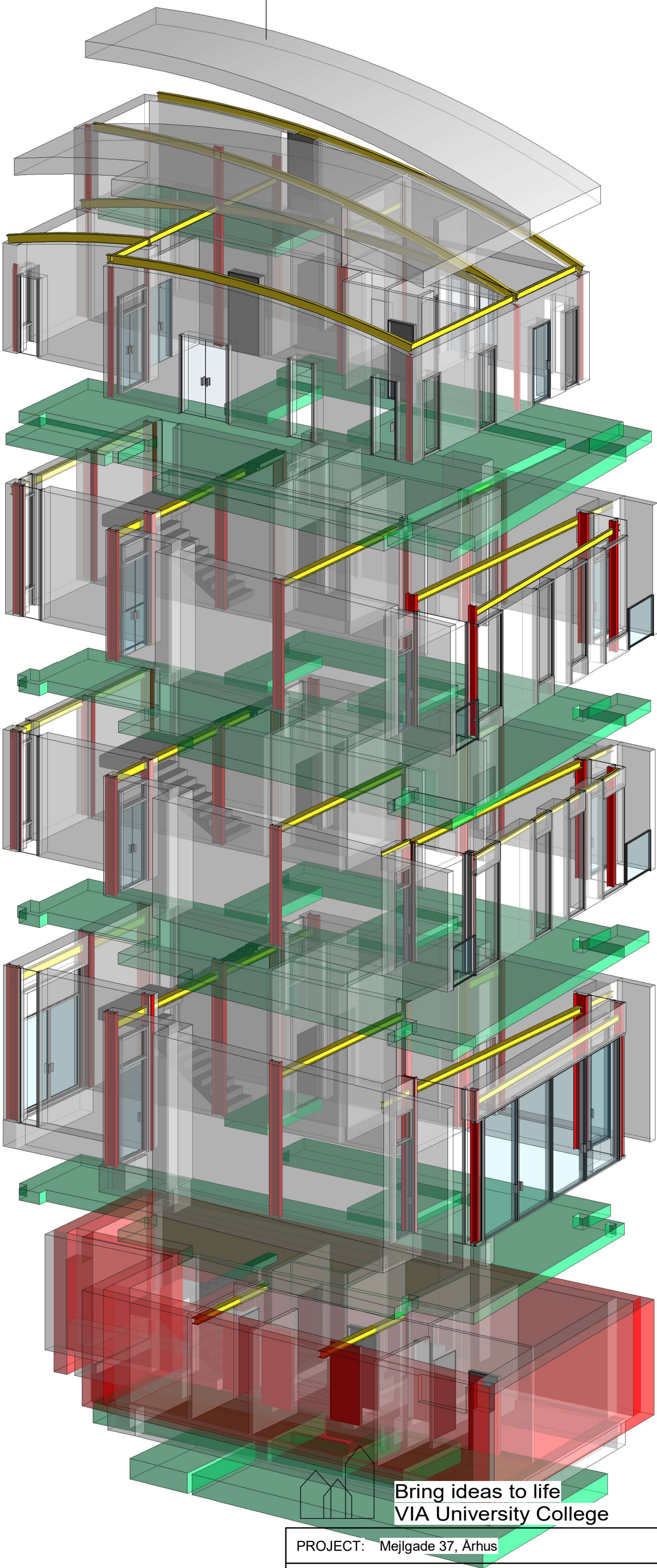






K01_TXX_H0_EX_N14

Functions

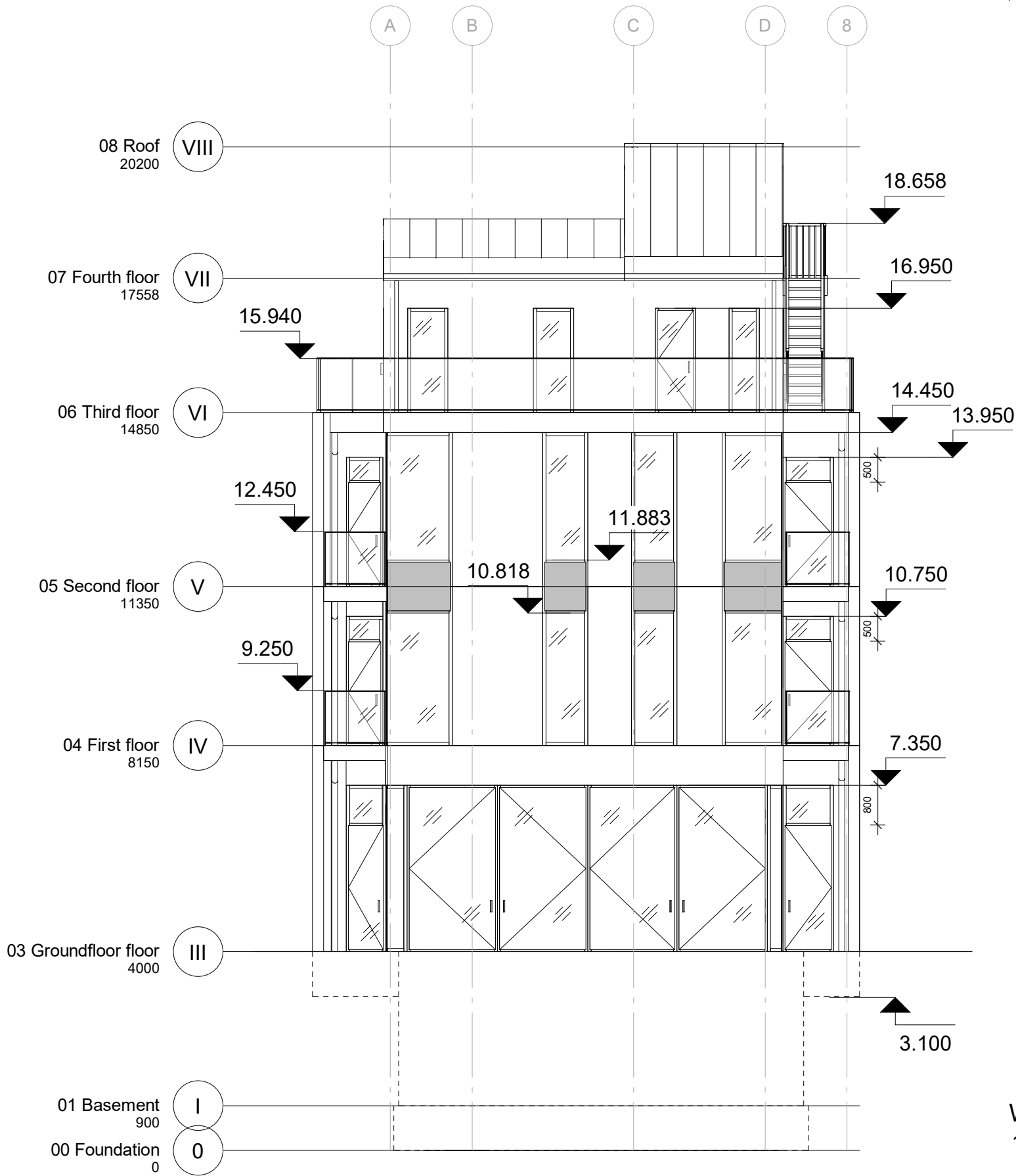
- Column
- Beam
- Slab

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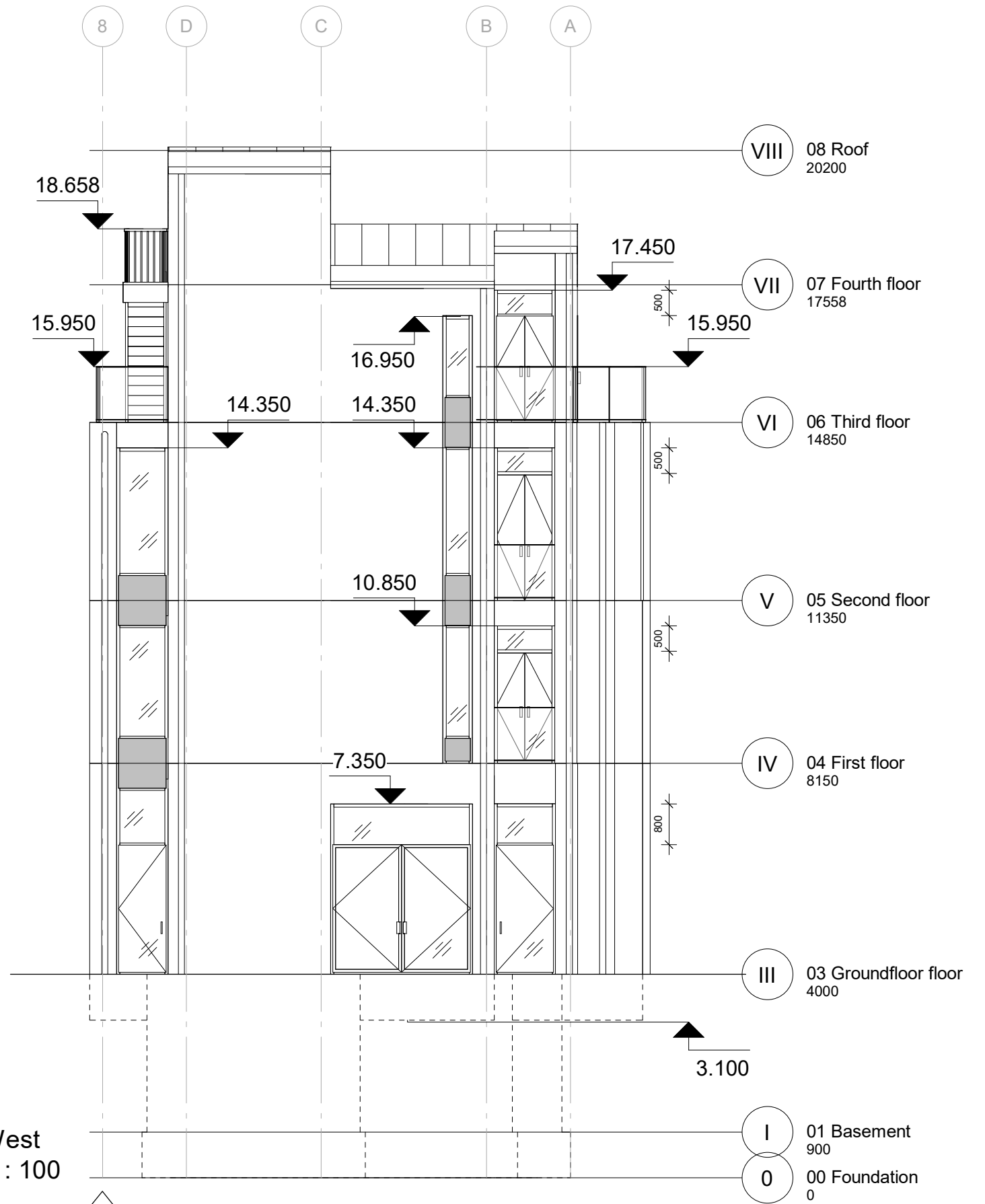
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3D Static analysis

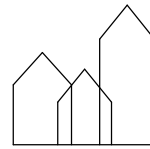
PROJECT: Mejlgade 37, Århus	DATE: 20.11.2020	K01_TXX_H0_EX_N14
SUBJECT: Static analysis, vertical	SCALE: 1 : 50	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



East
1 : 100



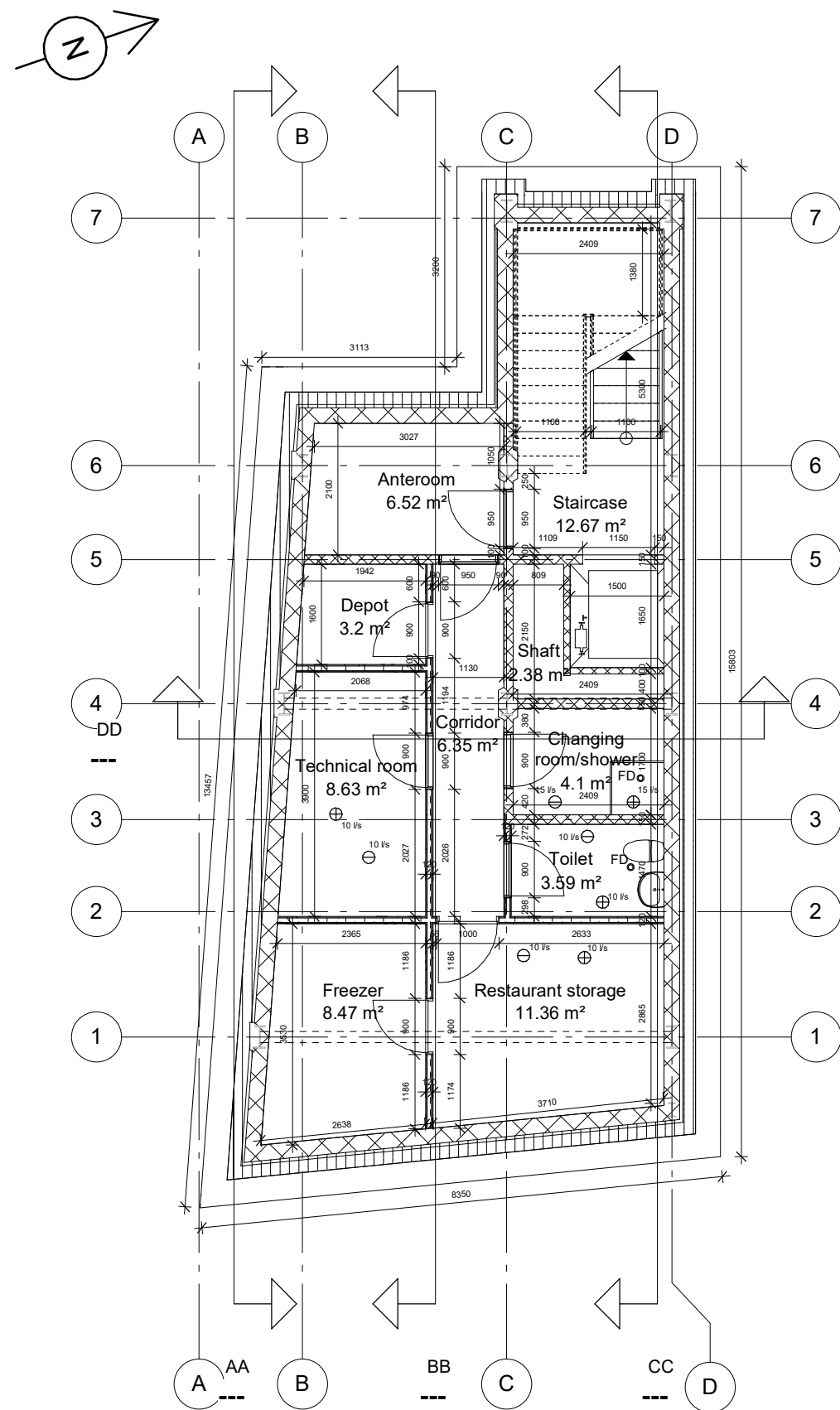
West
1 : 100



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PROJECT: Mejlgade 37, Århus	DATE: 22.12.2020	K01_TXX_H2_EX_N01
SUBJECT: East and West elevations	SCALE: 1 : 100	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



WALL 1 - BASEMENT WALL

REI 120

U-value = 0,13 W/m²K

- 250 mm cast-in-situ basement concrete wall (200 mm upper part, 350 mm parapet)
- 10 Ø8 mm Y-steel horizontal reinforcement bars and 8 Ø12 mm Y-steel vertical reinforcement bars per lbm of wall
- 20 mm mortar to fill the gap between foundation and wall
- 50 mm polystyrene insulation + 50 in upper part
- 3 x 100 mm LECA blocks
- 200 mm thermo drain polystyrene insulation
- Textile cloth
- 400 mm sheet pile wall against soil pressure

GROUND SUPPORTED FLOOR 1

U-value = 0,09 W/m²K

- 50 mm sand as capillary breaking barrier
- Bitumen felt against radon penetration
- 2 x 200 mm XPS polystyrene insulation (e.g. Sundolitt)
- 0,2 mm PE foil as damp proof membrane
- 30 mm edge insulation
- 6 mm reinforcement mesh (Ø6 mm with 150 mm between bars)
- 100 mm cast-in-situ concrete slab, powerwashed for smooth, non-slip surface

GROUND SUPPORTED FLOOR 2 - IN WETROOM

U-value = 0,09 W/m²K

To existing layers:

- 30 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system and tile adhesive

INTERNAL WALLS

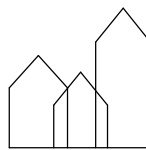
Heavy:

- 150/100 mm concrete, 2% reinforcement
- walls around staircase, installation shaft and bathroom post-insulated with 95 mm mineral wool and covered with 2 layers of 12,5 mm gypsum

Lightweight:

- 120 mm gypsum walls - 70 mm steel frame/mineral wool, 2 x 12,5 gypsum boards from both sides

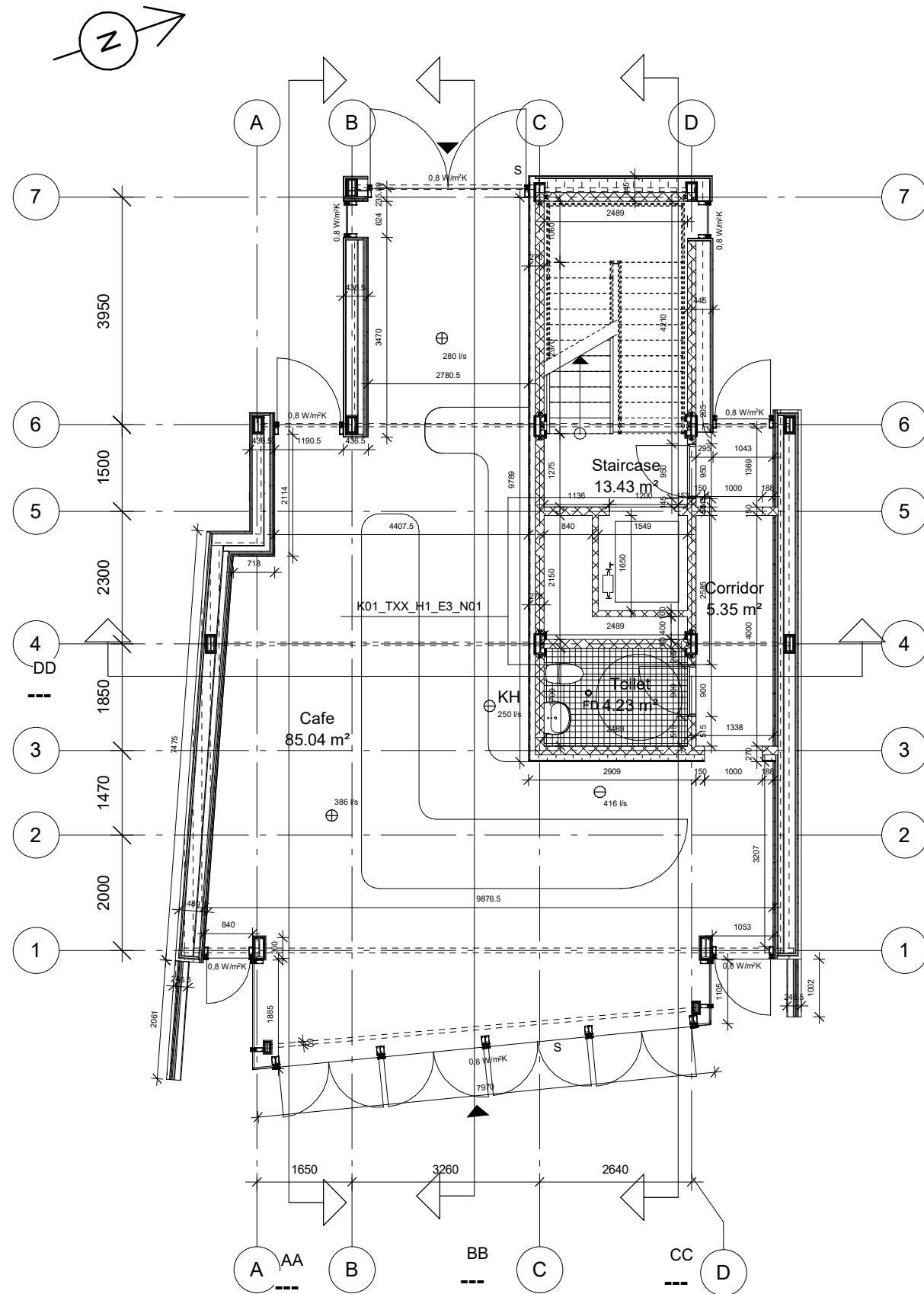
- ← (Z) North arrow
- ⊕ air extraction
- ⊖ air inlet
- 10 l/s amount of necessary air exchahnge with balanced ventilation
- FD floor drain
- I IPE hot-dip galvanized steel column, sizes according to Beam and Column calculation
- ⋯ hot-dip galvanized steel beam (overhead), sizes according to Beam and Column calculation
- RO rescue opening
- S safety glass



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PROJECT: Mejlgade 37, Århus	DATE: 24.12.2020	K01_TXX_H1_E1_N01
SUBJECT: Basement plan	SCALE: 1 : 100	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



