Delivering large and complex Passivhaus buildings

McCance Room 301, University of Strathclyde, Glasgow,

June 9th 2015

PASSIVHAUS BUILDING EFFICIENCY

(larger schemes and naked house)

Bram De Bruycker – architect

Owner b/consult ltd.
Technical Director Princedale EcoHaus ltd.

15 years experience in PassivHaus construction on the continent
with over 400 builds in homes, schools, offices, hotels etc.

Bram De Bruycker – Owner b/consult Ltd. – bram@b-consult.uk

Technical Director Princedale EcoHaus Ltd. – bram@princedalehomes.com

VOLVO TRUCKS - GENT



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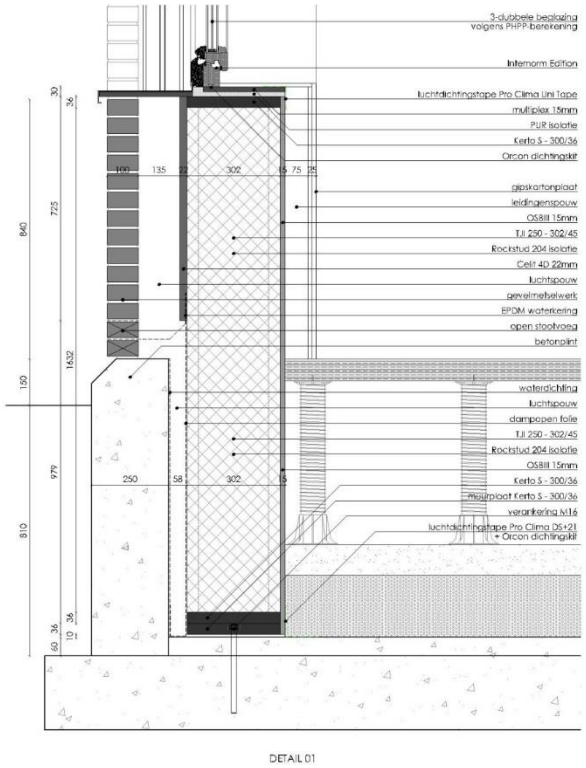
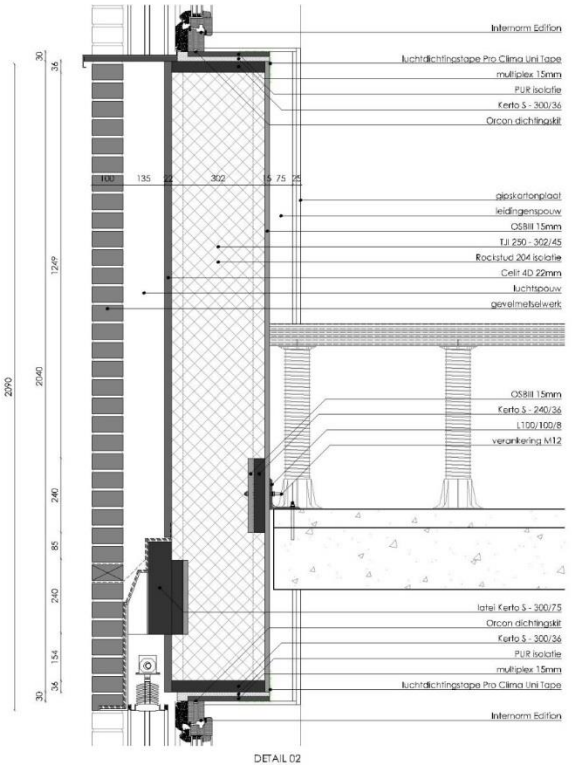
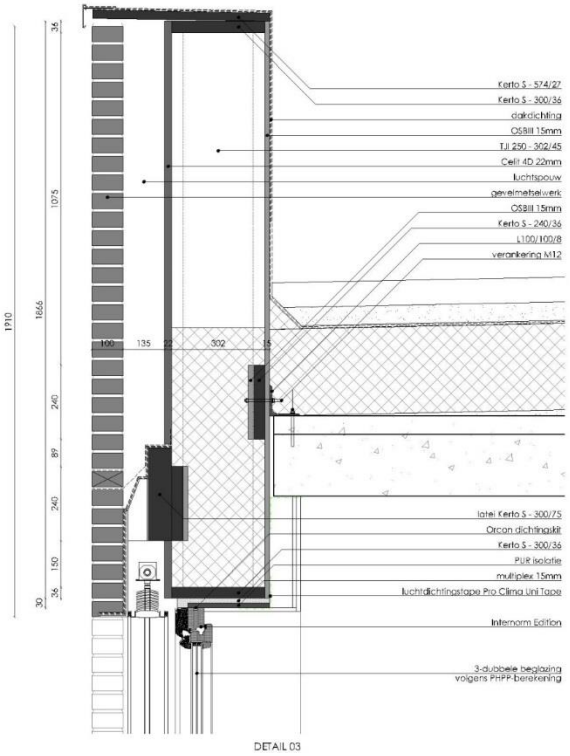
VOLVO TRUCKS - GENT







