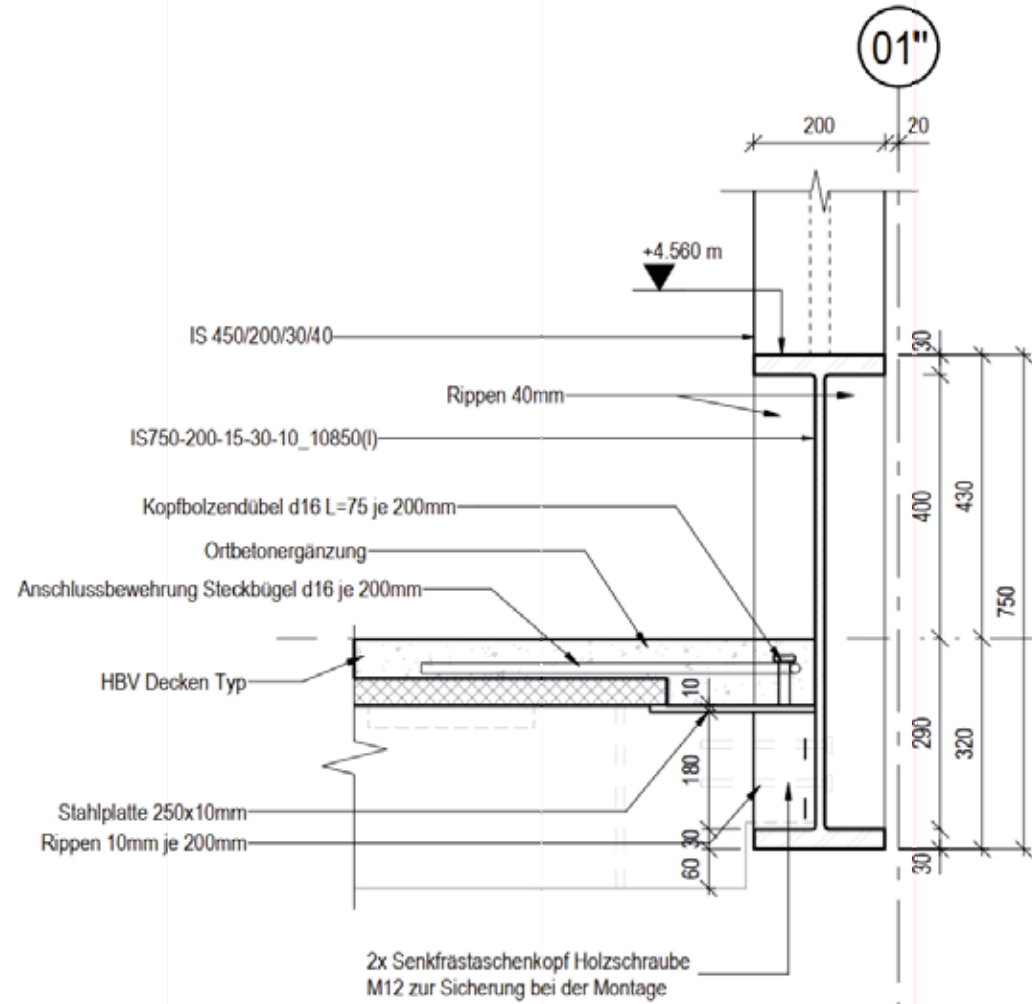


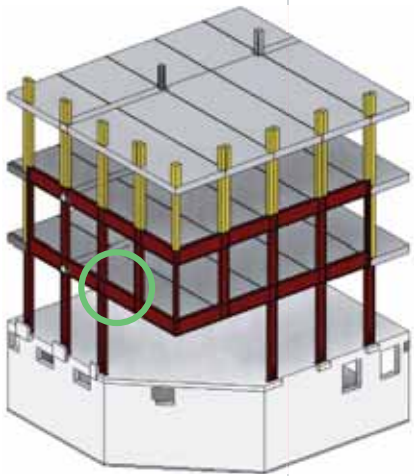
Detail 1



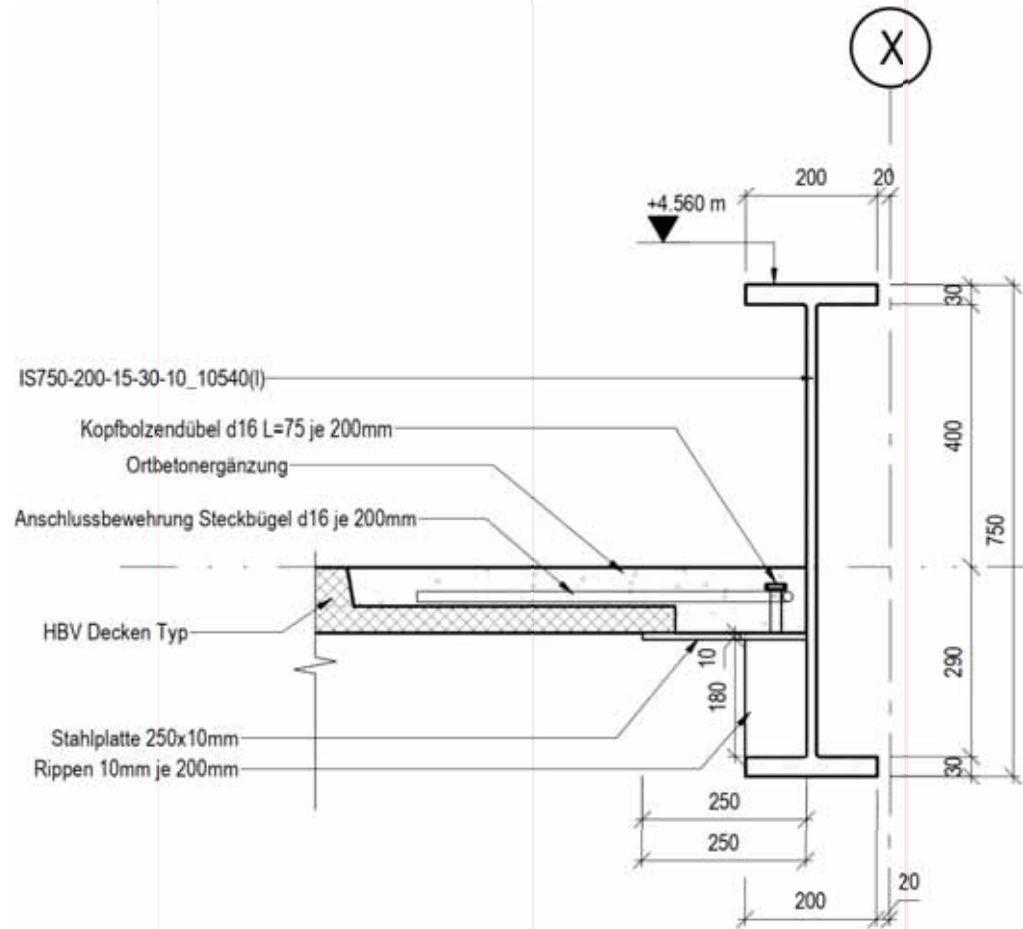


Detail 2





Detail 3



Π EDGE SUEDKREUZ
BERLIN - DE



Π EDGE SUEDKREUZ
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Π EDGE SUEDKREUZ
BERLIN - DE



MK2

Transfer Truss Sky Lounge