DECK 1 - HODY FLOOR PARTITION
EI 120

- Rw = 63 dB / Lw = 50 dB**
- 10 x 80 x 1000 mm rubber step sound reducing strip
 - 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
 - 150 mm HODY steel plate
 - Anchor rod for fixing HODY plates
 - Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
 - Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
 - 70 mm thick foam wave block placed at the end of each non-loadbearing connection
 - Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)

DECK 1 - TIMBER FLOOR

- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 1 mm elastic wooden floor adhesive suitable for screed subfloors
- 22 x 207 x 2200 mm wooden floor boards

DECK 2 - WETROOM FLOOR

- 20 mm hard edge insulation
- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system (e.g. Alfix) and tile adhesive

STEEL SYSTEM AND FIRE ENCASEMENT
REI 120

- galvanized steel column
- galvanized steel beam
- 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
- 15 mm x 60 mm wide Glasroc F firecase backing strip
- 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

INTERNAL WALLS

- Heavy:
- 150/100 mm concrete, 2% reinforcement
 - walls around staircase, installation shaft and bathroom post-insulated with 95 mm mineral wool and covered with 2 layers of 12,5 mm gypsum
- Lightweight:
- 120 mm gypsum walls - 70 mm steel frame/mineral wool, 2 x 12,5 gypsum boards from both sides

WALL 2 - EXTERNAL CONCRETE AND STEEL STUD WALL
EI 120

- U-value = 0,11 W/m²K**
Rw = 55 dB
- 150 concrete wall
 - 245 mm Thermonomic steel stud system
 - 245 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
 - 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
 - 25 mm omega profile
 - 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

WALL 3 - EXTERNAL STEEL STUD AND GYPSUM WALL
EI 120

- U-value = 0,11 W/m²K**
Rw = 55 dB
- 195 mm Thermonomic steel stud system
 - 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
 - 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
 - 12,5 mm Gyproc Normal Ergo
 - 0,2 mm PE-foil as damp proof membrane
 - 90 mm internal steel stud system
 - 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
 - 60 mm Gyproc I-stud framework for FireWall
 - 19 mm Gyproc Core Board between studs
 - 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
 - 25 mm omega profile
 - 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

WALL 4 - PREFABRICATED EXTERNAL STEEL STUD AND GYPSUM WALL
EI 120

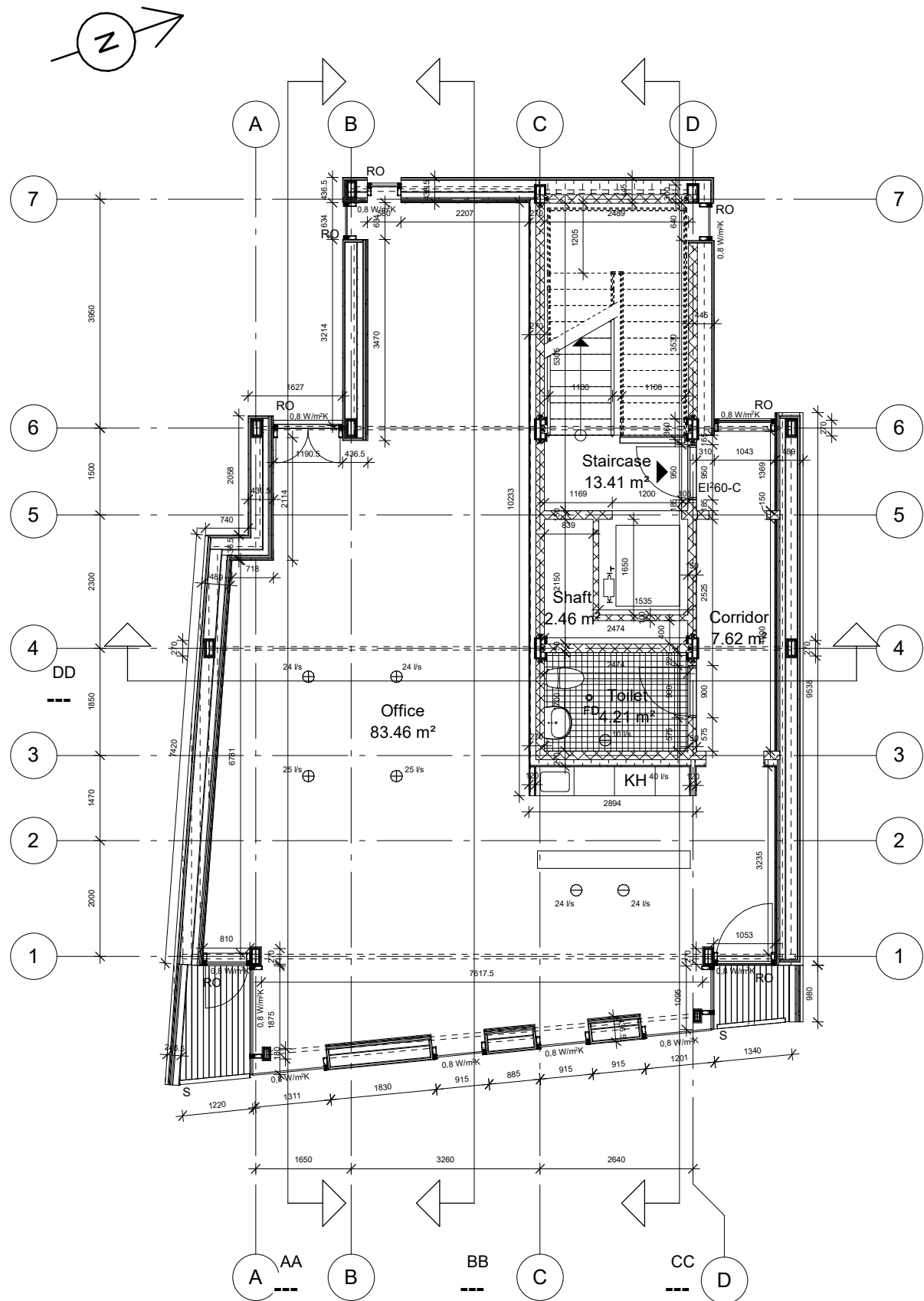
- U-value = 0,11 W/m²K**
Rw = 55 dB
- Same construction, but prefabricated by panels, mounted with crane on-site.
- Additional elements:
- 2 x 45 x 100 mm wooden planks for horizontal screwing
 - 50 mm Rockwool breathable insulation to fill the gap between buildings
 - Plastic dowel with 100 mm dowel head, placed in pre-drilled holes at insulation batts connections and each 600 mm
 - additional Grip Lock plates can be added for insulation attachment under each batt

- ← Z North arrow
- ⊕ air extraction
- ⊖ air inlet
- 10 l/s amount of necessary air exchange with balanced ventilation
- FD floor drain
- I IPE hot-dip galvanized steel column, sizes according to Beam and Column calculation
- [-----] hot-dip galvanized steel beam (overhead), sizes according to Beam and Column calculation
- RO rescue opening
- S safety glass

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PROJECT: Mejlgade 37, Århus	DATE: 24.12.2020	K01_TXX_H1_E3_N01
SUBJECT: Floor plan - groundfloor	SCALE: 1 : 100	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



DECK 1 - HODY FLOOR PARTITION

EI 120

Rw = 63 dB / Lw = 50 dB

- 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
- 150 mm HODY steel plate
- Anchor rod for fixing HODY plates
- Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
- Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
- 70 mm thick foam wave block placed at the end of each non-loadbearing connection
- Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)

DECK 1 - TIMBER FLOOR

- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 1 mm elastic wooden floor adhesive suitable for screed subfloors
- 22 x 207 x 2200 mm wooden floor boards

DECK 2 - WETROOM FLOOR

- 20 mm hard edge insulation
- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system (e.g. Alfix) and tile adhesive

STEEL SYSTEM AND FIRE ENCASEMENT

REI 120

- galvanized steel column
- galvanized steel beam
- 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
- 15 mm x 60 mm wide Glasroc F firecase backing strip
- 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

DECK 3 - ROOF TERRACE

EI 120

Rw = 55 dB / Lw = 55 dB

- 2 mm polymer damp-proof membrane reinforced with polyester felt and aluminum coating
- Kingspan Therma TT47 (0,024 W/mK)
- Protan T - terrace polyester-reinforced membrane glued with adhesive according to manufacturer
- Adjustable 100% recyclable plastic tile footing with click-in system
- 24 x 600 x 600 mm composite porcelain tiles with wooden texture appearance

BALCONY

- Halfen SBC steel balcony connector with thermal separator
- IPE 100 galvanized steel beam
- UNP beam (channel), 55 x 100 mm, fixed to IPE and UNP beams for stabilization
- UNP beams (channel), 65 x 160 mm, cc 400, fixed on top of IPE beams
- 3 mm x 600 mm aluminum sheet
- Stainless steel railing with glass panels
- 25 x 100 x 2700 mm pressure-treated timber decking
- 12,5 x 300 mm gypsum-based composite boards (e.g. Fermacell Fibergypsum/Powerpanel)

INTERNAL WALLS

Heavy:

- 150/100 mm concrete, 2% reinforcement
- walls around staircase, installation shaft and bathroom post-insulated with 95 mm mineral wool and covered with 2 layers of 12,5 mm gypsum

Lightweight:

- 120 mm gypsum walls - 70 mm steel frame/mineral wool, 2 x 12,5 gypsum boards from both sides

WALL 2 - EXTERNAL CONCRETE AND STEEL STUD WALL

EI 120

U-value = 0,11 W/m²K

Rw = 55 dB

- 150 concrete wall
- 245 mm Thermoconic steel stud system
- 245 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 25 mm omega profile
- 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

WALL 3 - EXTERNAL STEEL STUD AND GYPSUM WALL

EI 120

U-value = 0,11 W/m²K

Rw = 55 dB

- 195 mm Thermoconic steel stud system
- 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 12,5 mm Gyproc Normal Ergo
- 0,2 mm PE-foil as damp proof membrane
- 90 mm internal steel stud system
- 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 60 mm Gyproc I-stud framework for FireWall
- 19 mm Gyproc Core Board between studs
- 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
- 25 mm omega profile
- 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

WALL 4 - PREFABRICATED EXTERNAL STEEL STUD AND GYPSUM WALL

EI 120

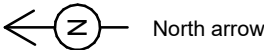
U-value = 0,11 W/m²K

Rw = 55 dB

Same construction, but prefabricated by panels, mounted with crane on-site.

Additional elements:

- 2 x 45 x 100 mm wooden planks for horizontal screwing
- 50 mm Rockwool breathable insulation to fill the gap between buildings
- Plastic dowel with 100 mm dowel head, placed in pre-drilled holes at insulation batts connections and each 600 mm
- additional Grip Lock plates can be added for insulation attachment under each batt



⊕ air extraction

⊖ air inlet

10 l/s amount of necessary air exchange with balanced ventilation

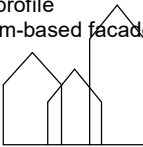
○ FD floor drain

I IPE hot-dip galvanized steel column, sizes according to Beam and Column calculation

⋯ hot-dip galvanized steel beam (overhead), sizes according to Beam and Column calculation

RO rescue opening

S safety glass



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PROJECT: Mejlgade 37, Århus

DATE: 24.12.2020

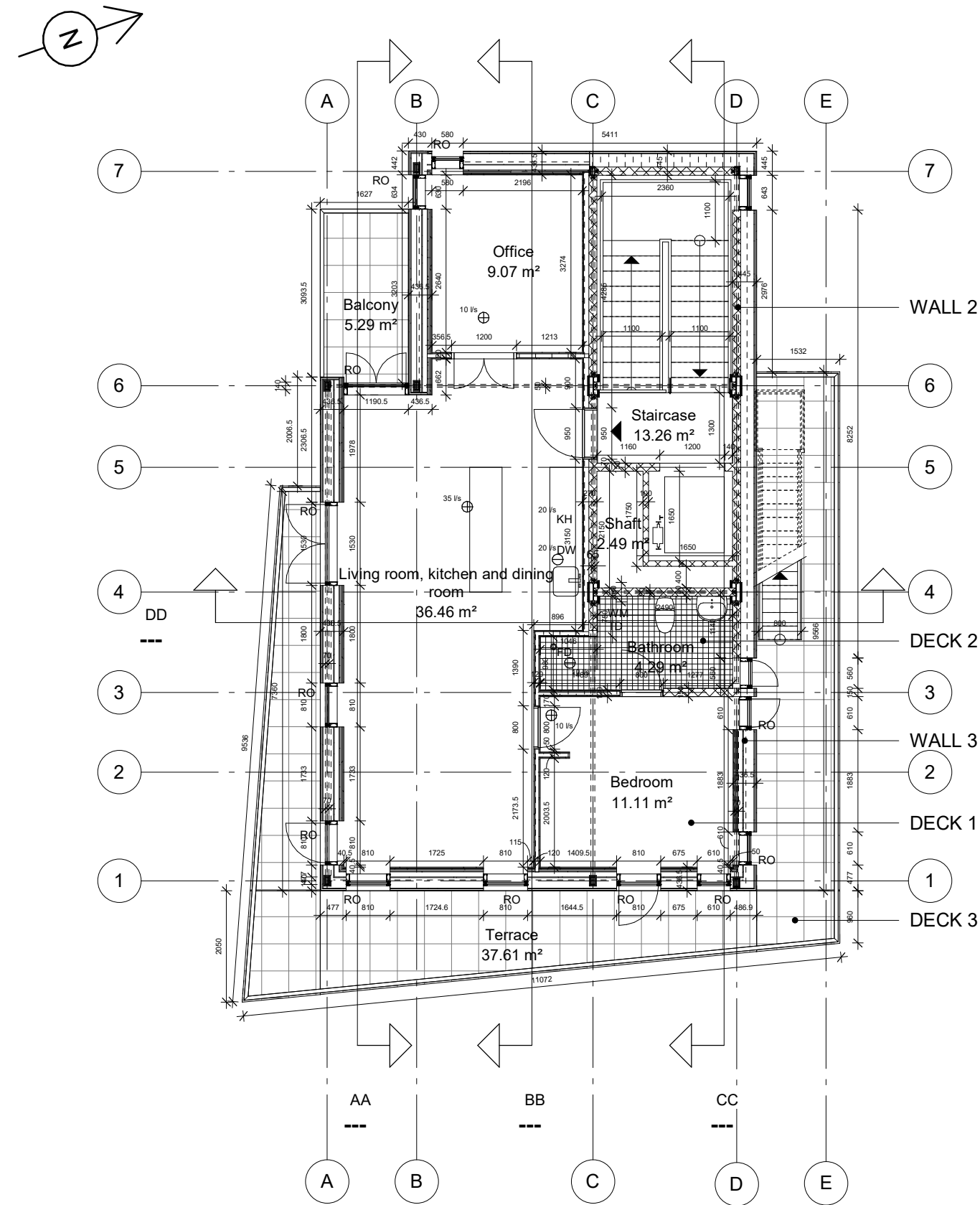
SUBJECT: Floor plan - first and second floor plans

SCALE: 1 : 100

K01_TXX_H1_E4_N01

ELABORATED BY: Carina Pronsaia

CLASS: AH71P-20S



DECK 1 - HODY FLOOR PARTITION

- EI 120
Rw = 63 dB / Lw = 50 dB
- 10 x 80 x 1000 mm rubber step sound reducing strip
 - 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
 - 150 mm HODY steel plate
 - Anchor rod for fixing HODY plates
 - Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
 - Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
 - 70 mm thick foam wave block placed at the end of each non-loadbearing connection
 - Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)

DECK 1 - TIMBER FLOOR

- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 1 mm elastic wooden floor adhesive suitable for screed subfloors
- 22 x 207 x 2200 mm wooden floor boards

DECK 2 - WETROOM FLOOR

- 20 mm hard edge insulation
- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system (e.g. Alfix) and tile adhesive

STEEL SYSTEM AND FIRE ENCASEMENT

- REI 120
- galvanized steel column
 - galvanized steel beam
 - 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
 - 15 mm x 60 mm wide Glasroc F firecase backing strip
 - 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

DECK 3 - ROOF TERRACE

- EI 120
Rw = 55 dB / Lw = 55 dB
- 2 mm polymer damp-proof membrane reinforced with polyester felt and aluminum coating
 - Kingspan Therma TT47 (0,024 W/mK)
 - Protan T - terrace polyester-reinforced membrane glued with adhesive according to manufacturer
 - Adjustable 100% recyclable plastic tile footing with click-in system
 - 24 x 600 x 600 mm composite porcelain tiles with wooden texture appearance

BALCONY

- Halfen SBC steel balcony connector with thermal separator
- IPE 100 galvanized steel beam
- UNP beam (channel), 55 x 100 mm, fixed to IPE and UNP beams for stabilization
- UNP beams (channel), 65 x 160 mm, cc 400, fixed on top of IPE beams
- L-shaped galvanized steel beam for drain sheeting support
- 3 mm x 600 mm aluminum sheet
- Stainless steel railing with glass panels
- 25 x 100 x 2700 mm pressure-treated timber decking
- 12,5 x 300 mm gypsum-based composite boards (e.g. Fermacell Fibergypsum/Powerpanel)

INTERNAL WALLS

- Heavy:
- 150/100 mm concrete, 2% reinforcement
 - walls around staircase, installation shaft and bathroom post-insulated with 95 mm mineral wool and covered with 2 layers of 12,5 mm gypsum
- Lightweight:
- 120 mm gypsum walls - 70 mm steel frame/mineral wool, 2 x 12,5 gypsum boards from both sides

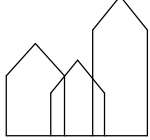
WALL 3 - EXTERNAL STEEL STUD AND GYPSUM WALL

- EI 120
U-value = 0,11 W/m²K
Rw = 55 dB
- 195 mm Thermonomic steel stud system
 - 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
 - 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
 - 12,5 mm Gyproc Normal Ergo
 - 0,2 mm PE-foil as damp proof membrane
 - 90 mm internal steel stud system
 - 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
 - 60 mm Gyproc I-stud framework for FireWall
 - 19 mm Gyproc Core Board between studs
 - 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
 - 25 mm omega profile
 - 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

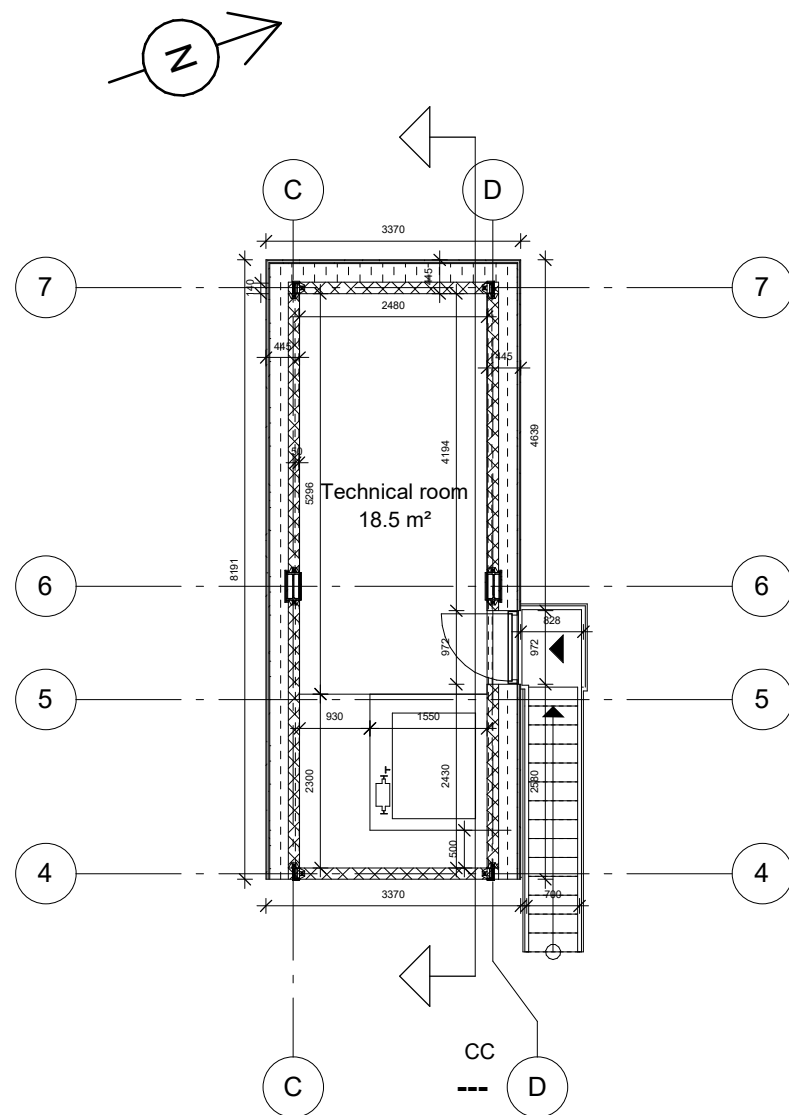
WALL 2 - EXTERNAL CONCRETE AND STEEL STUD WALL

- EI 120
U-value = 0,11 W/m²K
Rw = 55 dB
- 150 concrete wall
 - 245 mm Thermonomic steel stud system
 - 245 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
 - 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
 - 25 mm omega profile
 - 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

- North arrow
- air extraction
- air inlet
- amount of necessary air exchange with balanced ventilation
- floor drain
- hot-dip galvanized steel beam (overhead), sizes according to Beam and Column calculation
- IPE hot-dip galvanized steel column, sizes according to Beam and Column calculation
- rescue opening
- safety glass