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SOCIAL HOUSING - BRUSSELS





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SOCIAL HOUSING - BRUSSELS

Passivhaus Trust
The UK Passive House Organisation



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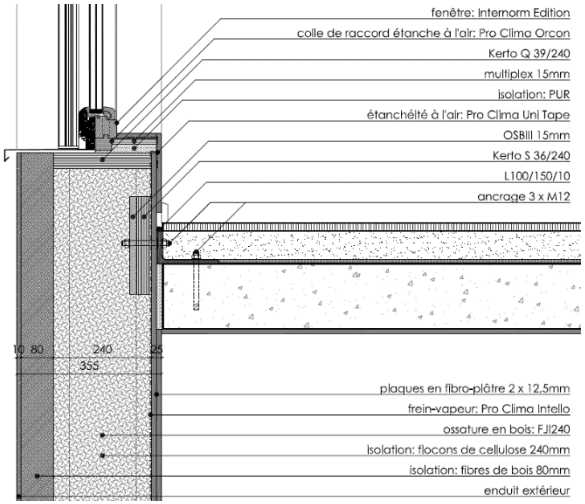

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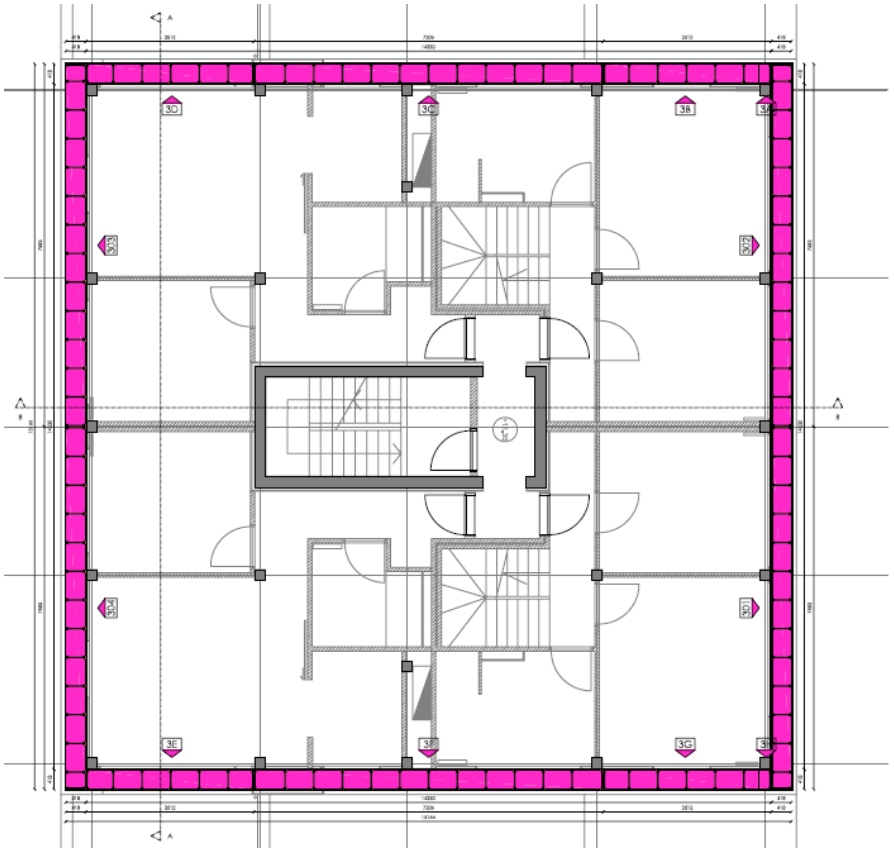