Π EDGE SUEDKREUZ
BERLIN - DE



Π EDGE SUEDEKREUZ
BERLIN - DE



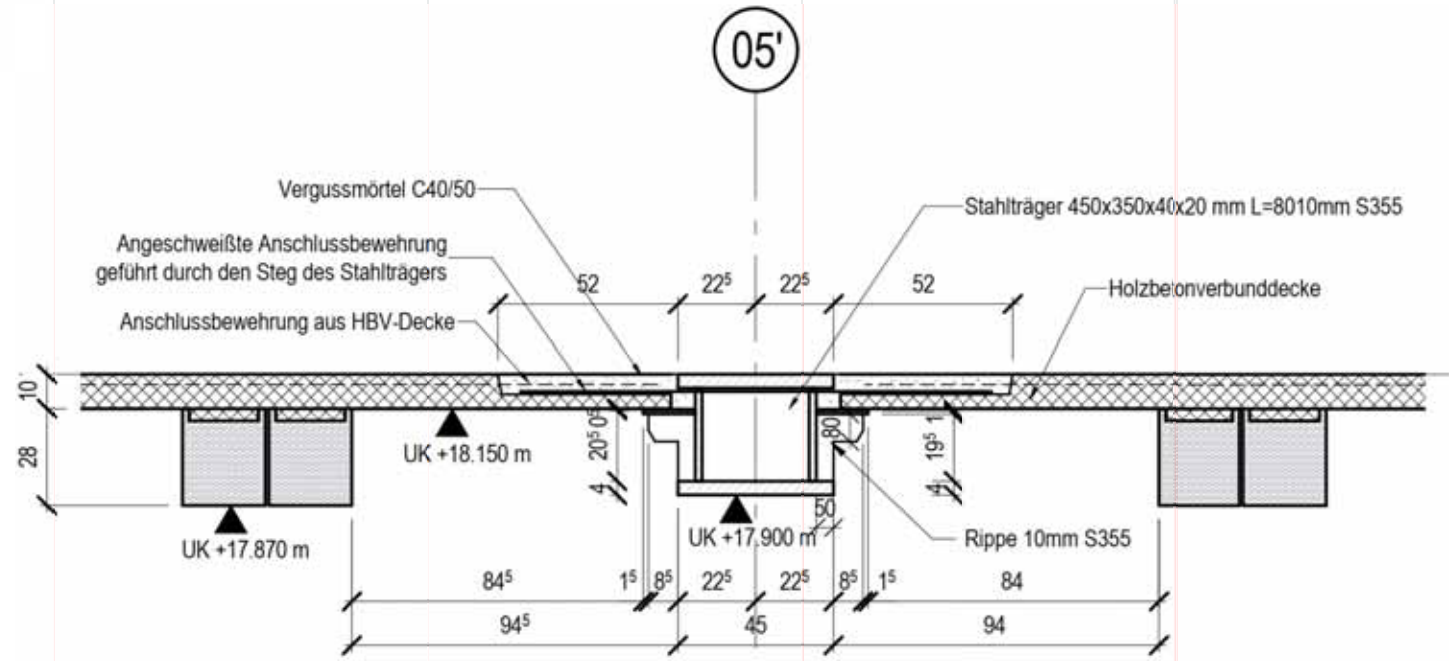
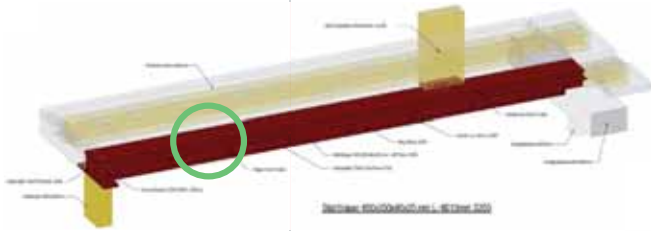
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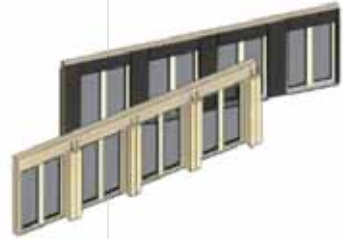
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BERLIN - DE