PROJECT: Mejlgade 37, Århus	DATE: 24.12.2020	K01_TXX_H1_E6_N01
SUBJECT: Floor plan - third floor	SCALE: 1 : 100	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



DECK 1 - HODY FLOOR PARTITION

EI 120

Rw = 63 dB / Lw = 50 dB

- 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
- 150 mm HODY steel plate
- Anchor rod for fixing HODY plates
- Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
- Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
- 70 mm thick foam wave block placed at the end of each non-loadbearing connection
- Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)

STEEL SYSTEM AND FIRE ENCASEMENT

REI 120

- galvanized steel column
- galvanized steel beam
- 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
- 15 mm x 60 mm wide Glasroc F firecase backing strip
- 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

INTERNAL WALLS

Heavy:

- 150/100 mm concrete, 2% reinforcement
- walls around staircase, installation shaft and bathroom post-insulated with 95 mm mineral wool and covered with 2 layers of 12,5 mm gypsum

Lightweight:

- 120 mm gypsum walls - 70 mm steel frame/mineral wool, 2 x 12,5 gypsum boards from both sides

WALL 2 - EXTERNAL CONCRETE AND STEEL STUD WALL

EI 120

U-value = 0,11 W/m²K

Rw = 55 dB

- 150 concrete wall
- 245 mm Thermonomic steel stud system
- 245 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 25 mm omega profile
- 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

North arrow

air extraction

air inlet

amount of necessary air exchange with balanced ventilation

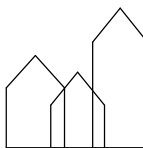
FD floor drain

IPE hot-dip galvanized steel column, sizes according to Beam and Column calculation

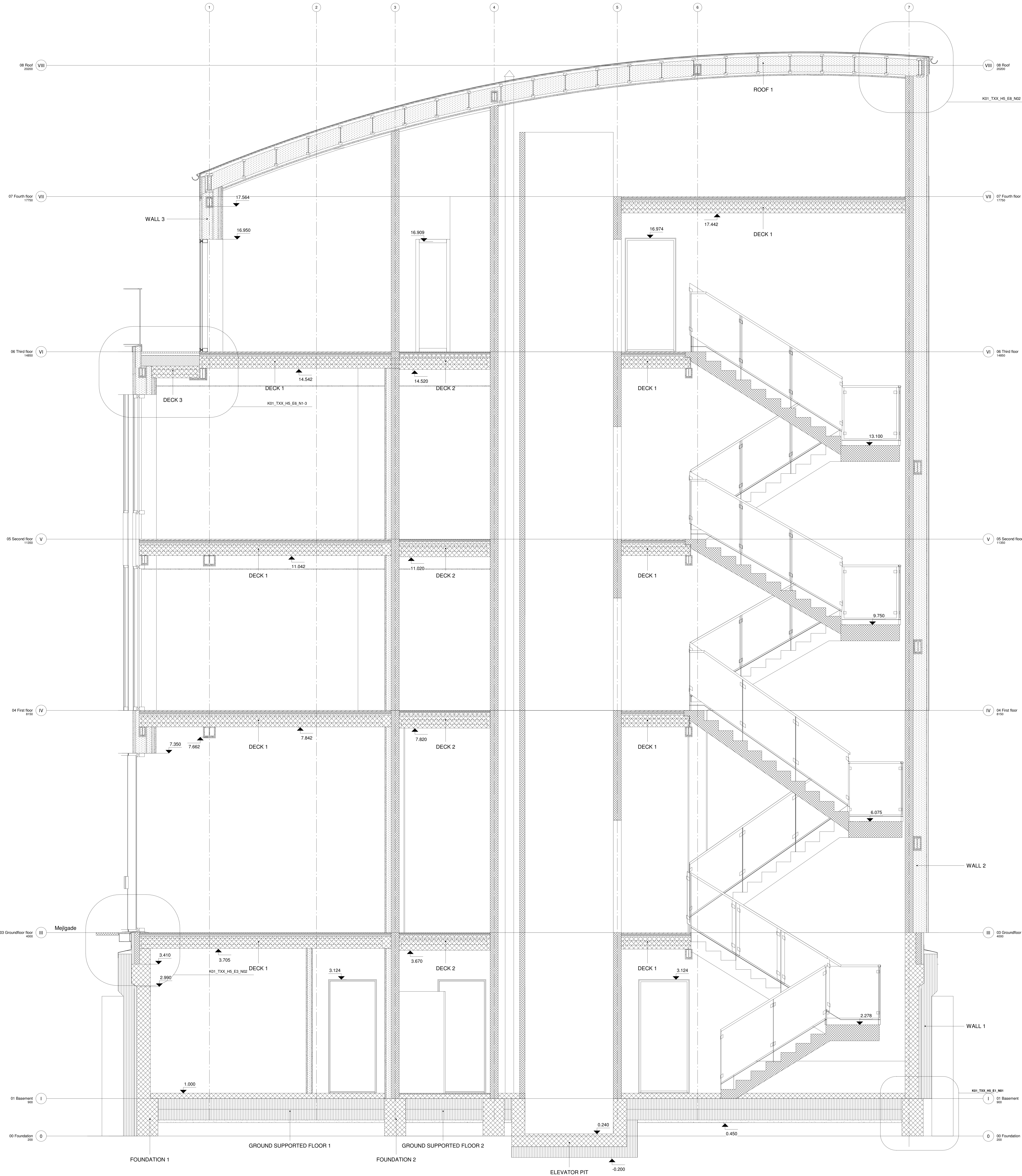
hot-dip galvanized steel beam (overhead), sizes according to Beam and Column calculation

RO rescue opening

S safety glass



PROJECT: Mejlgade 37, Århus	DATE: 24.12.2020	K01_TXX_H1_E7_N01
SUBJECT: Floor plan - fourth floor	SCALE: 1 : 100	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



FOUNDATION 1 - EXTERNAL FOUNDATION

Linear loss = 0,12 W/mK
- Cast-in-situ strip foundation, according to engineering calculation, but min. width 400 mm and to frost free depth
- 4 Ø14 mm Y-steel reinforcement bars and Ø8 mm support stirrups placed each 1000 mm

FOUNDATION 2 - INTERNAL FOUNDATION

Linear loss = 0,12 W/mK
- Cast-in-situ strip foundation, according to engineering calculation, but min. width 300 mm
- 4 Ø14 mm Y-steel reinforcement bars and Ø8 mm support stirrups placed each 1000 mm

ELEVATOR PIT

U-value = 0,16 W/m²K
- 150 mm sand
- 100 mm XPS polystyrene insulation
- Vertical and horizontal reinforcement (min. 2%)
- 200 mm cast-in-situ concrete slab
- Vandex waterproofing system

WALL 1 - BASEMENT WALL

REI 120
U-value = 0,13 W/m²K
- 250 mm cast-in-situ basement concrete wall (200 mm upper part, 350 mm parapet)
- 10 Ø8 mm Y-steel horizontal reinforcement bars and 8 Ø12 mm Y-steel vertical reinforcement bars per 1m of wall
- 20 mm mortar to fill the gap between foundation and wall
- 50 mm polystyrene insulation + 50 in upper part
- 3 x 100 mm LECA blocks
- 200 mm thermo drain polystyrene insulation
- Textile cloth
- 400 mm sheet pile wall against soil pressure

GROUND SUPPORTED FLOOR 1

U-value = 0,09 W/m²K
- 50 mm sand as capillary breaking barrier
- Bitumen felt against radon penetration
- 2 x 200 mm XPS polystyrene insulation (e.g. Sundolit)
- 0,2 mm PE foil as damp proof membrane
- 30 mm edge insulation
- 6 mm reinforcement mesh (Ø6 mm with 150 mm between bars)
- 100 mm cast-in-situ concrete slab, powerwashed for smooth, non-slip surface

GROUND SUPPORTED FLOOR 2 - IN WETROOM

U-value = 0,09 W/m²K
To existing layers:
- 30 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system and tile adhesive

PREFABRICATED CONCRETE STAIRS

R 30 A2-s1,d0
1,3 sec reverberation time
- prefabricated concrete stairs, 300 mm landing
- 5 mm x 1200 mm x 25mm Impactfoam closed cell polyethylene acoustic foam in rolls glued to concrete surface
- up to 48dB impact sound reduction with 50 mm of screed on top
- 25 mm edge flanking
- covered with 20 mm x 50 mm wire mesh against puncture
- 40 mm Webercem lightweight polymer-modified, cementitious mortar with special lightweight fillers
- applied on Webercem bondcoat primer
- polished for smooth finish
- 300 mm x 6 mm slip-resistant carbonbrum inserts
- 25 mm x 600 mm x 1200 mm Trollekt woodcrete boards improving reverberation time in staircase, attached under flights on each floor according to reverberation time calculation

DECK 1 - HOODY FLOOR PARTITION

EI 120
Rw = 63 dB / Lw = 50 dB
- 10 x 80 x 1000 mm rubber step sound reducing strip
- 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
- HOODY steel plate
- height 150 mm
- nominal width 1010 mm
- standard lengths from 2400 mm to 12000 mm
- steel thickness 0,8 - 1 mm
- plates connected with HOODY self-drilling screws each 350 mm
- Anchor rod for fixing HOODY plates
- Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HOODY "wave"
- Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
- 70 mm thick foam wave block placed at the end of each non-loadbearing connection
- Cast-in-situ concrete, 70 mm on top of HOODY plate (or according to manufacturer's design to achieve EI120)

DECK 1 - TIMBER FLOOR

- 20 mm hard edge insulation
- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 1 mm elastic wooden floor adhesive suitable for screed subfloors
- 22 x 207 x 2200 mm wooden floor boards

DECK 2 - WETROOM FLOOR

- 20 mm hard edge insulation
- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system (e.g. Aflix) and tile adhesive

SUSPENDED CEILING

- Suspension hook
- length 80 - 1500 mm
- fixed into the structure in rows each 1200 mm
- clamped to the profile with pliers
- Carrying profile
- length 3600 mm
- distance: 600 mm
- Connection profile
- length 600 mm
- 600 x 600 x 12,5 mm removable ceiling gypsum board

STEEL SYSTEM AND FIRE ENCASUREMENT

REI 120
- galvanized steel column
- galvanized steel beam
- 180 x 180 angle galvanized steel profile for terrace deck support, 16 mm thick
- 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
- 15 mm x 60 mm wide Glasroc F firecase backing strip
- Gytrframe FEA1 Steel Angle suitably fixed to beam flange at 600 mm centres
- 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

DECK 3 - ROOF TERRACE

EI 120
Rw = 55 dB / Lw = 55 dB
- 2 mm polymer damp-proof membrane reinforced with polyester felt and aluminum coating
- 20 mm hard edge insulation
- Kingspan Therma IT47
- first layer 120 mm
- second and third layers sloped insulation (1:40)
- lambda 0,024 W/mK for more than 120 mm total insulation
- 1200 x 1200 mm plate size
- Protan Grip Steel bar
- Protan corner strip
- Protan T - terrace polyester-reinforced membrane glued with adhesive according to manufacturer
- thickness - 2 mm
- length - 20 m
- width - 1 m
- Adjustable 100% recyclable plastic tile footing with click-in system
- 24 x 600 x 600 mm composite porcelain tiles with wooden texture appearance, non-slippery, resistant to frost, mold growth, stains, scratch and fade
- 15 x 150 x 1000 mm steel grating, safe against slipping

WALL 3 - EXTERNAL STEEL STUD AND GYPSUM WALL

EI 120
U-value = 0,11 W/m²K
Rw = 55 dB
- 195 mm Thermomonic steel stud system
- 195 mm mineral wool insulation (λ = 0,037 W/mK)
- 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 12,5 mm Gyproc Normal Ergo
- 0,2 mm PE-foil as damp proof membrane
- 90 mm internal steel stud system
- 90 mm mineral wool insulation (λ = 0,037 W/mK)
- 60 mm Gyproc I-stud framework for FireWall
- 25 mm Gytrframe retaining channel
- 19 mm Gyproc Core Board between studs
- 3 x 15 mm Gyproc Fire Line for 120 mm fire resistance
- 25 mm omega profile
- 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

WALL 4 - PREFABRICATED EXTERNAL STEEL STUD AND GYPSUM WALL

EI 120
U-value = 0,11 W/m²K
Rw = 55 dB
Same construction, but prefabricated by panels, mounted with crane on-site.
Additional elements:
- 2 x 45 x 100 mm wooden planks for horizontal screwing
- 50 mm Rockwool breathable insulation to fill the gap between buildings
- Plastic dowel with 100 mm dowel head, placed in pre-drilled holes at insulation batts connections and each 600 mm
- additional Grip Lock plates can be added for insulation attachment under each batt

WALL 2 - EXTERNAL CONCRETE AND STEEL STUD WALL

EI 120
U-value = 0,11 W/m²K
Rw = 55 dB
- 150 concrete wall
- 245 mm Thermomonic steel stud system
- 245 mm mineral wool insulation (λ = 0,037 W/mK)
- 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 25 mm omega profile
- 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

INTERNAL WALLS

Heavy:
- 150/100 mm concrete, 2% reinforcement
- walls around staircase, installation shaft and bathroom post-insulated with 95 mm mineral wool and covered with 2 layers of 12,5 mm gypsum
Lightweight:
- 120 mm gypsum walls - 70 mm steel frame/mineral wool, 2 x 12,5 mm gypsum boards from both sides

ROOF 1 - ZINC ROOF

EI 60
U-value = 0,11 W/m²K
55 dB
- 100 mm wide steel plate, pre-welded to IPE beam
- 63 x 45 mm top and bottom softwood flanges
- 9 mm OSB/3 web
- 6680 mm max. span
- cc 600
- double joist at gable connection
- 100 x 27 x 203 mm timber web fillers from both sides of the web
- 350 x 27 x 52 mm timber plate screwed to OSB/3 web for 110 mm joist extension for plywood support
- 50 x 110 x 63 mm timber batten screwed on top to joist extension plate for plywood support
- 300 mm mineral wool insulation (λ = 0,037 W/mK), therefore 50 mm ventilation gap
- 18 x 1220 x 2440 mm plywood roof underlay
- 25 mm omega profile for ventilation gap
- 18 x 330 mm plywood fascia board underlay
- 0,2 mm EPDM roof membrane
- 9 mm structured underlay (e.g. VAPOZINC)
- 0,7 x 600 x 4000 mm double standing seam zinc plates
- Perforated strip
- Base trim
- Zinc fascia profile
- 0,2 mm PE-foil as damp proof membrane
- 25 x 100 x 2400 mm ceiling battens, cc 400 (125 mm wide first batten)
- 2 x 12,5 x 800 x 2400 mm gypsum ceiling boards
- Eaves flashing
- Galvanized steel support profile
- Galvanized steel gutter bracket
- 120 mm zinc rainwater gutter

K01_TXX_H3_EX_N01

FOUNDATION 1 - EXTERNAL FOUNDATION

Linear loss = 0,12 W/mK

- Cast-in-situ strip foundation, according to engineering calculation, but min. width 400 mm and to frost free depth
- 4 Ø14 mm Y-steel reinforcement bars and Ø8 mm support stirrups placed each 1000 mm

FOUNDATION 2 - INTERNAL FOUNDATION

Linear loss = 0,12 W/mK

- Cast-in-situ strip foundation, according to engineering calculation, but min. width 300 mm
- 4 Ø14 mm Y-steel reinforcement bars and Ø8 mm support stirrups placed each 1000 mm

ELEVATOR PIT

U-value = 0,16 W/m²K

- 150 mm sand
- 100 mm XPS polystyrene insulation
- Vertical and horizontal reinforcement (min. 2%)
- 200 mm cast-in-situ concrete slab
- Vandex waterproofing system

WALL 1 - BASEMENT WALL

REI 120

U-value = 0,13 W/m²K

- 250 mm cast-in-situ basement concrete wall (200 mm upper part, 350 mm parapet)
- 10 Ø8 mm Y-steel horizontal reinforcement bars and 8 Ø12 mm Y-steel vertical reinforcement bars per 1bm of wall
- 20 mm mortar to fill the gap between foundation and wall
- 50 mm polystyrene insulation + 50 in upper part
- 3 x 100 mm LECA blocks
- 200 mm thermo drain polystyrene insulation
- Textile cloth
- 400 mm sheet pile wall against soil pressure

GROUND SUPPORTED FLOOR 1

U-value = 0,09 W/m²K

- 50 mm sand as capillary breaking barrier
- Bitumen felt against radon penetration
- 2 x 200 mm XPS polystyrene insulation (e.g. Sundolitt)
- 0,2 mm PE foil as damp proof membrane
- 30 mm edge insulation
- 6 mm reinforcement mesh (Ø6 mm with 150 mm between bars)
- 100 mm cast-in-situ concrete slab, powerwashed for smooth, non-slip surface

GROUND SUPPORTED FLOOR 2 - IN WETROOM

U-value = 0,09 W/m²K

To existing layers:

- 30 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system and tile adhesive

DECK 1 - HODY FLOOR PARTITION

EI 120

Rw = 63 dB / Lw = 50 dB

- 10 x 80 x 1000 mm rubber step sound reducing strip
- 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
- HODY steel plate
- height 150 mm
- nominal width 1010 mm
- standard lengths from 2400 mm to 12000 mm
- steel thickness 0,8 - 1 mm
- plates connected with HODY self-drilling screws each 350 mm
- Anchor rod for fixing HODY plates
- Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
- Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
- 70 mm thick foam wave block placed at the end of each non-loadbearing connection
- Cast-in-situ concrete, 70 mm on top of HODY plate (or accroding to manufacturer's design to achieve EI120)

DECK 1 - TIMBER FLOOR

- 20 mm hard edge insulation
- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 1 mm elastic wooden floor adhesive suitable for screed subfloors
- 22 x 207 x 2200 mm wooden floor boards

DECK 2 - WETROOM FLOOR

- 20 mm hard edge insulation
- 25 mm hard mineral wool insulation for step sound reduction
- 40 mm self-levelling screed
- 9 mm ceramic tiles on primed screed, tanking system (e.g. Aflix) and tile adhesive

SUSPENDED CEILING

- Suspension hook
- length 90 - 1500 mm
- fixed into the structure in rows each 1200 mm
- clamped to the profile with pliers
- Carrying profile
- length 3600 mm
- distance: 600 mm
- Connection profile
- lenght 600 mm
- 600 x 600 x 12,5 mm removable ceiling gypsum board

STEEL SYSTEM AND FIRE ENCASEMENT

REI 120

- galvanized steel column
- galvanized steel beam
- 180 x 180 angle galvanized steel profile for terrace deck support, 16 mm thick
- 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
- 15 mm x 60 mm wide Glasroc F firecase backing strip
- Gypframe FEA1 Steel Angle suitably fixed to beam flange at 600 mm centres
- 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

DECK 3 - ROOF TERRACE

EI 120

Rw = 55 dB / Lw = 55 dB

- 2 mm polymer damp-proof membrane reinforced with polyester felt and aluminum coating
- 20 mm hard edge insulation
- Kingspan Therma TT47
- first layer 120 mm
- second and third layers sloped insulation (1:40)
- lambda 0,024 W/mK for more than 120 mm total insulation
- 1200 x 1200 mm plate size
- Protan Grip Steel bar
- Protan corner strip
- Protan T - terrace polyester-reinforced membrane glued with adhesive according to manufacturer
- thickness - 2 mm
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U-value = 0,11 W/m²K

Rw = 55 dB

- 195 mm Thernomonic steel stud system
- 195 mm mineral wool insulation (λ = 0,037 W/mK)
- 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 12,5 mm Gyproc Normal Ergo
- 0,2 mm PE-foil as damp proof membrane
- 90 mm internal steel stud system
- 90 mm mineral wool insulation (λ = 0,037 W/mK)
- 60 mm Gyproc I-stud framework for FireWall
- 25 mm Gyprame retaining channel
- 19 mm Gyproc Core Board between studs
- 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
- 25 mm omega profile
- 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

WALL 4 - PREFABRICATED EXTERNAL STEEL STUD AND GYPSUM WALL

EI 120

U-value = 0,11 W/m²K

Rw = 55 dB

Same construction, but prefabricated by panels, mounted with crane on-site.