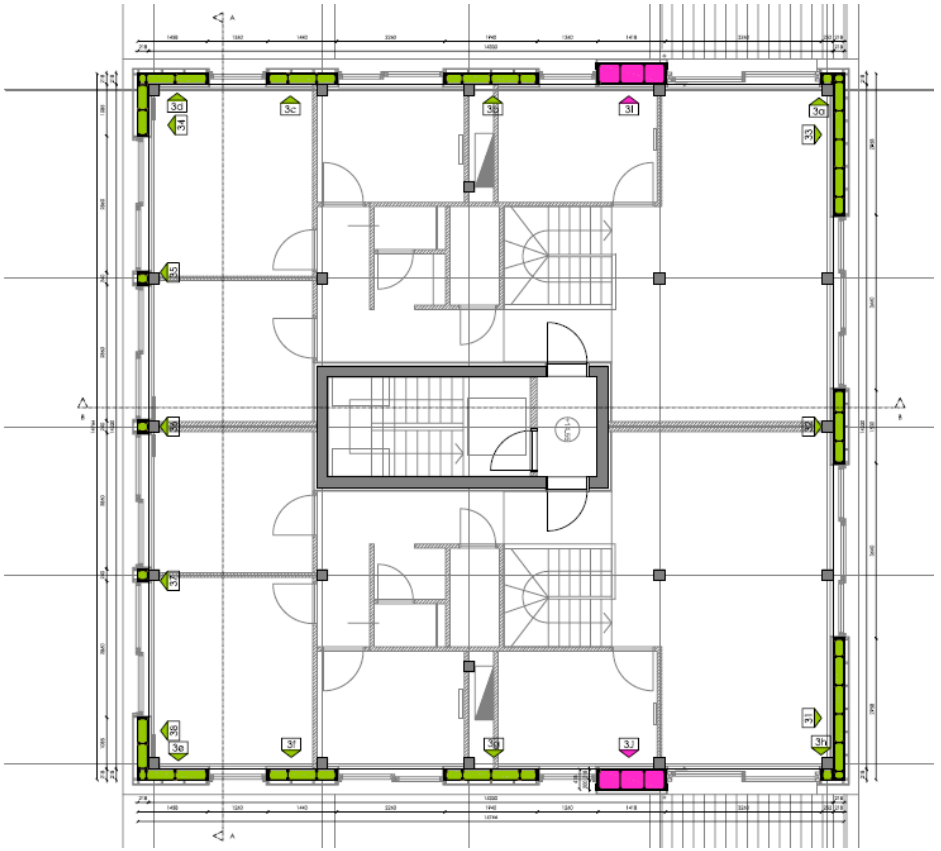

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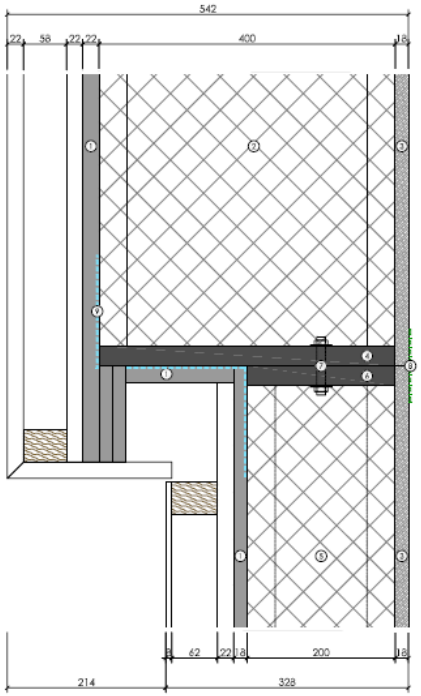

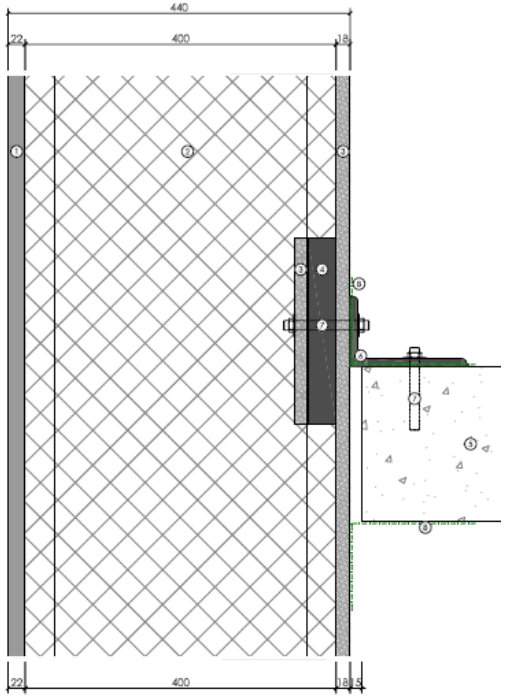



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ELIA HQ - BRUSSELS

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Facts:

- In 2012 the largest PassivHaus build in Europe
- 11,000m2 GIA
- 6,600m2 façade
- 7 storeys
- PassivHaus certified and BREAAM outstanding
- Building envelope – 6 weeks to install with a team of 6
- Façade €635/m2 – installed cost including

  Design – Windows – Insulation – Architectural Cladding – Solar Shading

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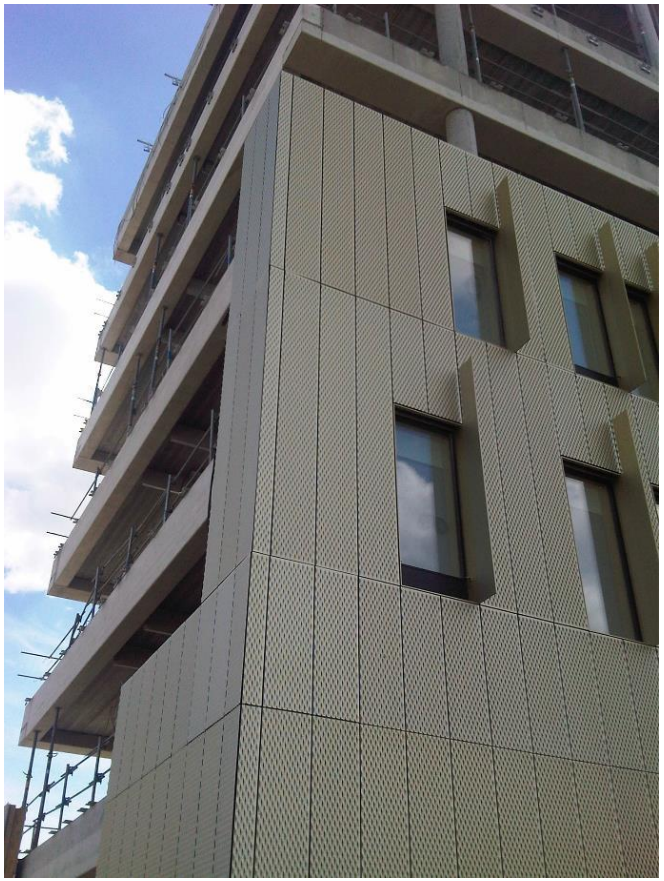



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TOWN HALL - LA LOUVIERE



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UNIVERSITY BUILDING - GENT



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SOCIAL HOUSING - RETROFIT - GENT



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SERVICE FLATS - RETROFIT - BRUSSELS



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SERVICE FLATS - RETROFIT - BRUSSELS

Facts:

- Formal glass curtain wall office building
- Low energy service flats – care home
- 11,500m2 GIA
- 4,400m2 façade
- 8 storeys
- 140 bedrooms
- 40 service flats
- Façade render and timber clad
- Façade €387/m2 – installed cost, including:

  Design – Windows – Insulation – Timber Cladding

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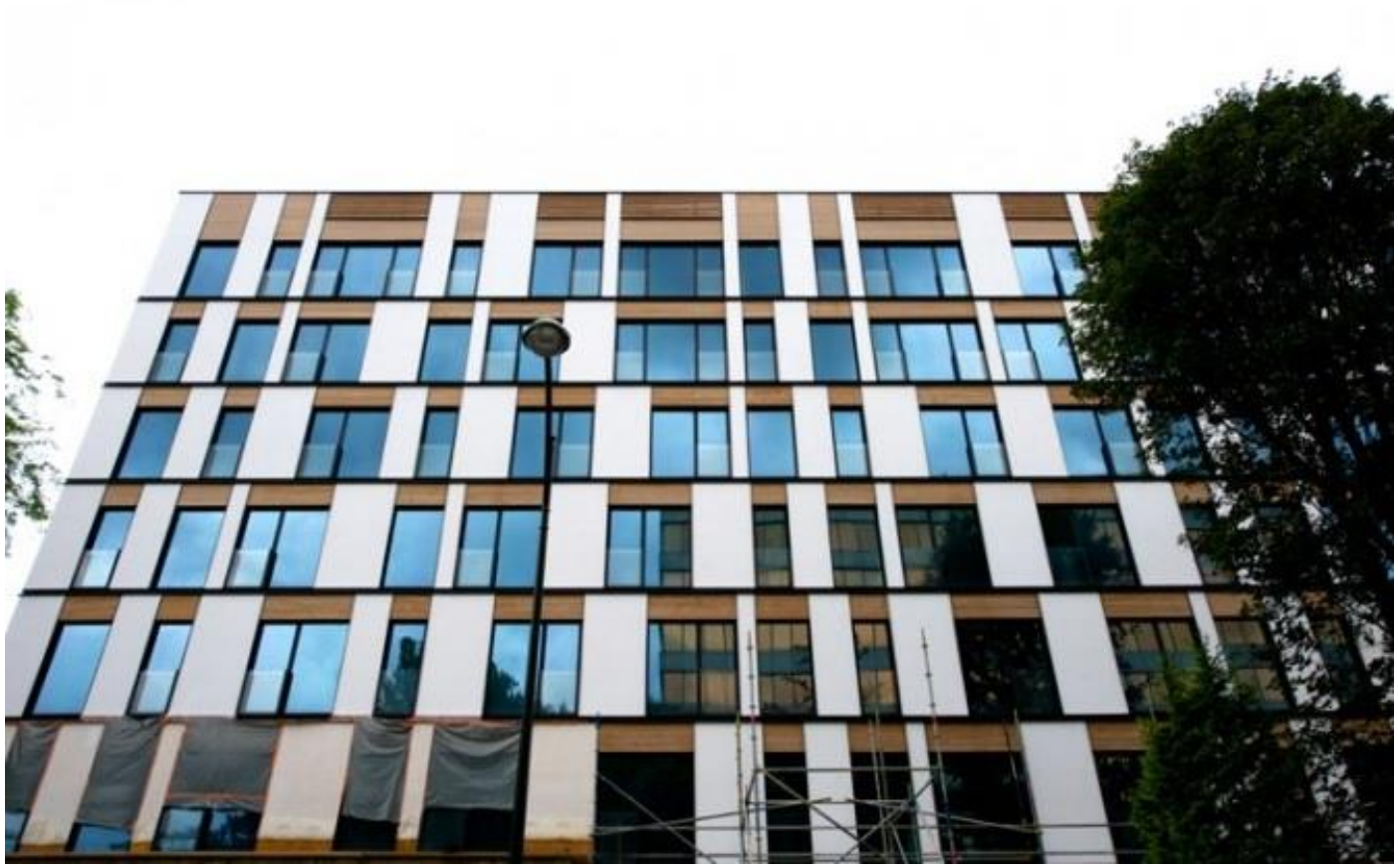