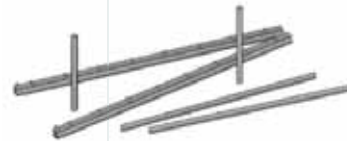
4 Key Elements



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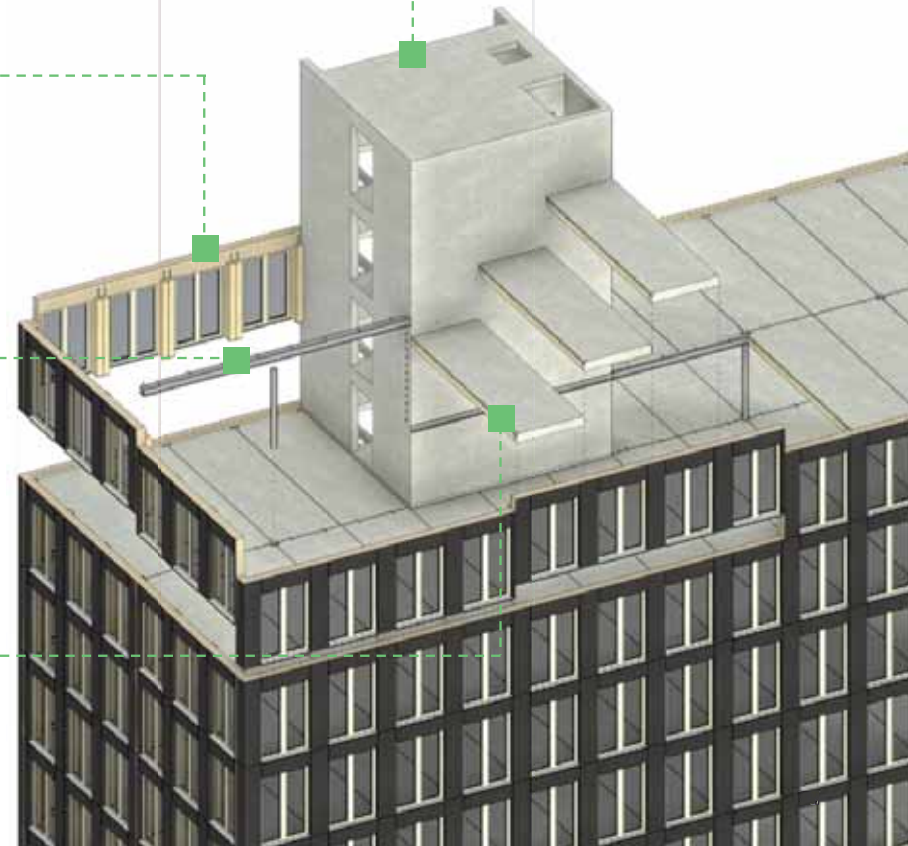
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3 Middle Girders & Columns



4 Timber-Concrete Composite Slabs



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THANK YOU.

**Let's shape the
future together.**

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