Additional elements:

- 2 x 45 x 100 mm wooden planks for horizontal screwing
- 50 mm Rockwool breathable insulation to fill the gap between buildings
- Plastic dowel with 100 mm dowel head, placed in pre-drilled holes at insulation batts connections and each 600 mm
- additional Grip Lock plates can be added for insulation attachment under each batt

WALL 2 - EXTERNAL CONCRETE AND STEEL STUD WALL

EI 120

U-value = 0,11 W/m²K

Rw = 55 dB

- 150 concrete wall
- 245 mm Thernomonic steel stud system
- 245 mm mineral wool insulation (λ = 0,037 W/mK)
- 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 25 mm omega profile
- 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

INTERNAL WALLS

Heavy:

- 150/100 mm concrete, 2% reinforcement
- walls around staircase, installation shaft and bathroom post-insulated with 95 mm mineral wool and covered with 2 layers of 12,5 mm gypsum
- Lightweight:
- 120 mm gypsum walls - 70 mm steel frame/mineral wool, 2 x 12,5 gypsum boards from both sides

ROOF 1 - ZINC ROOF

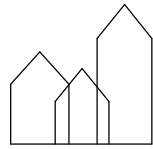
EI 60

U-value = 0,11 W/m²K

55 dB

- 100 mm wide stee plate, pre-welded to IPE beam
- 350 mm JJI-joist B+
- 63 x 45 mm top and bottom softwood flanges
- 9 mm OSB/3 web
- 6680 mm max. span
- cc 600
- double joist at gable connection
- 100 x 27 x 203 mm timber web fillers from both sides of the web
- 350 x 27 x 52 mm timber plate screwed to OSB/3 web for 110 mm joist extension for plywood support
- 50 x 110 x 63 mm timber batten screwed on top to joist extension plate for plywood support
- 300 mm mineral wool insulation (λ = 0,037 W/mK), therefore 50 mm ventilation gap
- 18 x 1220 x 2440 mm plywood roof underlay
- 25 mm omega profile for ventilation gap
- 18 x 330 mm plywood fascia board underlay
- 0,2 mm EPDM roof membrane
- 9 mm structured underlay (e.g. VAPOZINC)
- 0,7 x 600 x 4000 mm double standing seam zinc plates
- Perforated strip
- Base trim
- Zinc fascia profile
- 0,2 mm PE-foil as damp proof membrane
- 25 x 100 x 2400 mm ceiling battens, cc 400 (125 mm wide first batten)
- 2 x 12,5 x 900 x 2400 mm gypsum ceiling boards
- Eaves flashing
- Galvanized steel support profile
- Galvanized steel gutter bracket
- 120 mm zinc rainwater gutter

K01_TXX_H3_EX_N02



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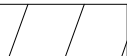
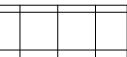
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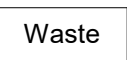
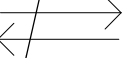
PROJECT: Mejlgade 37, Århus	DATE: 24.12.2020	
SUBJECT: Cross section DD	SCALE: 1 : 50	K01_TXX_H3_EX_N02
ELABORATED BY: Carina Pronascaia	CLASS: AH71P-20S	

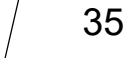
General information

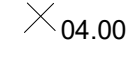
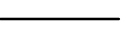
Address: Mejlgade 37, 8000 Århus
Zone: urban
Plot area: 224 m²
Total built-up area: 700 m²
Total habitable area: 311,87 m²
Plot ratio: 624%
Surrounding accomodations on the site include:
- tiled pavement with access to common backyard
- separated waste containers
- bike shed

Legend

-  tiled pavement
-  bike shed for 7 bicycles
-  roof terrace with tiles
- Waste

 separated waste containers
-  car passage
- 35

 number of neighbouring building
- 04.00

 existing and perserved terrain level
-  plot boundaries
-  waste water
-  rain water/dry pipe
- 

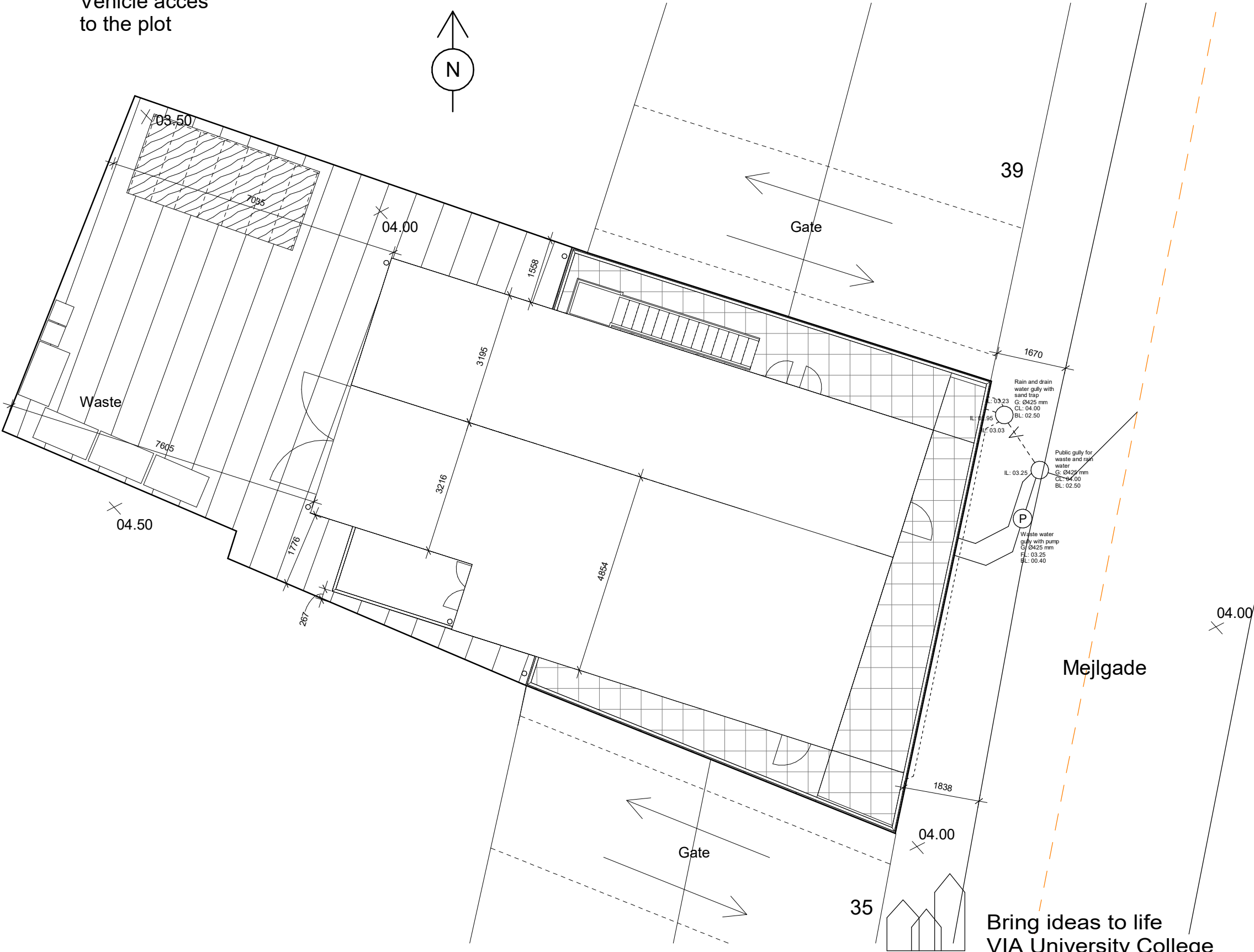
 Ø425 mm separated rain water gully
- 

 Ø425 mm waste water gully with pump
- 

 Ø425 mm public waste water gully
-  public common (rain and waste water) connection
- 

 compass orientation

Backyard
Vehicle acces
to the plot

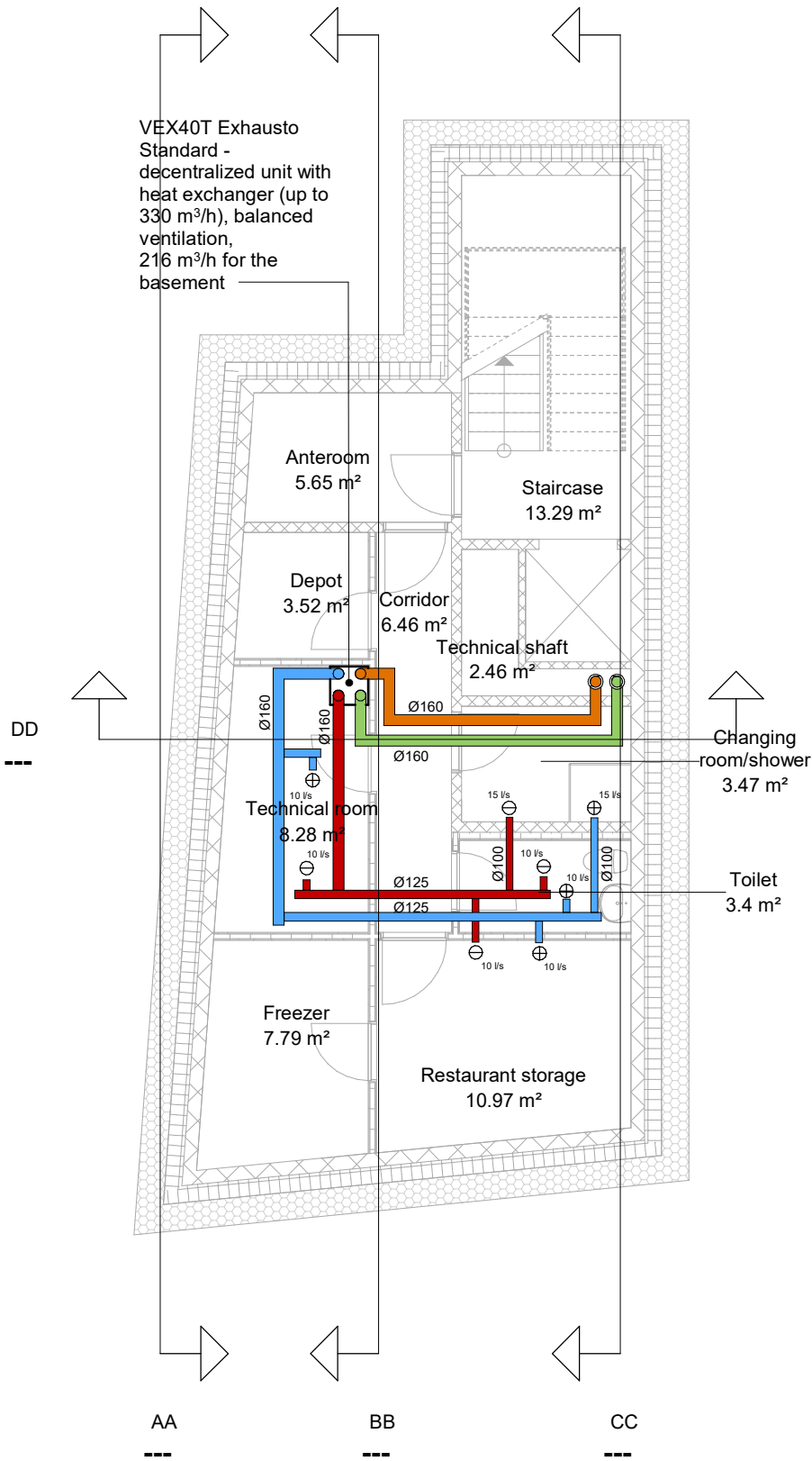


Site
1 : 100

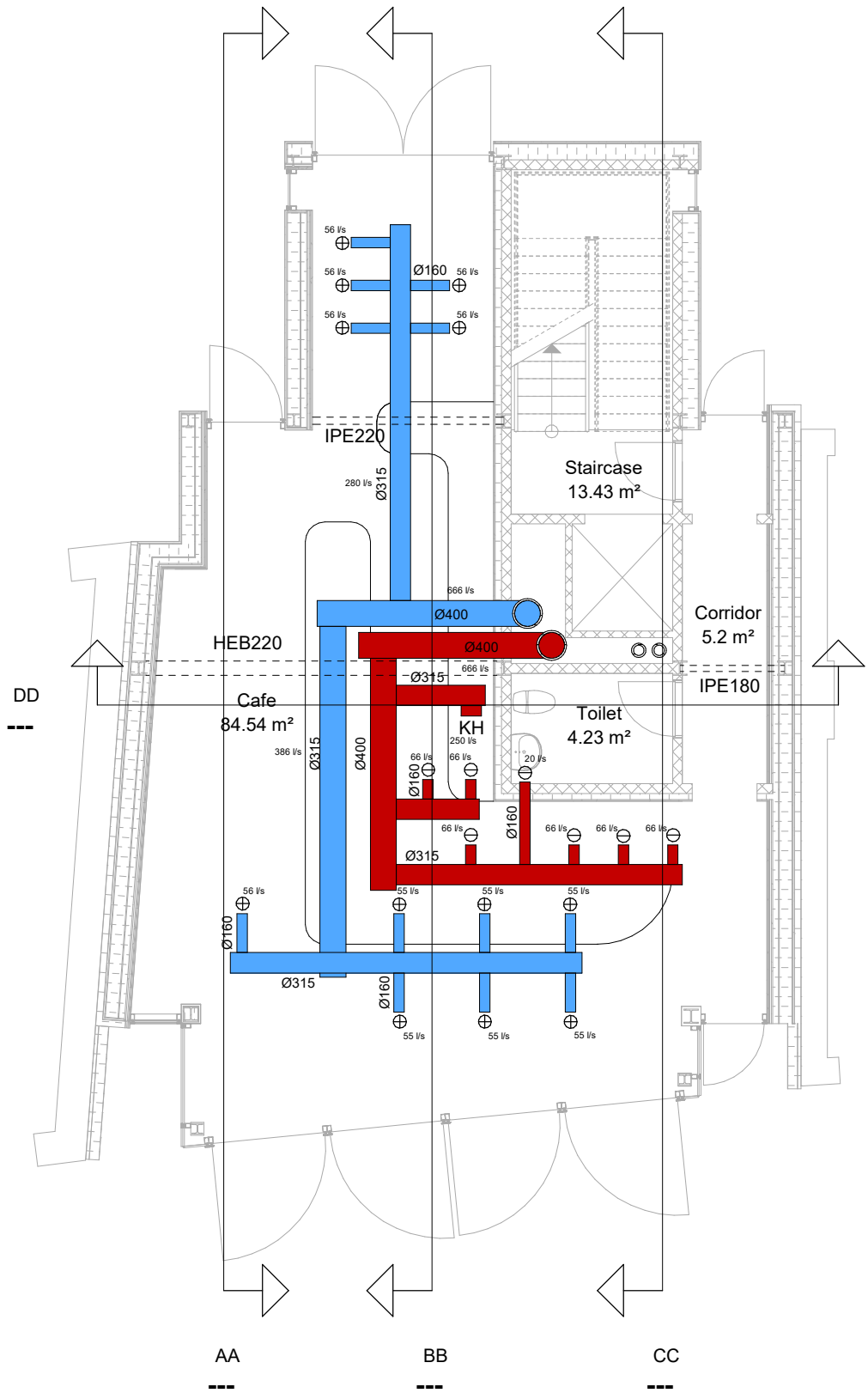
PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H1_EX_N01
SUBJECT: Site plan	SCALE: 1 : 100	
ELABORATED BY: Carina Pronascaia	CLASS: AH71P-20S	

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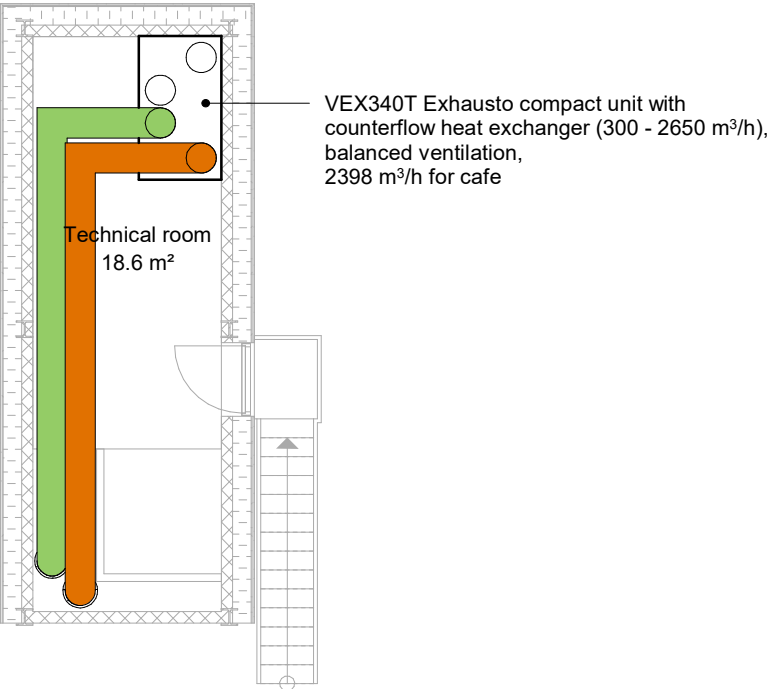
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01 Basement, ventilation plan
1 : 100

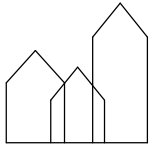


03 Groundfloor floor, ventilation plan
1 : 100



07 Fourth floor, ventilation plan
1 : 100

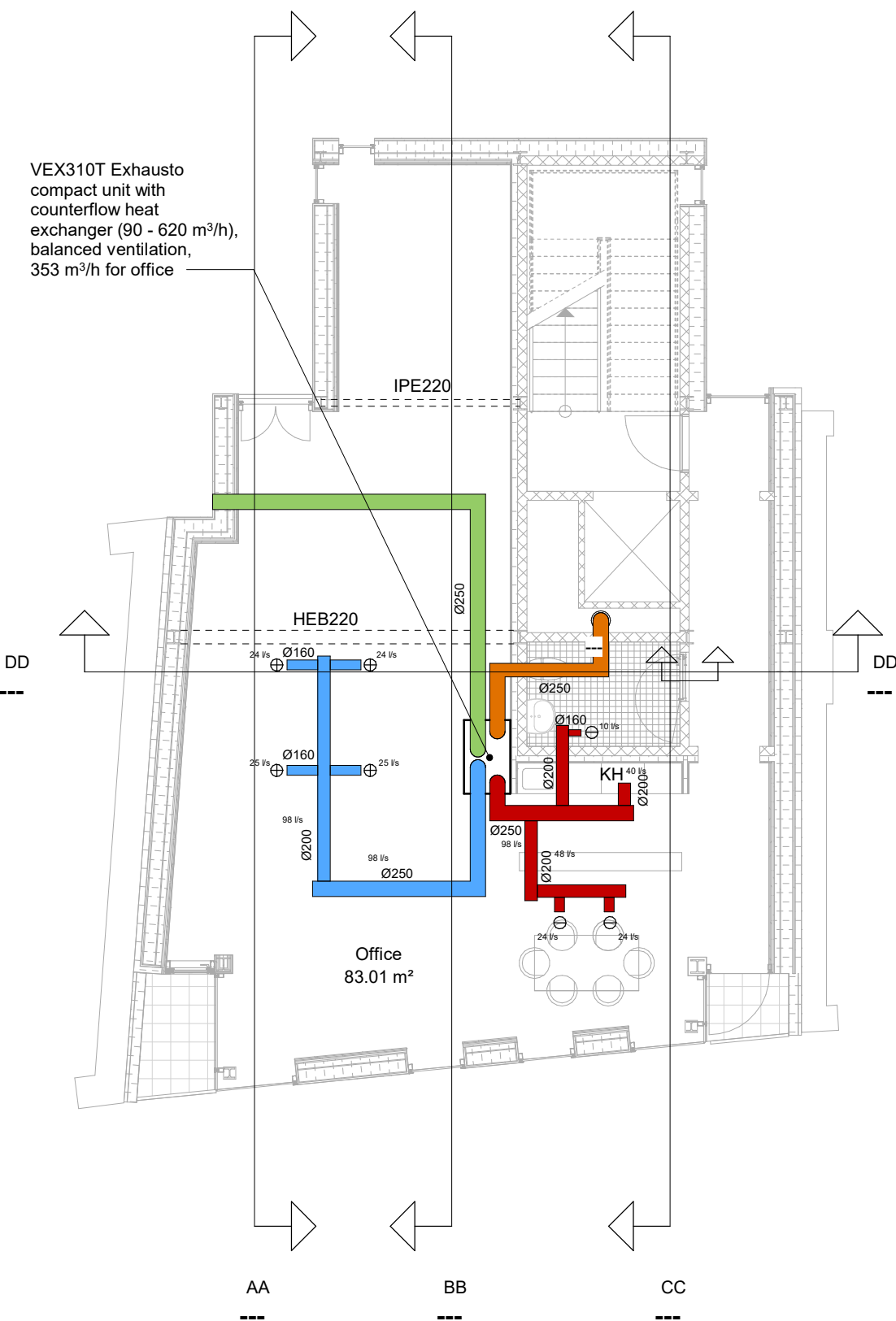
- LEGEND
- outdoor air supply
 - fresh air duct
 - extract air (above the roof)
 - return air duct
 - ventilation unit
 - fresh air valve
 - return air valve
 - beam above the floor plan