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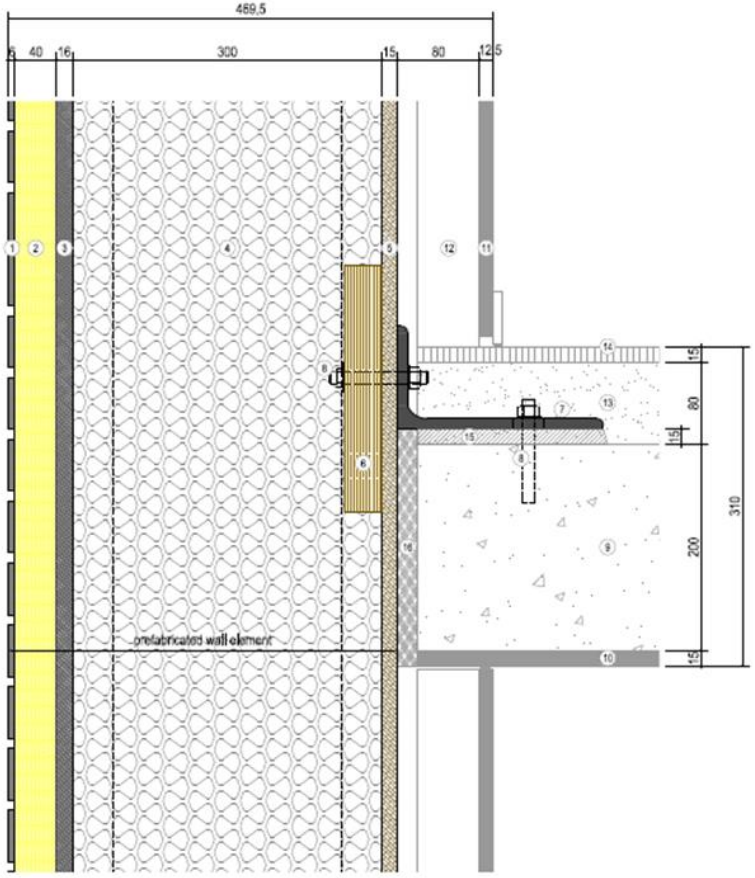
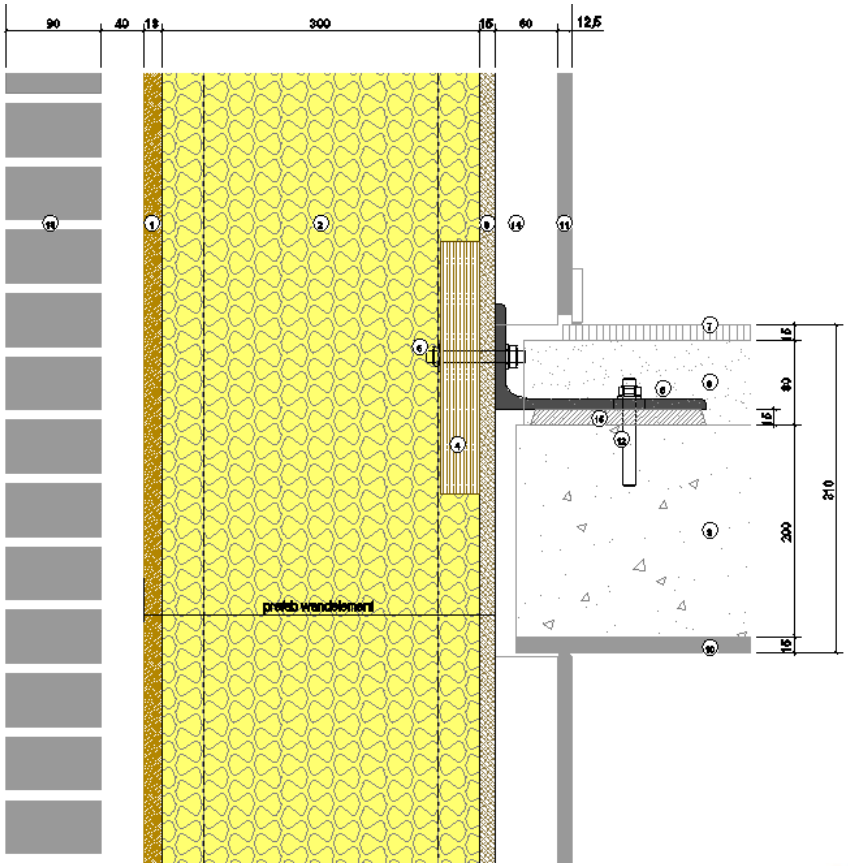
TYPICAL DETAIL





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The easy solution for contractors and self-builders to construct the economic PassivHaus

NAKED HOUSE



- Complete, insulated, weather- and airtight construction
- Pre-fabricated with windows and first fix installed offsite
- Guaranteed thermal performance
- Guaranteed airtight
- Sturdy timber frame system
- Expert design of integrated heating/HW & MVHR system, fully installed & commissioned
- Can be used to produce any house design
- Finished to your own specification
- Short construction time & quick turnaround
- Full PHPP calculations included & full architectural design service available

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NAKED HOUSE



PHASE 1: (main contractor)

- Install Foundations, slab, drains and below ground services
- PD&G check and sign off foundation

PHASE 2:

- PD&G Install Naked House
- Commission Mechanical services

PHASE 3: (main contractor)



- External brick façade or render
- Install stack pipes and guttering
- Install skim walls
- Install internal doors, architraves, door linings and skirting boards
- Install bathrooms and kitchen etc.
- 2nd fix electrical and plumbing
- Decorating
- Final Airtight test

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SOCIAL HOUSING - RETROFIT - KERKRADE



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THANK YOU FOR YOUR ATTENTION

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