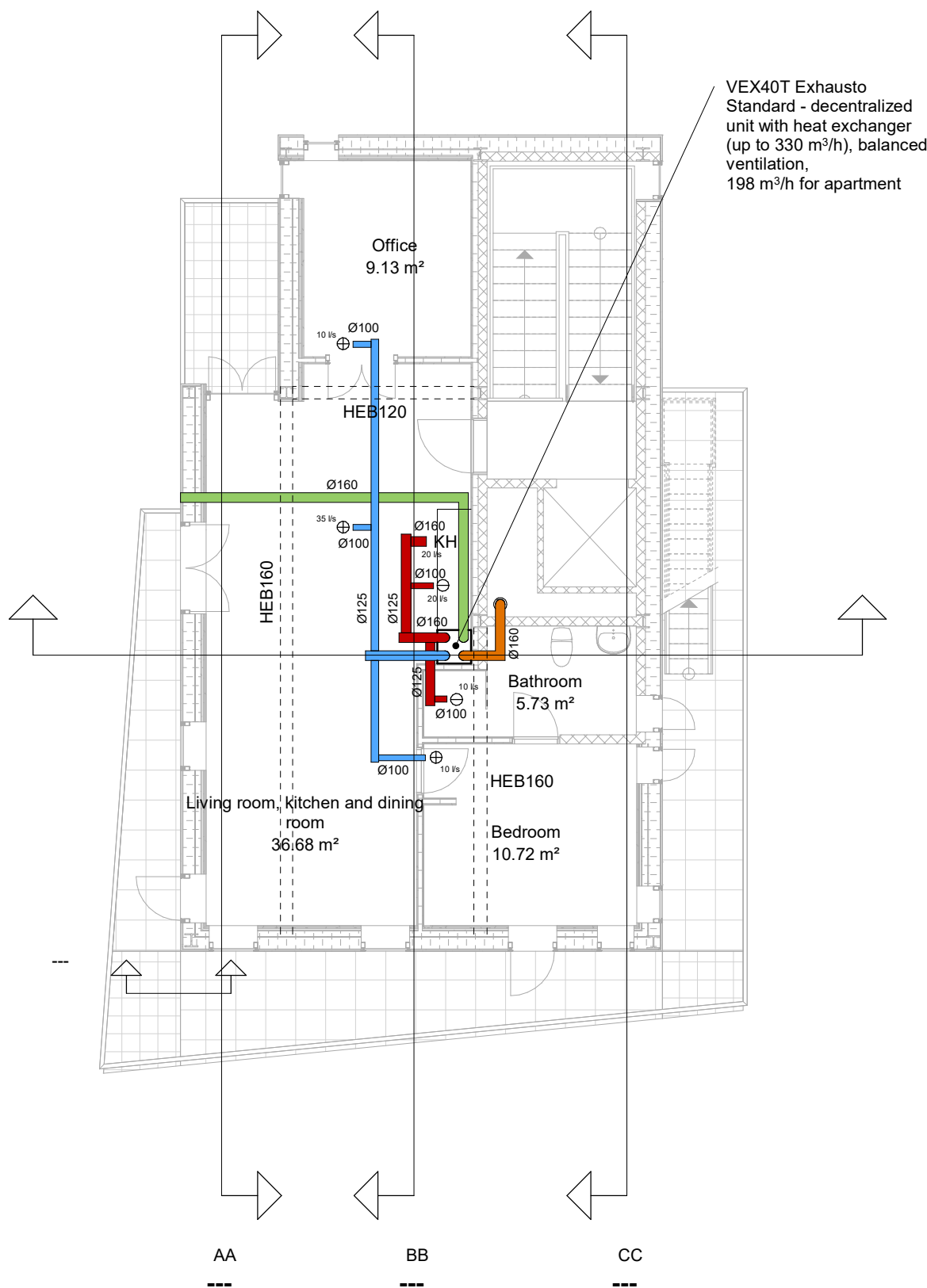
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PROJECT: Mejlgade 37, Århus	DATE: 25.11.2020	K01_TXX_H1_EX_N14
SUBJECT: Ventilation plan - basement and groundfloor	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



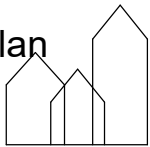
04 First floor, ventilation plan
1 : 100



06 Third floor, ventilation plan
1 : 100

LEGEND

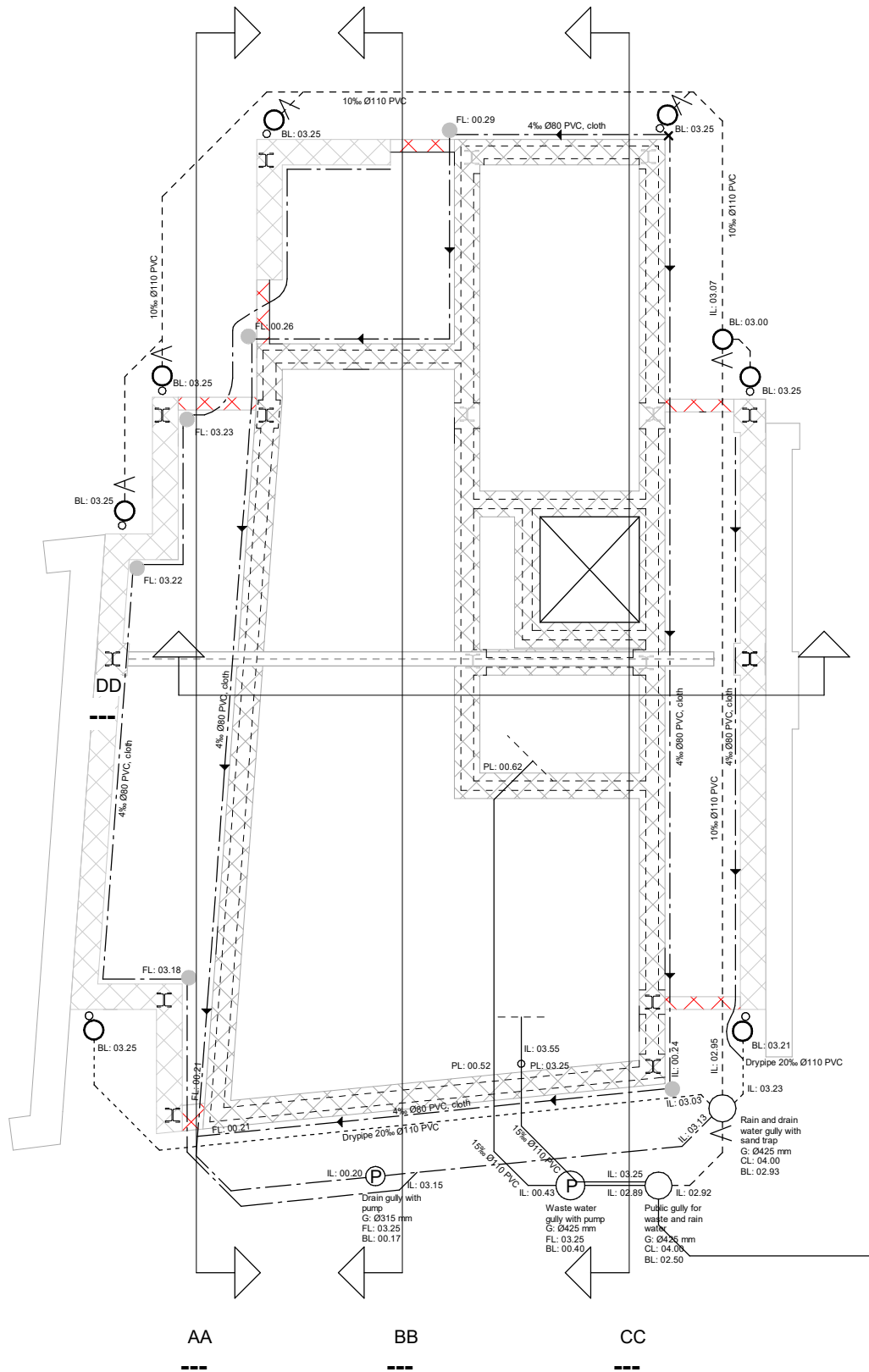
- outdoor air supply
- fresh air duct
- extract air (above the roof)
- return air duct
- ventilation unit
- 55 l/s ⊕ fresh air valve
- 10 l/s ⊖ return air valve
- beam above the floor plan



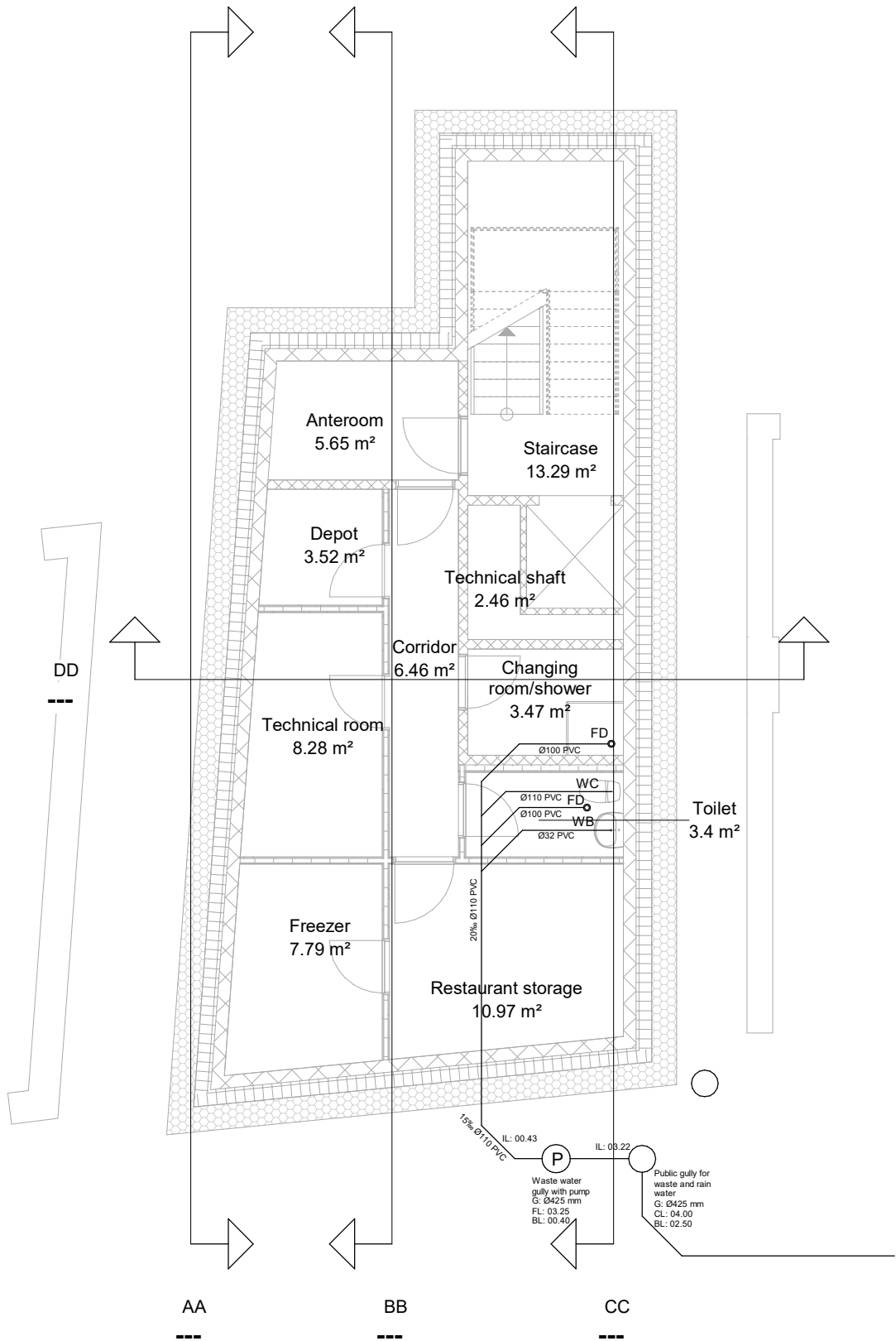
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PROJECT: Mejlgade 37, Århus	DATE: 25.11.2020	K01_TXX_H1_EX_N15
SUBJECT: Ventilation plan - first, third and fourth floor	SCALE: As indicated	
ELABORATED BY: Carina Pronskaia	CLASS: AH71P-20S	



00 Foundation, sewer and drainage plan
1 : 100



01 Basement, sewer and drainage plan
1 : 100

LEGEND

- waste water pipe
- - - rain water pipe
- ... drain
- . - . dry pipe
- Ø425 mm waste water gully
- (P) Ø425 mm waste water gully with pump
- Ø315 mm rain/drain water gully
- (P) Ø315 mm rain/drain water gully with pump
- ⊙ Ø110 mm waste water downpipe
- Ø120 mm rain water downpipe
- > sand catch
- flow direction

- KSI - kitchen sink
- DW - dishwasher
- WB - wash basin
- FD - floor drain
- WC - water closet
- WM - washing machine
- TD - tumble dryer
- DP - downpipe
- RWD - rain water downpipe

Required space - space required in suspended ceiling
(including connectors)

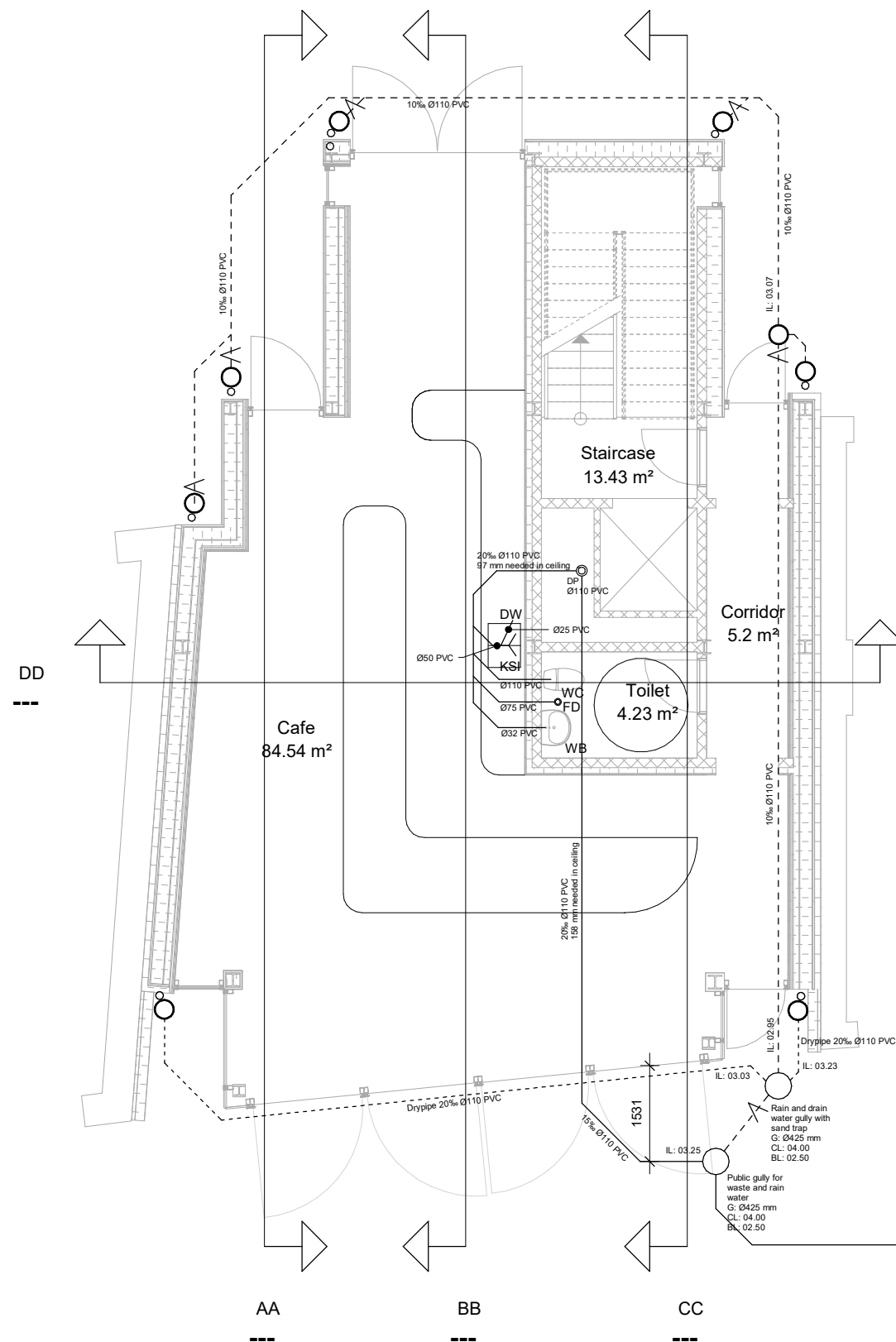
- G - gully size
- CL - cover level
- FL - flow level
- BL - bottom level
- IL - inlet level
- PL - foundation penetration level



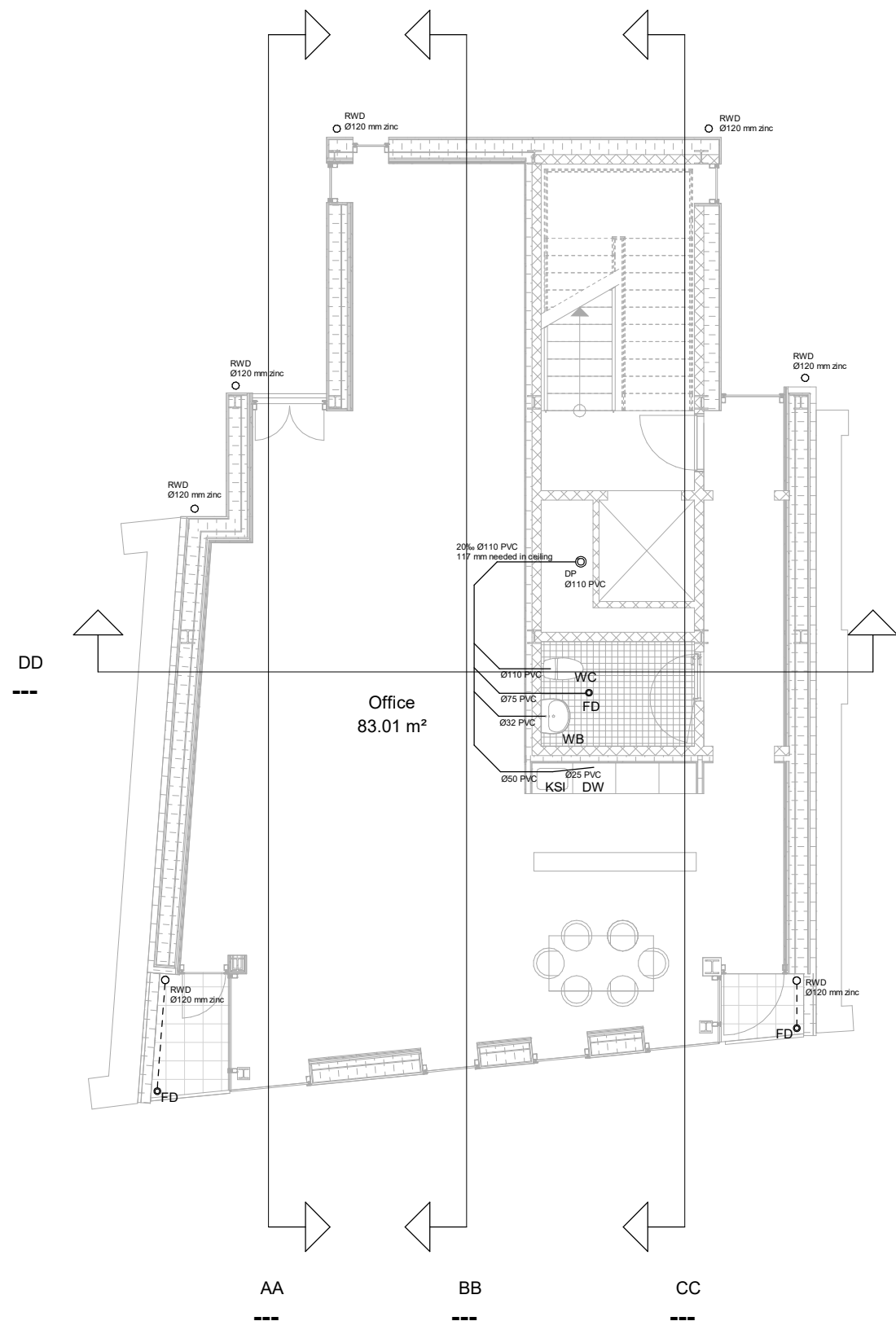
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PROJECT: Mejlgade 37, Århus	DATE: 5.12.2020	K01_TXX_H1_EX_N18
SUBJECT: Sewer and drainage plan - foundation and basement	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



03 Groundfloor floor, sewer and drainage plan
1 : 100



04 First floor, sewer and drainage plan
1 : 100

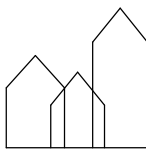
LEGEND

- waste water pipe
- - - rain water pipe
- - - drain
- - - dry pipe
- Ø425 mm waste water gully
- (P) Ø425 mm waste water gully with pump
- Ø315 mm rain/drain water gully
- (P) Ø315 mm rain/drain water gully with pump
- ⊙ Ø110 mm waste water downpipe
- Ø120 mm rain water downpipe
- > sand catch
- ▶ flow direction

KSI - kitchen sink
DW - dishwasher
WB - wash basin
FD - floor drain
WC - water closet
WM - washing machine
TD - tumble dryer
DP - downpipe
RWD - rain water downpipe

Required space - space required in suspended ceiling
(including connectors)

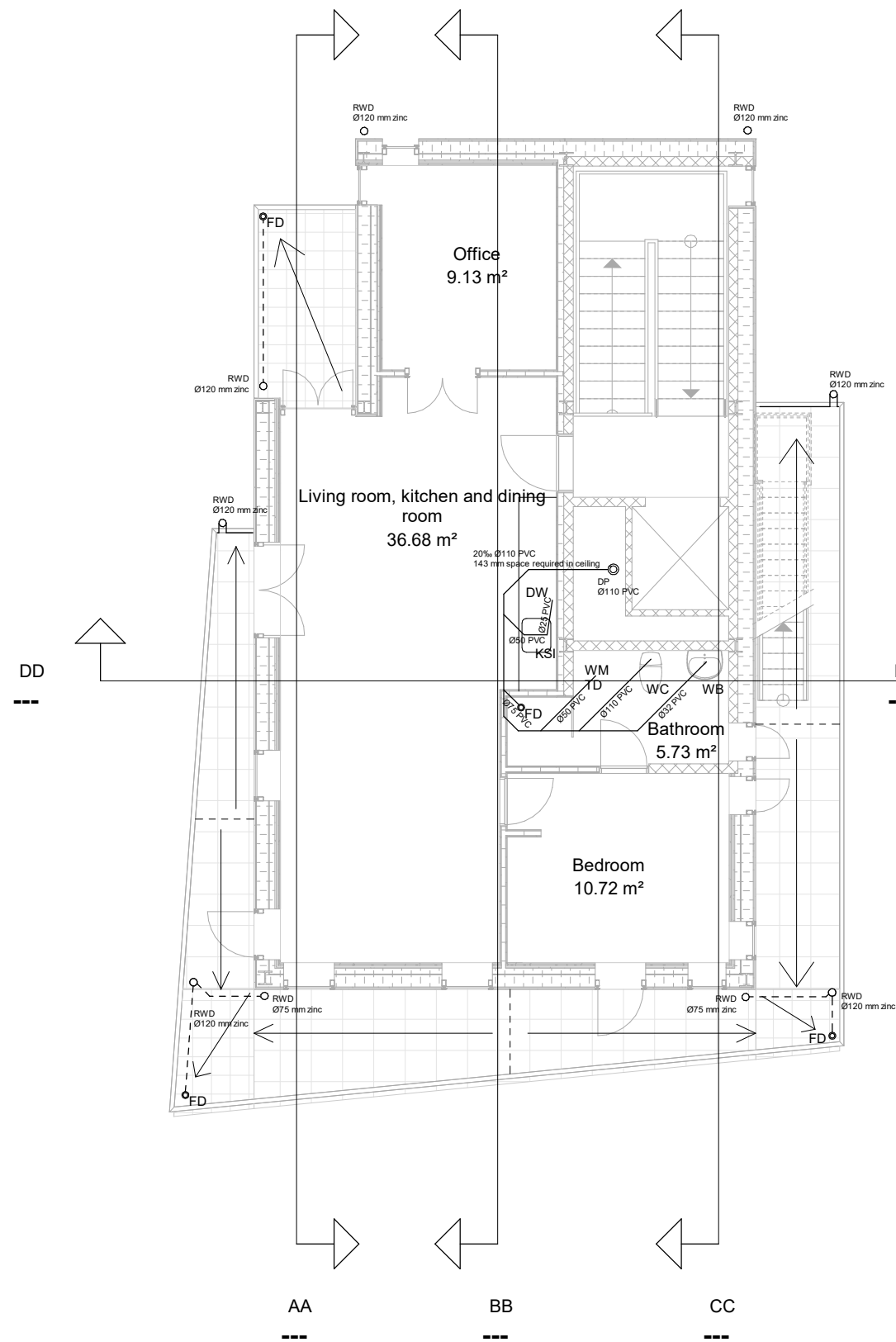
G - gully size
CL - cover level
FL - flow level
BL - bottom level
IL - inlet level
PL - foundation penetration level



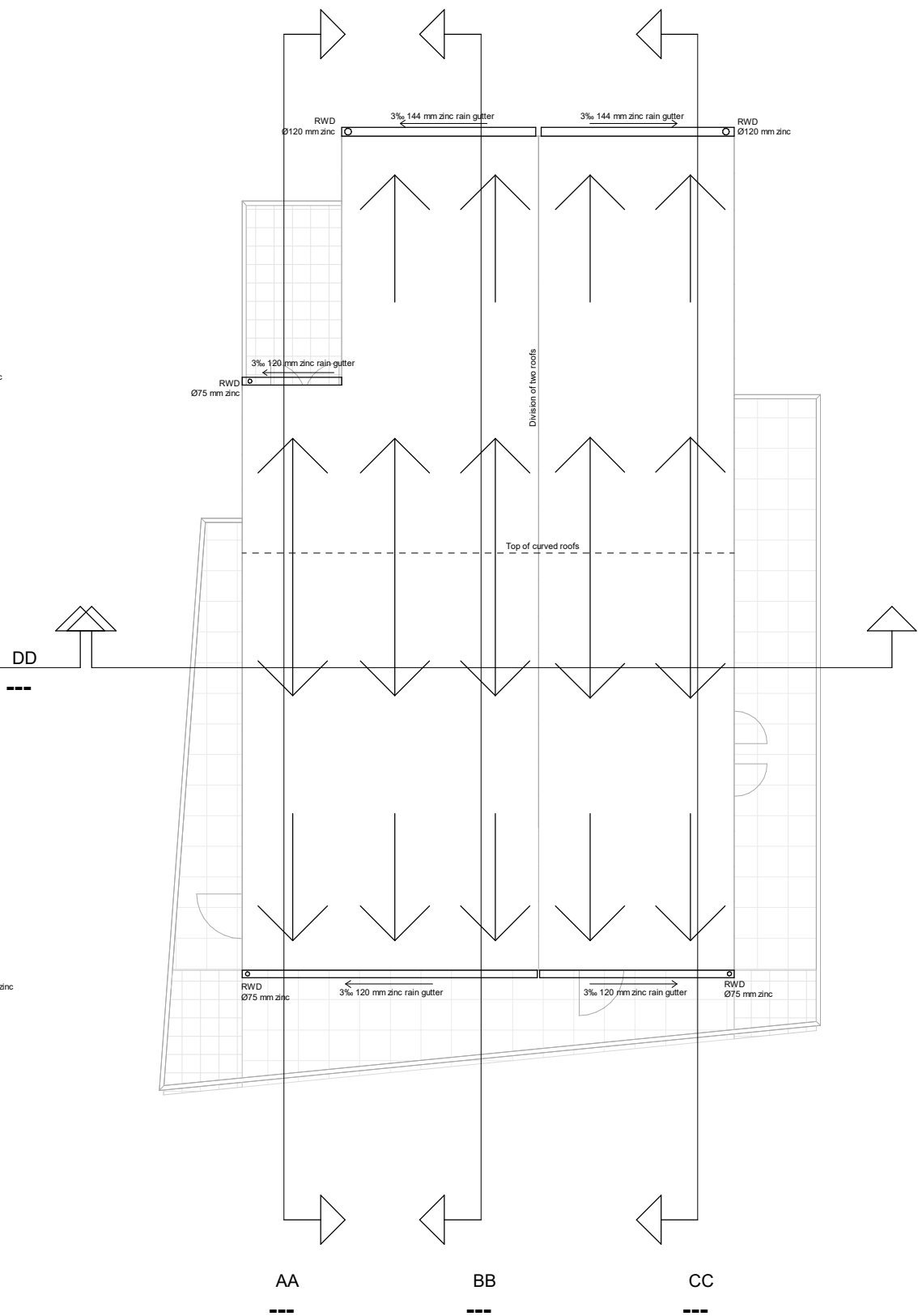
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PROJECT: Mejlgade 37, Århus	DATE: 5.12.2020	K01_TXX_H1_EX_N19
SUBJECT: Sewer and drainage plan - groundfloor and first floor	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



06 Third floor, sewer and drainage plan
1 : 100



08 Roof, sewer and drainage plan
1 : 100

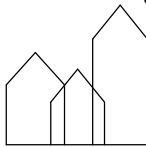
LEGEND

- waste water pipe
- - - rain water pipe
- . - . - drain
- - - - - dry pipe
- Ø425 mm waste water gully
- (P) Ø425 mm waste water gully with pump
- Ø315 mm rain/drain water gully
- (P) Ø315 mm rain/drain water gully with pump
- ⊙ Ø110 mm waste water downpipe
- Ø120 mm rain water downpipe
- > sand catch
- flow direction
- └ L terrace rain water drainage through the plinth

- KSI - kitchen sink
- DW - dishwasher
- WB - wash basin
- FD - floor drain
- WC - water closet
- WM - washing machine
- TD - tumble dryer
- DP - downpipe
- RWD - rain water downpipe

Required space - space required in suspended ceiling
(including connectors)

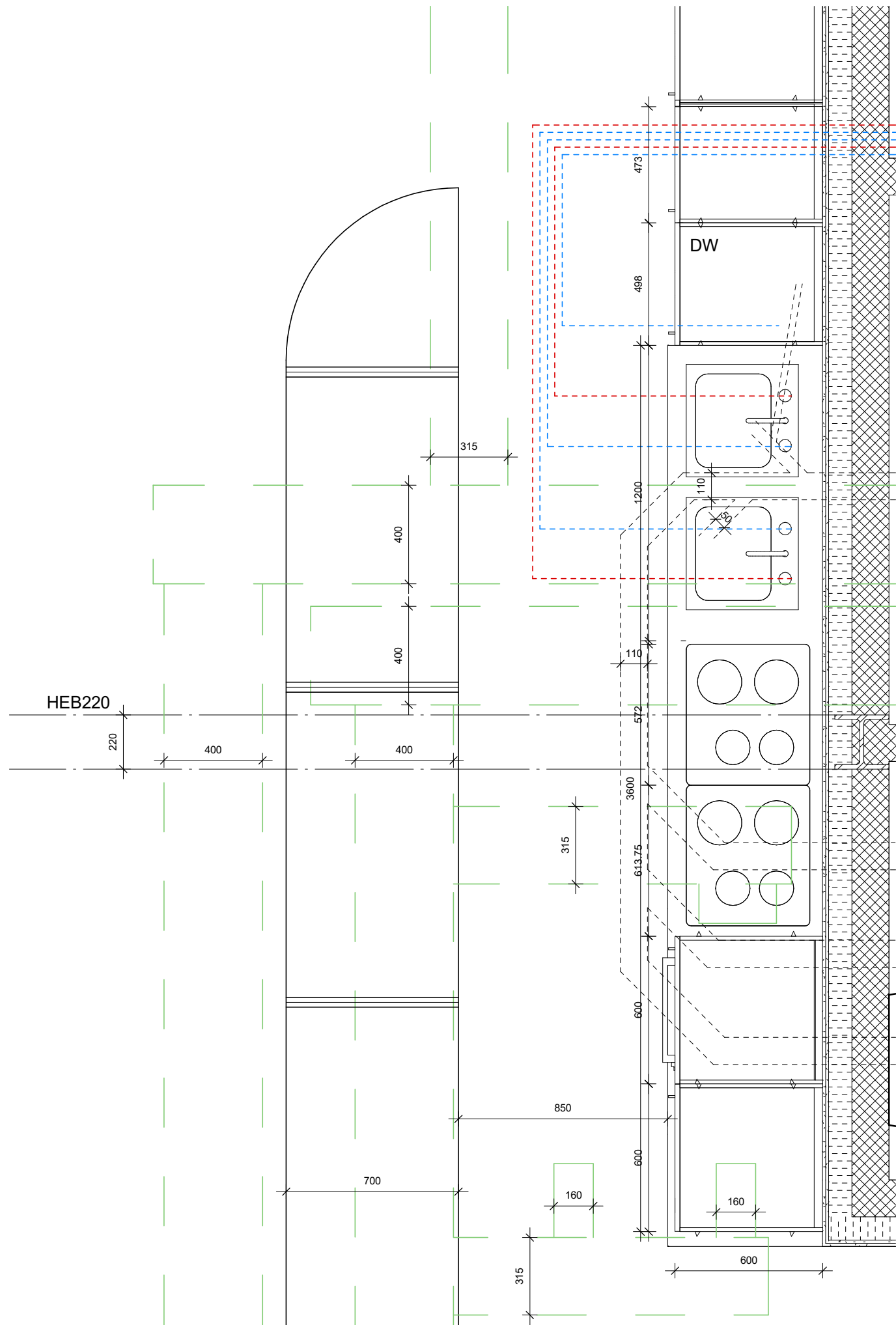
- G - gully size
- CL - cover level
- FL - flow level
- BL - bottom level
- IL - inlet level
- PL - foundation penetration level



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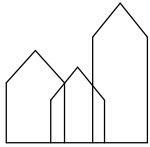
PROJECT: Mejlgade 37, Århus	DATE: 5.12.2020	K01_TXX_H1_EX_N20
SUBJECT: Sewer and drainage plan - third floor and roof	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



Room drawing - kitchen, groundfloor plan
1 : 20

LEGEND

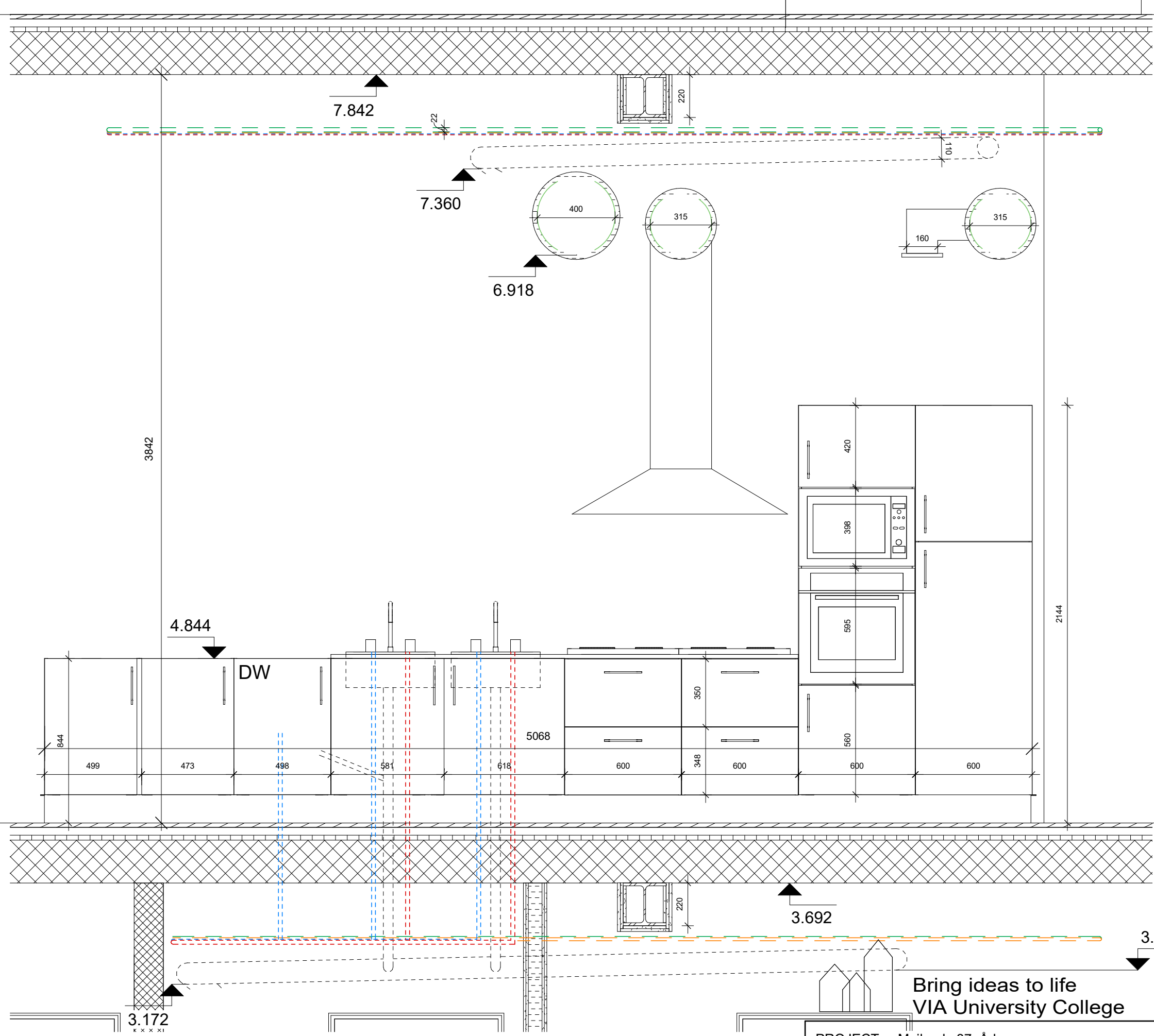
- domestic cold water pipe
Ø20 mm distribution pipe
- domestic hot water pipe
Ø20 mm distribution pipe
- waste water pipe
- ventilation ducts
- DW dishwasher



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PROJECT: Mejlgade 37, Århus	DATE: 9.12.2020	K01_TXX_H0_E1_N02
SUBJECT: Kitchen drawing, plan	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



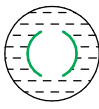
- LEGEND
- domestic cold water pipe
Ø20 mm distribution pipe
 - domestic hot water pipe
Ø20 mm distribution pipe
 - waste water pipe
 - ventilation ducts
 - DW dishwasher

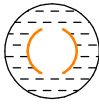
III 03 Groundfloor floor
4000

PROJECT: Mejlgade 37, Århus	DATE: 9.12.2020	K01_TXX_H0_E1_N01
SUBJECT: Kitchen drawing, elevation	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	

Room drawing - kitchen, groundfloor elevation
1 : 20

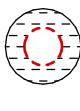
Legend

 heating return pipe
Ø125 mm main pipe,
Ø22 mm distribution pipe

 heating forward pipe
Ø125 mm main pipe
Ø22 mm distribution pipe

 circulation pipe
Ø50 mm

 domestic cold water pipe
Ø50 mm main pipe
Ø20 mm distribution pipe

 domestic hot water pipe
Ø50 mm main pipe
Ø20 mm distribution pipe

 manifold with meter

All pipes are made of PEX pipe-in-pipe system.

Pipes for heating must be supplied with an oxygen membrane on the surface or inside the pipe material.

Shaft walls (REI 120)
100/150 mm prefabricated concrete wall post-insulated and covered with 2 x 12,5 mm gypsum boards towards cafe, offices and apartment for sound isolation.

IPE360 steel column (groundfloor) (REI120)
Gyproc fire encasement with 2 x 15 mm Glasroc F firecase

Walls connected to columns with steel stirrups pre-welded to columns and casted in walls; concrete casted on top.

Wall facing bathroom is prefabricated with an opening (400 mm left from both sides, 1 m from the top) for duct installation. Opening closed with Gyproc ShaftWall (EI 120).

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PROJECT: Mejlgade 37, Århus

DATE: 9.12.2020

SUBJECT: Installation shaft

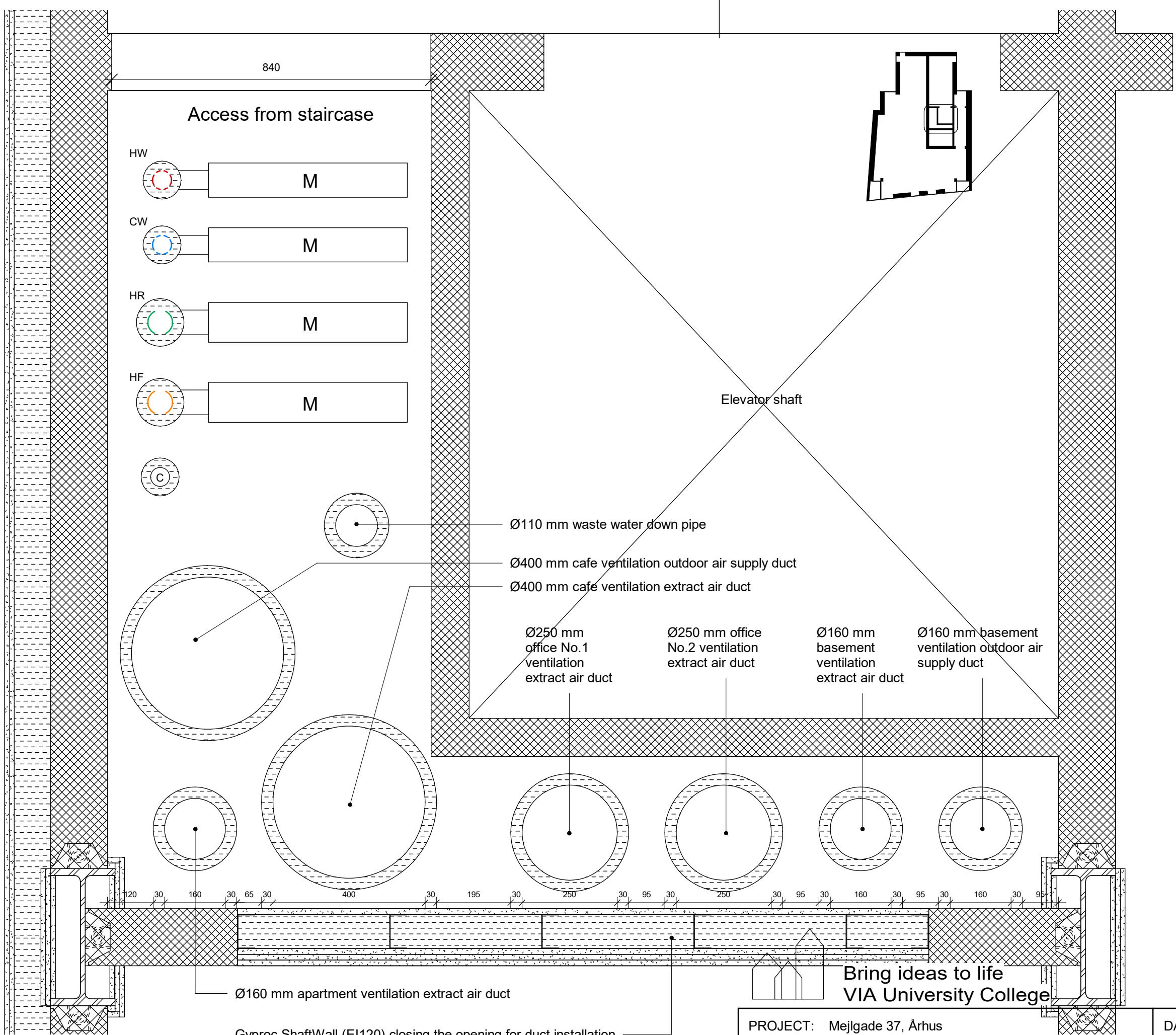
SCALE: As indicated

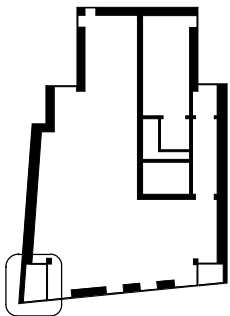
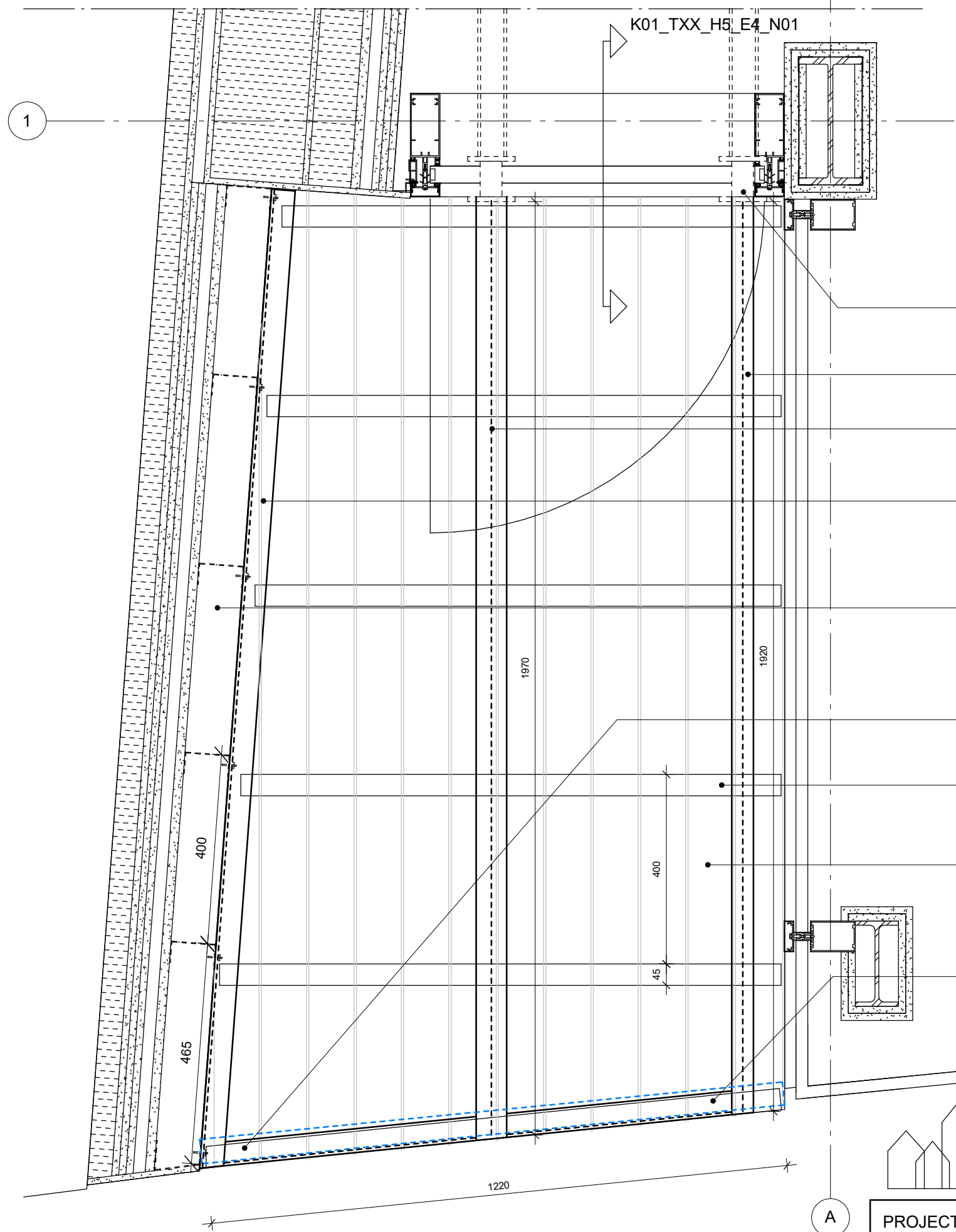
ELABORATED BY: Carina Pronsaia

CLASS: AH71P-20S

K01_TXX_H1_E3_N02

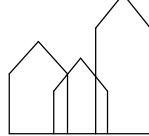
Installation shaft
1 : 10





- Halfen SBC steel balcony connector, insulated with HALFEN thermal separator, reinforcement casted inside HODY deck
- IPE 100 galvanized steel beams
- IPE 120 galvanized steel beam
- UNP S275 JR U-beam (channel), 50 x 100 mm, fixed to each steel stud in side wall
- Gyproc ThermoNomic load-bearing steel stud frame, covered with gypsum facing the balcony
Gyproc ShaftWall system EI120: 3 x 15 mm Flre Line gypsum boards, 60 mm I-stud frame and 19 mm Core gypsum board
- UNP S275 JR U-beam (channel), 50 x 100 mm, fixed to IPE and UNP beams for stabilization
- UNP S275 JR U-beams (channel), 45 x 80 mm, cc 400, fixed on top of IPE beams
- 25 x 100 x 2700 mm pressure-treated timber decking with 5 mm gaps inbetween
- Stainless steel railing with glass panels

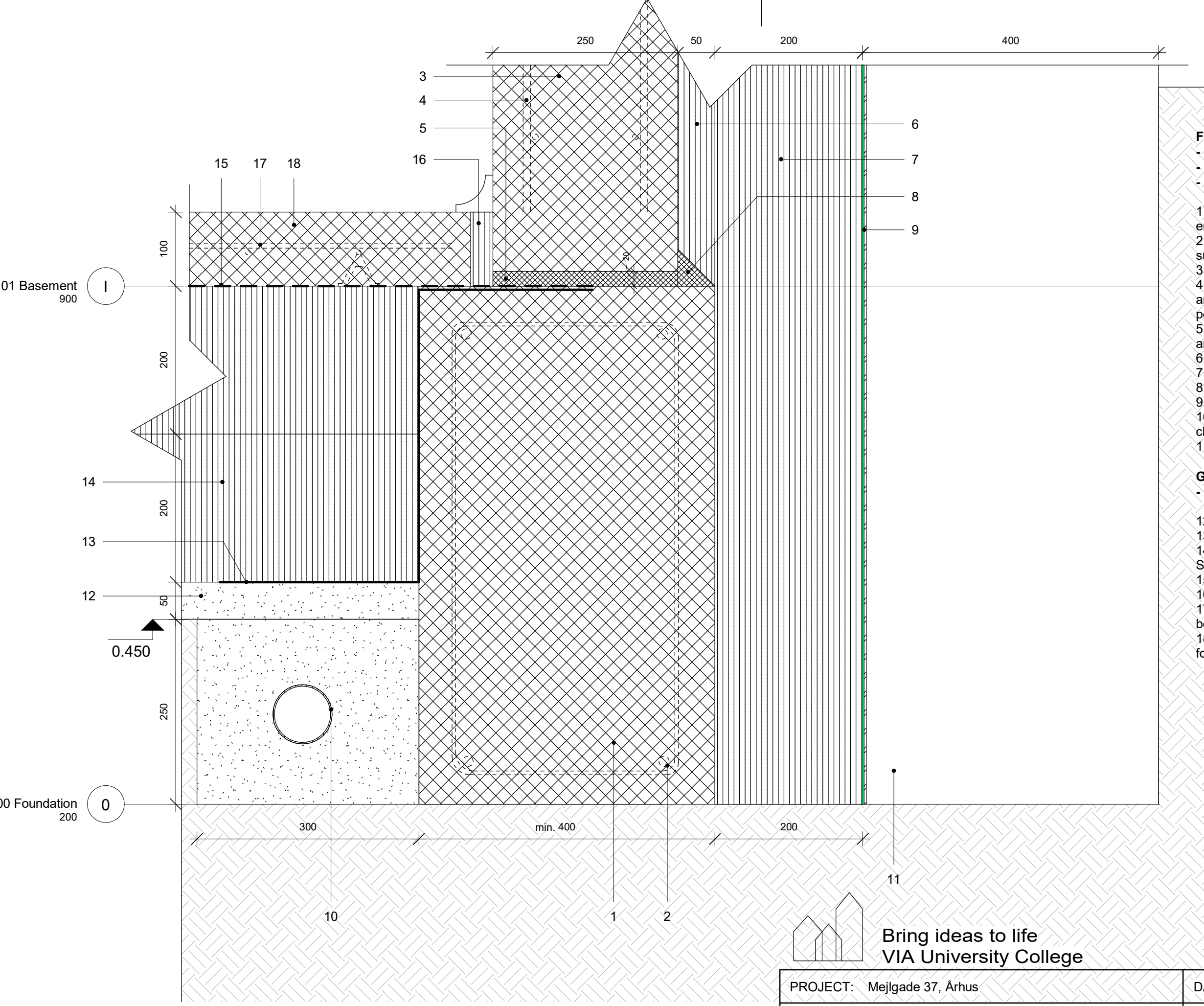
Balcony plan
1 : 10



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PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H1_E4_N02
SUBJECT: Balcony plan	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



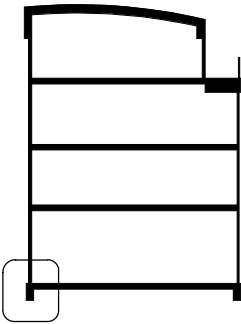
FOUNDATION AND BASEMENT WALL

- Wall REI 120
- Wall U-value = 0,13 W/m²K
- Foundation linear loss = 0,12 W/mK

1. Cast-in-situ strip foundation, according to engineering calculation, but min. width 400 mm
2. 4 Ø14 mm Y-steel reinforcement bars and Ø8 mm support stirrups placed each 1000 mm
3. 250 mm cast-in-situ basement concrete wall
4. 10 Ø8 mm Y-steel horizontal reinforcement bars and 8 Ø12 mm Y-steel vertical reinforcement bars per lbm of wall
5. 20 mm mortar to fill the gap between foundation and wall
6. 50 mm polystyrene insulation
7. 200 mm thermo drain polystyrene insulation
8. Corner flashing
9. Textile cloth
10. Ø80 mm PVC drainage pipe covered with fiber cloth, length 50 m
11. 400 mm sheet pile wall against soil pressure

GROUND SUPPORTED FLOOR

- U-value = 0,09 W/m²K
12. Sand as capillary breaking barrier
 13. Bitumen felt against radon penetration
 14. 2 x 200 mm XPS polystyrene insulation (e.g. Sundolitt)
 15. 0,2 mm PE foil as damp proof membrane
 16. 30 mm edge insulation
 17. 6 mm reinforcement mesh (Ø6 mm with 150 mm between bars)
 18. 100 mm cast-in-situ concrete slab, powerwashed for smooth, non-slip surface

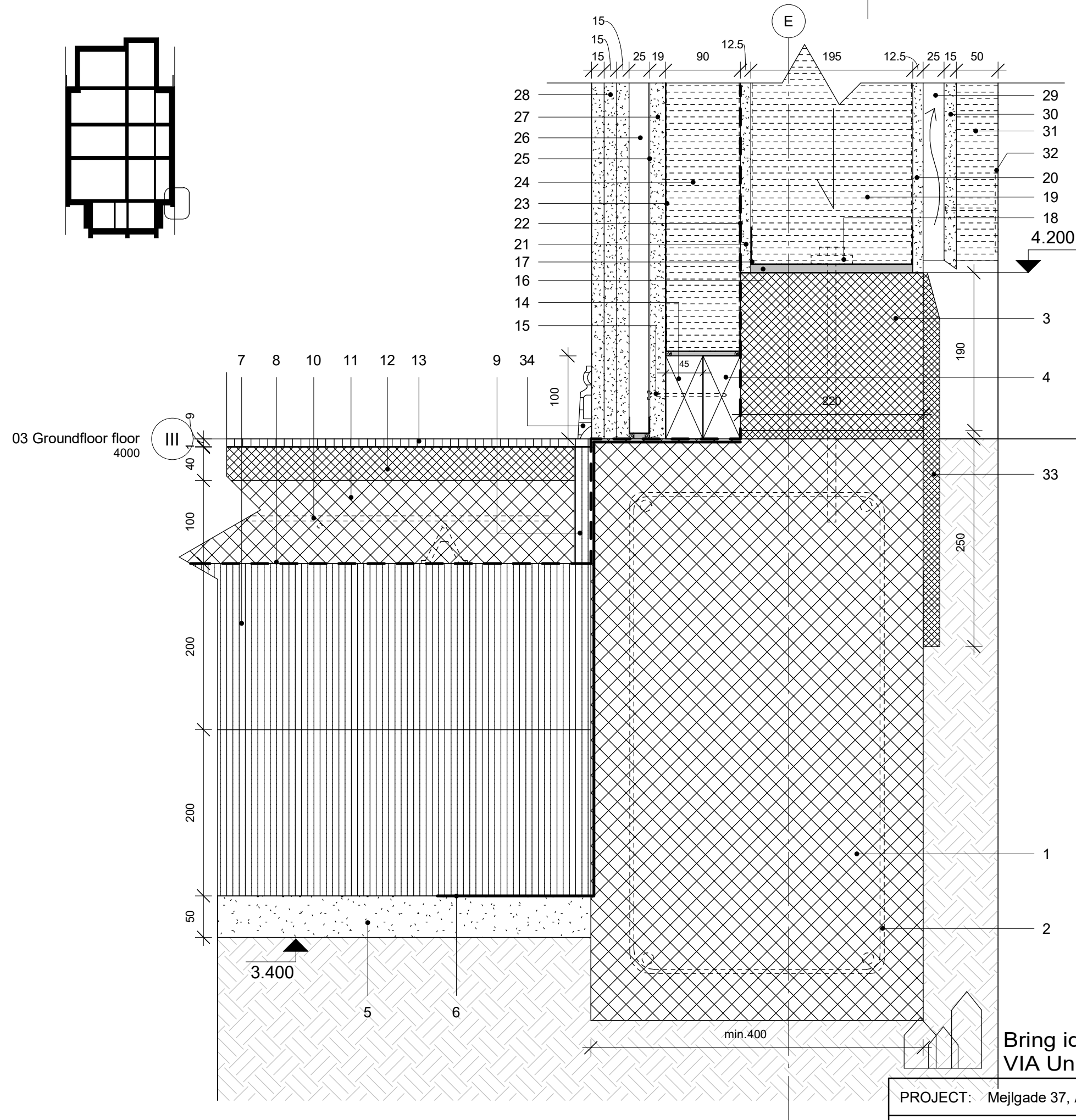


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Foundation and basement wall
1 : 5

PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H5_E1_N01
SUBJECT: Foundation and basement wall	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



FOUNDATION

- Linear loss = 0,12 W/mK

1. Cast-in-situ strip foundation, according to engineering calculation, but min. width 400 mm and 900 mm min. depth
2. 4 Ø14 mm Y-steel reinforcement bars and Ø8 mm support stirrups placed each 1000 mm
3. 220 x 190 x 490 mm LECA-block on 10 mm screed
4. 45 x 100 mm wooden plank for more stable prefabricated wall fixing
33. 20 mm plinth plaster

GROUND SUPPORTED FLOOR

- U-value = 0,09 W/m²K

5. Sand as capillary breaking barrier
6. Bitumen felt against radon penetration
7. 2 x 200 mm XPS polystyrene insulation (e.g. Sundolitt)
8. 0,2 mm PE foil as damp proof membrane
9. 30 mm edge insulation
10. 6 mm reinforcement mesh (Ø6 mm with 150 mm between bars)
11. 100 mm cast-in-situ concrete slab
12. 40 mm self-levelling screed
13. 9 x 600 x 600 mm ceramic tiles, non-slip surface as cafe floor finish
34. 90 x 12 x 2000 mm moisture-resistant plastic skirting with cavities for wires

PREFABRICATED STEEL STUD AND GYPSUM FACADE FACING NEIGHBORING BUILDING

- REI 120

- U-value = 0,11 W/m²K

- Rw = 55 dB

14. 45 x 100 mm wooden plank for horizontal connection between foundation and prefabricated wall
15. 6,0 x 90 mm timber-to-timber screw
16. 10 mm x 195 mm polyurethane strip
17. 195 mm Thermonomic steel stud system
18. 12 x 350 mm stainless steel anchor rod, cc 600 mm
19. 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
20. 12,5 Gyproc Protect F Ergo windbreaker
21. 12,5 mm Gyproc Normal Ergo
22. 0,2 mm PE-foil as damp proof membrane
23. 90 mm internal steel stud system
24. 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
25. 60 mm Gyproc I-stud framework for FireWall
26. 25 mm Gyframe retaining channel
27. 19 mm Gyproc Core Board between studs
28. 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
29. 25 mm omega profile
30. 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)
31. 50 mm Rockwool breathable insulation to fill the gap between buildings
32. Plastic dowel with 100 mm dowel head, placed in pre-drilled holes at insulation batts connections and each 600 mm
- additional Grip Lock plates can be added for insulation attachment under each batt

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PROJECT: Mejlgade 37, Århus

DATE: 20.12.2020

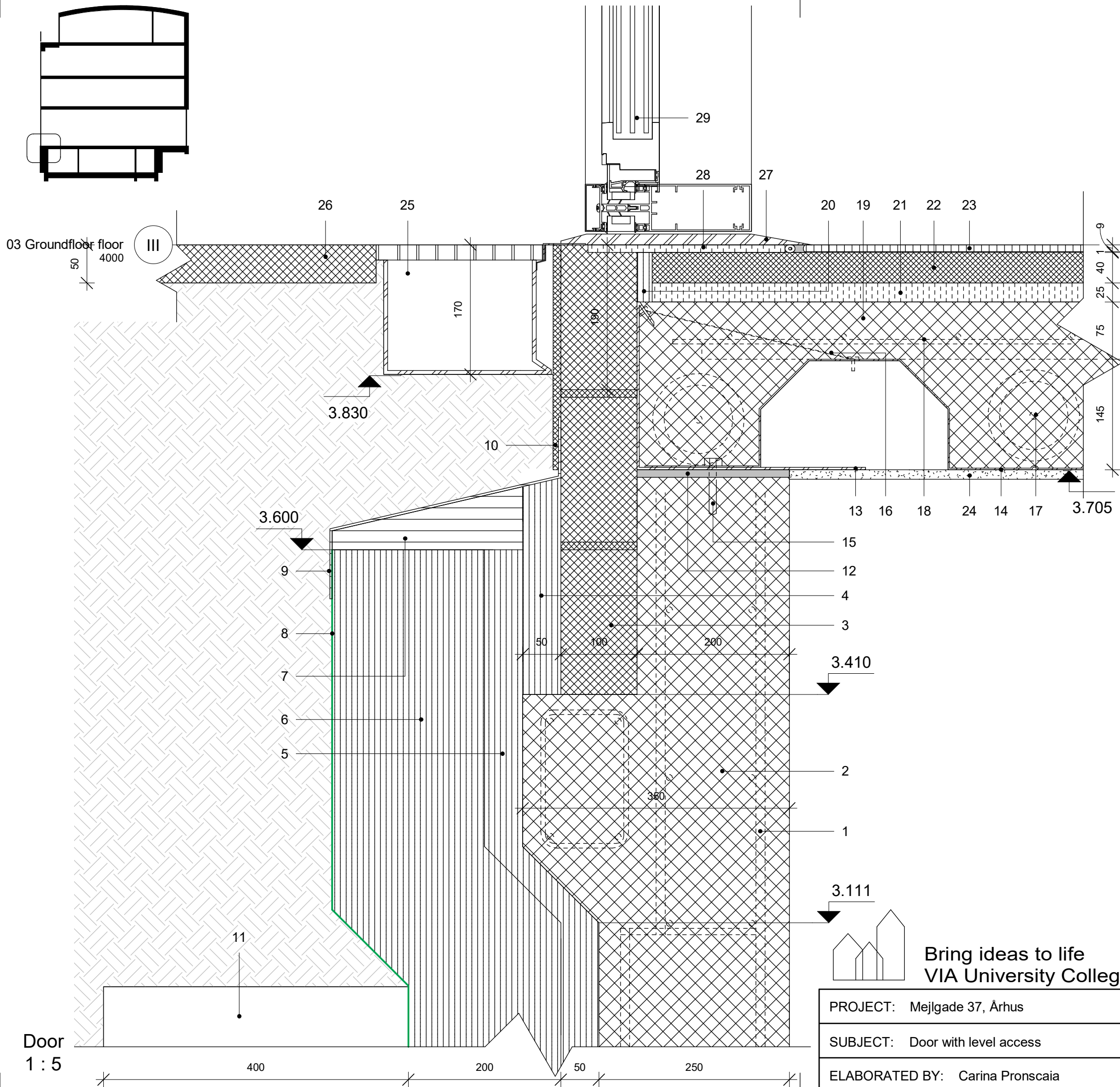
SUBJECT: Foundation and facade near neighboring building

SCALE: As indicated

ELABORATED BY: Carina Pronsaia

CLASS: AH71P-20S

K01_TXX_H5_E3_N01



BASEMENT WALL

- REI 120

- U-value = 0,13 W/m²K

1. 10 Ø8 mm Y-steel horizontal reinforcement bars and 8 Ø12 mm Y-steel vertical reinforcement bars per 1bm of wall, additional reinforcement in wall parapet
2. 250 mm cast-in-situ basement concrete wall (350 mm parapet, 200 mm upper part)
3. 3 layers of 100 x 190 x 490 mm LECA-blocks, placed on 10 mm screed
4. 50 mm polystyrene insulation in upper part of the wall
5. 50 mm polystyrene insulation along the whole wall
6. 200 mm ThermoDrain polystyrene insulation
7. Completion list
8. Textile cloth
9. 0,6 mm aluminum transition list, 4 degree slope
10. 10 mm rendering plaster
11. 400 mm sheet pile wall against soil pressure

HODY FLOOR PARTITION

- EI 120

- Rw = 63 dB / Lw = 50 dB

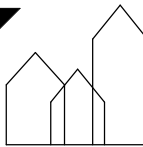
12. 10 x 80 x 1000 mm rubber step sound reducing strip
13. 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
14. HODY steel plate
- height 150 mm
- nominal width 1010 mm
- standard lengths from 2400 mm to 12000 mm
- steel thickness 0,8 - 1 mm
- plates connected with HODY self-drilling screws each 350 mm
15. Anchor rod for fixing HODY plates
16. Strap for additional plate fixture
17. Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
18. Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
19. Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)
20. 20 mm hard edge insulation
21. 25 mm hard mineral wool insulation for step sound reduction
22. 40 mm self-levelling screed
23. 9 x 600 x 600 mm ceramic tiles, non-slip surface as cafe floor finish, glued to primed screed with tile adhesive
24. 12,5 mm gypsum board as basement ceiling

CURTAIN WALL DOOR AND LEVEL ACCESS

- U-value = 0,78 W/m²K

- Linear loss = 0,03 W/mK

25. 170 x 200 x 2 mm prefabricated zinc rain gutter with pre-mounted grating, sloped towards drain pipe
26. 50 mm concrete tiles
27. 15 mm steel threshold for easy wheelchair access
28. 10 mm mineral wool caulking, polyethylene sealant backer rod and weather-proof silicone sealant
29. 2150 x 2350 mm double casement clear glass/aluminum door



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PROJECT: Mejlgade 37, Århus

DATE: 20.12.2020

SUBJECT: Door with level access

SCALE: As
indicated

ELABORATED BY: Carina Pronsaia

CLASS: AH71P-20S

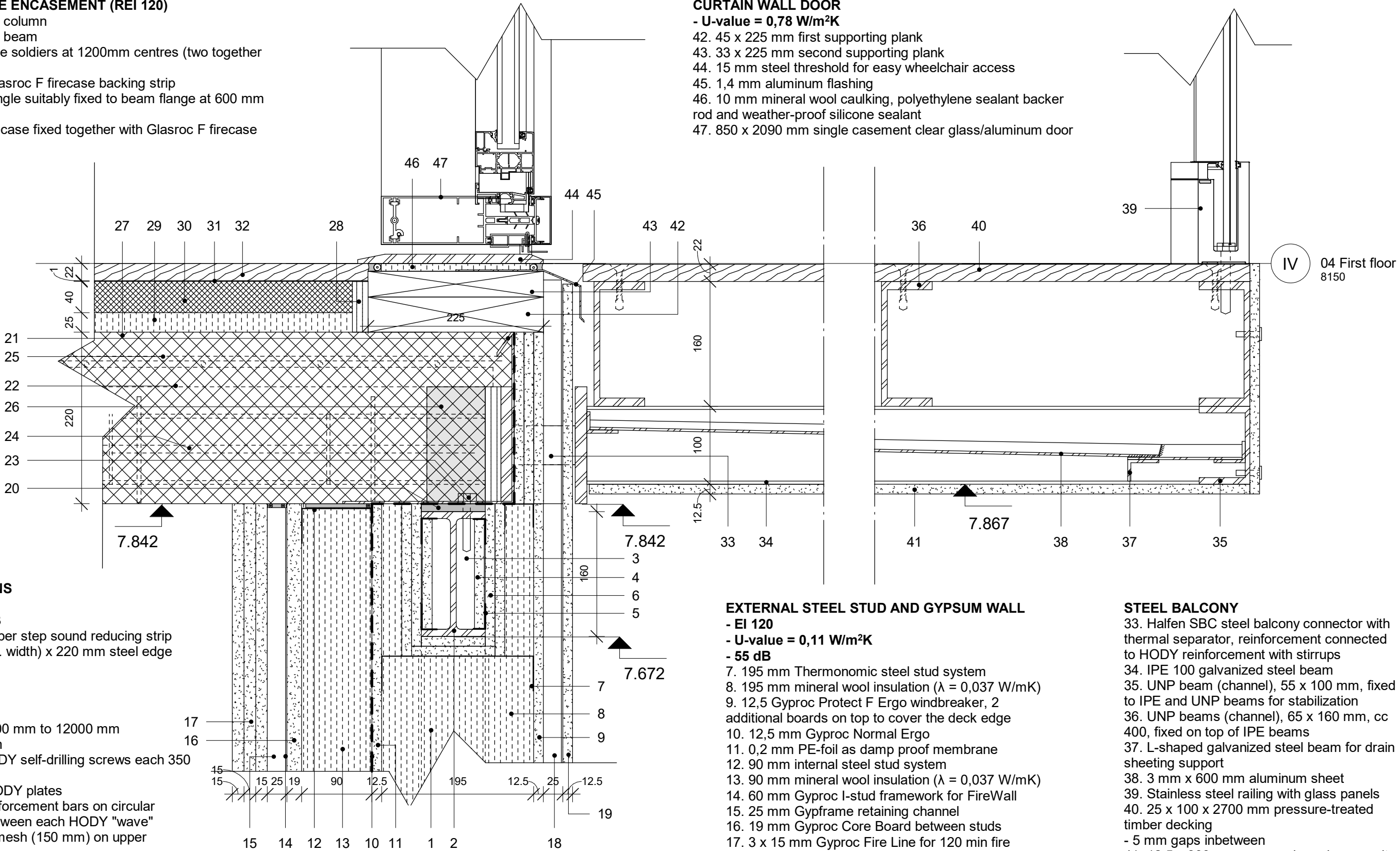
K01_TXX_H5_E3_N02

STEEL SYSTEM AND FIRE ENCASMENT (REI 120)

- 1. IPE 220 galvanized steel column
- 2. IPE 160 galvanized steel beam
- 3. 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
- 4. 15 mm x 60 mm wide Glasroc F firecase backing strip
- 5. Gypframe FEA1 Steel Angle suitably fixed to beam flange at 600 mm centres
- 6. 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

CURTAIN WALL DOOR

- U-value = 0,78 W/m²K
- 42. 45 x 225 mm first supporting plank
- 43. 33 x 225 mm second supporting plank
- 44. 15 mm steel threshold for easy wheelchair access
- 45. 1,4 mm aluminum flashing
- 46. 10 mm mineral wool caulking, polyethylene sealant backer rod and weather-proof silicone sealant
- 47. 850 x 2090 mm single casement clear glass/aluminum door



HODY FLOOR PARTITIONS

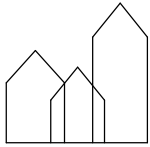
- EI 120
- Rw = 63 dB / Lw = 50 dB
- 20. 10 x 80 x 1000 mm rubber step sound reducing strip
- 21. 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
- 22. HODY steel plate
- height 150 mm
- nominal width 1010 mm
- standard lengths from 2400 mm to 12000 mm
- steel thickness 0,8 - 1 mm
- plates connected with HODY self-drilling screws each 350 mm
- 23. Anchor rod for fixing HODY plates
- 24. Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
- 25. Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
- 26. 70 mm thick foam wave block placed at the end of each non-loadbearing connection
- 27. Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)
- 28. 20 mm hard edge insulation
- 29. 25 mm hard mineral wool insulation for step sound reduction
- 30. 40 mm self-levelling screed
- 31. 1 mm elastic wooden floor adhesive suitable for screed subfloors
- 32. 22 x 207 x 2200 mm wooden floor boards

EXTERNAL STEEL STUD AND GYPSUM WALL

- EI 120
- U-value = 0,11 W/m²K
- 55 dB
- 7. 195 mm Thermonomic steel stud system
- 8. 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 9. 12,5 Gyproc Protect F Ergo windbreaker, 2 additional boards on top to cover the deck edge
- 10. 12,5 mm Gyproc Normal Ergo
- 11. 0,2 mm PE-foil as damp proof membrane
- 12. 90 mm internal steel stud system
- 13. 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 14. 60 mm Gyproc I-stud framework for FireWall
- 15. 25 mm Gypframe retaining channel
- 16. 19 mm Gyproc Core Board between studs
- 17. 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
- 18. 25 mm omega profile
- 19. 12,5 mm gypsum-based facade boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)

STEEL BALCONY

- 33. Halfen SBC steel balcony connector with thermal separator, reinforcement connected to HODY reinforcement with stirrups
- 34. IPE 100 galvanized steel beam
- 35. UNP beam (channel), 55 x 100 mm, fixed to IPE and UNP beams for stabilization
- 36. UNP beams (channel), 65 x 160 mm, cc 400, fixed on top of IPE beams
- 37. L-shaped galvanized steel beam for drain sheeting support
- 38. 3 mm x 600 mm aluminum sheet
- 39. Stainless steel railing with glass panels
- 40. 25 x 100 x 2700 mm pressure-treated timber decking
- 5 mm gaps inbetween
- 41. 12,5 x 300 mm gypsum-based composite boards (e.g. Fermacell Fibergypsum/Powerpanel)



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PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H5_E4_N01
SUBJECT: Balcony	SCALE: 1 : 5	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	

ROOF TERRACE

- EI 120

- $R_w = 55 \text{ dB}$ / $L_w = 55 \text{ dB}$

25. 2 mm polymer damp-proof membrane reinforced with polyester felt and aluminum coating

26. 20 mm hard edge insulation

27. Kingspan Therma TT47

- first layer 120 mm

- second and third layers sloped insulation (1:40)

- $\lambda 0,024 \text{ W/mK}$ for more than 120 mm total insulation

- 1200 x 1200 mm plate size

28. Protan Grip Steel bar

29. Protan corner strip

30. 2 x 1000 x 20000 mm (roll) Protan T - terrace polyester-reinforced membrane glued with adhesive according to manufacturer

31. Adjustable 100% recyclable plastic tile footing with click-in system

32. 24 x 600 x 600 mm composite porcelain tiles with wooden texture appearance, non-slippery, resistant to frost, mold growth, stains, scratch and fade

33. 15 x 150 x 1000 mm steel grating, safe against slipping

STEEL SYSTEM AND FIRE ENCASEMENT (REI 120)

1. IPE 200 galvanized steel beam

2. 180 x 180 angle galvanized steel profile, 16 mm thick

3. 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)

4. 15 mm x 60 mm wide Glasroc F firecase backing strip

5. Gypframe FEA1 Steel Angle suitably fixed to beam flange at 600 mm centres

6. 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

HODY FLOOR PARTITIONS AND SUSPENDED CEILING

- EI 120

- $R_w = 63 \text{ dB}$ / $L_w = 50 \text{ dB}$

7. 10 x 80 x 1000 mm rubber step sound reducing strip

8. 1,7 mm x 130 mm (min. width) x 220 mm steel edge border

9. HODY steel plate

- height 150 mm

- nominal width 1010 mm

- standard lengths from 2400 mm to 12000 mm

- steel thickness 0,8 - 1 mm

- plates connected with HODY self-drilling screws each 350 mm

10. Anchor rod for fixing HODY plates

11. Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"

12. Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates

13. 70 mm thick foam wave block placed at the end of each non-loadbearing connection

14. Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)

+ 150 mm high concrete parapet (above Protan T roofing membrane)

15. 20 mm hard edge insulation

16. 10 mm Junckers step sound reduction muffing pad

17. Junkers base for extra height

18. DuoWedge system

19. 45 x 45 mm laminated battens

20. 70 mm mineral wool insulation for step sound reduction

21. 22 x 207 x 2200 mm wooden floor boards

21. Suspension hook

- length 90 - 1500 mm

- fixed into the structure in rows each 1200 mm

- clamped to the profile with pliers

22. Carrying profile

- length 3600 mm

- distance: 600 mm

23. Connection profile

- lenght 600 mm

24. 600 x 600 x 12,5 mm removable ceiling gypsum board

CURTAIN WALL DOOR

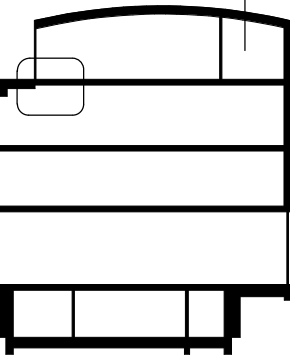
- $U\text{-value} = 0,78 \text{ W/m}^2\text{K}$

34. 15 mm steel threshold for easy wheelchair access

35. 1,4 mm aluminum flashing

36. 10 mm mineral wool caulking, polyethylene sealant backer rod and weather-proof silicone sealant

37. 850 x 2090 mm single casement clear glass/aluminum door



Terrace and door
1 : 5

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PROJECT: Mejlgade 37, Århus

DATE: 20.12.2020

SUBJECT: Terrace and door

SCALE: As
indicated

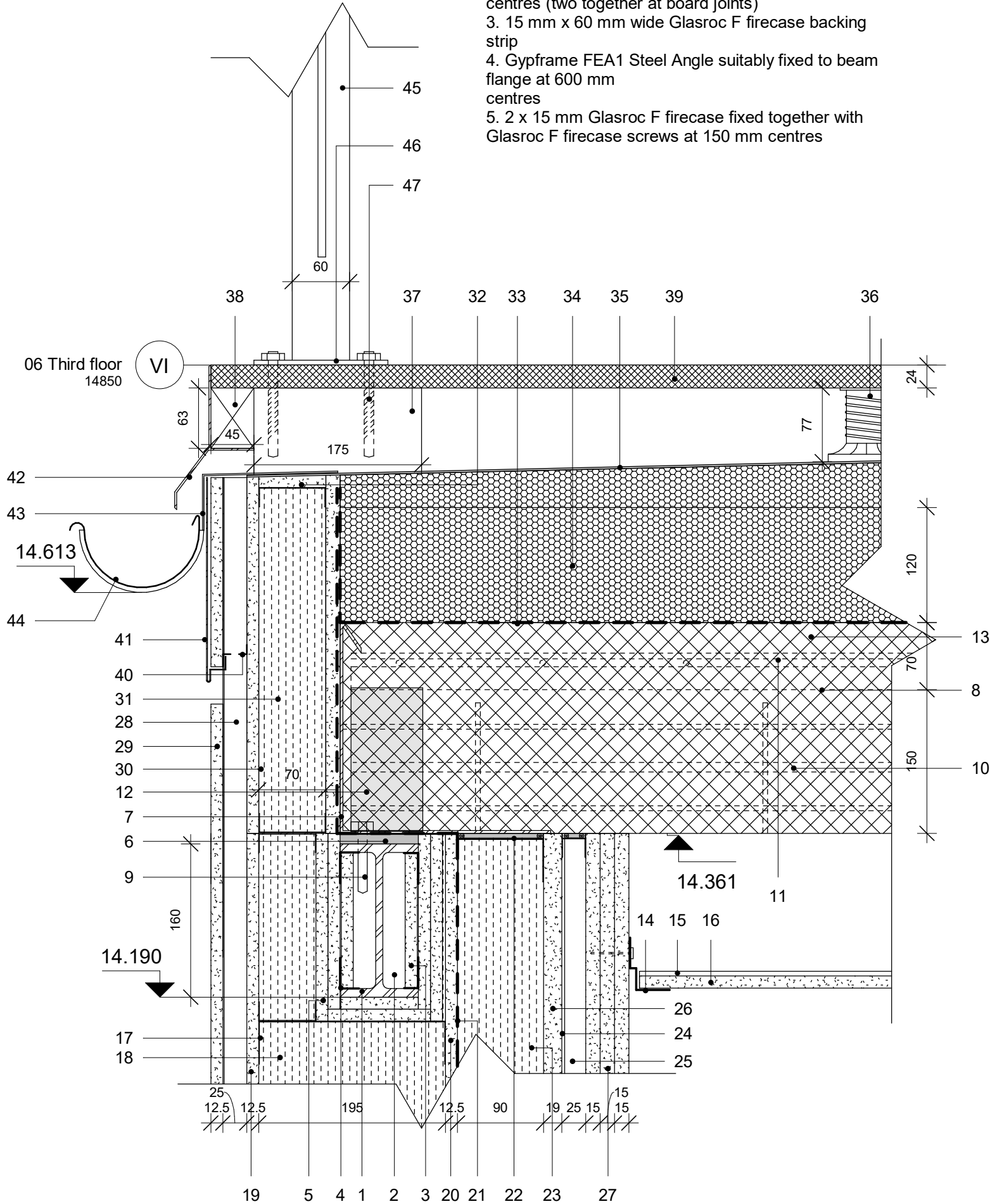
ELABORATED BY: Carina Pronsaia

CLASS: AH71P-20S

K01_TXX_H5_E6_N01

STEEL SYSTEM AND FIRE ENCASEMENT (REI 120)

1. IPE 160 galvanized steel beam
2. 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
3. 15 mm x 60 mm wide Glasroc F firecase backing strip
4. Gypframe FEA1 Steel Angle suitably fixed to beam flange at 600 mm centres
5. 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres



HODY FLOOR PARTITIONS AND SUSPENDED CEILING

- EI 120
- $R_w = 63 \text{ dB}$ / $L_w = 50 \text{ dB}$
- 6. 10 x 80 x 1000 mm rubber step sound reducing strip
- 7. 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
- 8. HODY steel plate
 - height 150 mm
 - nominal width 1010 mm
 - standard lengths from 2400 mm to 12000 mm
 - steel thickness 0,8 - 1 mm
 - plates connected with HODY self-drilling screws each 350 mm
- 9. Anchor rod for fixing HODY plates
- 10. Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
- 11. Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
- 12. 70 mm thick foam wave block placed at the end of each non-loadbearing connection
- 13. Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)
- 14. Edge rail
 - h: 33 mm; w: 30 mm; l: 3000 mm
 - fixed with flat head screw each 300 mm (first screw max. 50 mm from the corner)
- 15. Connection profile
 - length 600 mm
- 16. 600 x 600 x 12,5 mm removable ceiling gypsum board

EXTERNAL STEEL STUD AND GYPSUM WALL

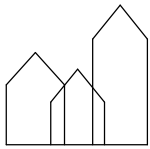
- EI 120
- $U\text{-value} = 0,11 \text{ W/m}^2\text{K}$
- 55 dB
- 17. 195 mm Thermoconic steel stud system
- 18. 195 mm mineral wool insulation ($\lambda = 0,037 \text{ W/mK}$)
- 19. 12,5 Gyproc Protect F Ergo windbreaker
- 20. 12,5 mm Gyproc Normal Ergo
- 21. 0,2 mm PE-foil as damp proof membrane
- 22. 90 mm internal steel stud system
- 23. 90 mm mineral wool insulation ($\lambda = 0,037 \text{ W/mK}$)
- 24. 60 mm Gyproc I-stud framework for FireWall
- 25. 25 mm Gypframe retaining channel
- 26. 19 mm Gyproc Core Board between studs
- 27. 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
- 28. 25 mm omega profile
- 29. 12,5 mm gypsum-based boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)
- 30. 70 mm upper steel stud frame
- 31. 70 mm mineral wool insulation ($\lambda = 0,037 \text{ W/mK}$)
- 32. 12,5 mm top gypsum board

ROOF TERRACE AND RAIN GUTTER

- EI 120
- $R_w = 55 \text{ dB}$ / $L_w = 55 \text{ dB}$
- 33. 2 mm polymer damp-proof membrane reinforced with polyester felt and aluminum coating
- 34. Kingspan Therma TT47
 - first layer 120 mm
 - second and third layers sloped insulation (1:40)
 - $\lambda 0,024 \text{ W/mK}$ for more than 120 mm total insulation
 - 1200 x 1200 mm plate size
- 35. 2 x 1000 x 20000 mm (roll) Protan T - terrace polyester-reinforced membrane glued with adhesive according to manufacturer
- 36. Adjustable 100% recyclable plastic tile footing with click-in system
- 37. 63 x 175 pressure-treated water-protected timber plank placed each 600 mm for edge support
- 38. 45 x 63 x 2400 mm timber batten connected to planks
- 39. 24 x 600 x 600 mm composite porcelain tiles with wooden texture appearance, non-slippery, resistant to frost, mold growth, stains, scratch and fade
- 40. Perforated strip
- 41. Zinc fascia profile
- 42. Schlüter BARA-RKLT eaves flashing
- 43. Galvanized steel gutter bracket
- 44. 120 mm zinc rainwater gutter

STAINLESS STEEL AND GLASS RAILING

- 45. Ø60 mm stainless steel railing baluster with 10 mm safety glass panels
- Handrail size: Ø50 x 1200 mm
- Stainless grade: 304
- Glass panel size: 10 x 600 x 950 mm clear tempered glass
- 46. 3 x 140 x 140 mm stainless steel bottom plate
- 47. 4 x 10 x 100 mm stainless steel bolts connected to timber planks



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PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H5_E6_N02
SUBJECT: Terrace and railing	SCALE: 1 : 5	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	

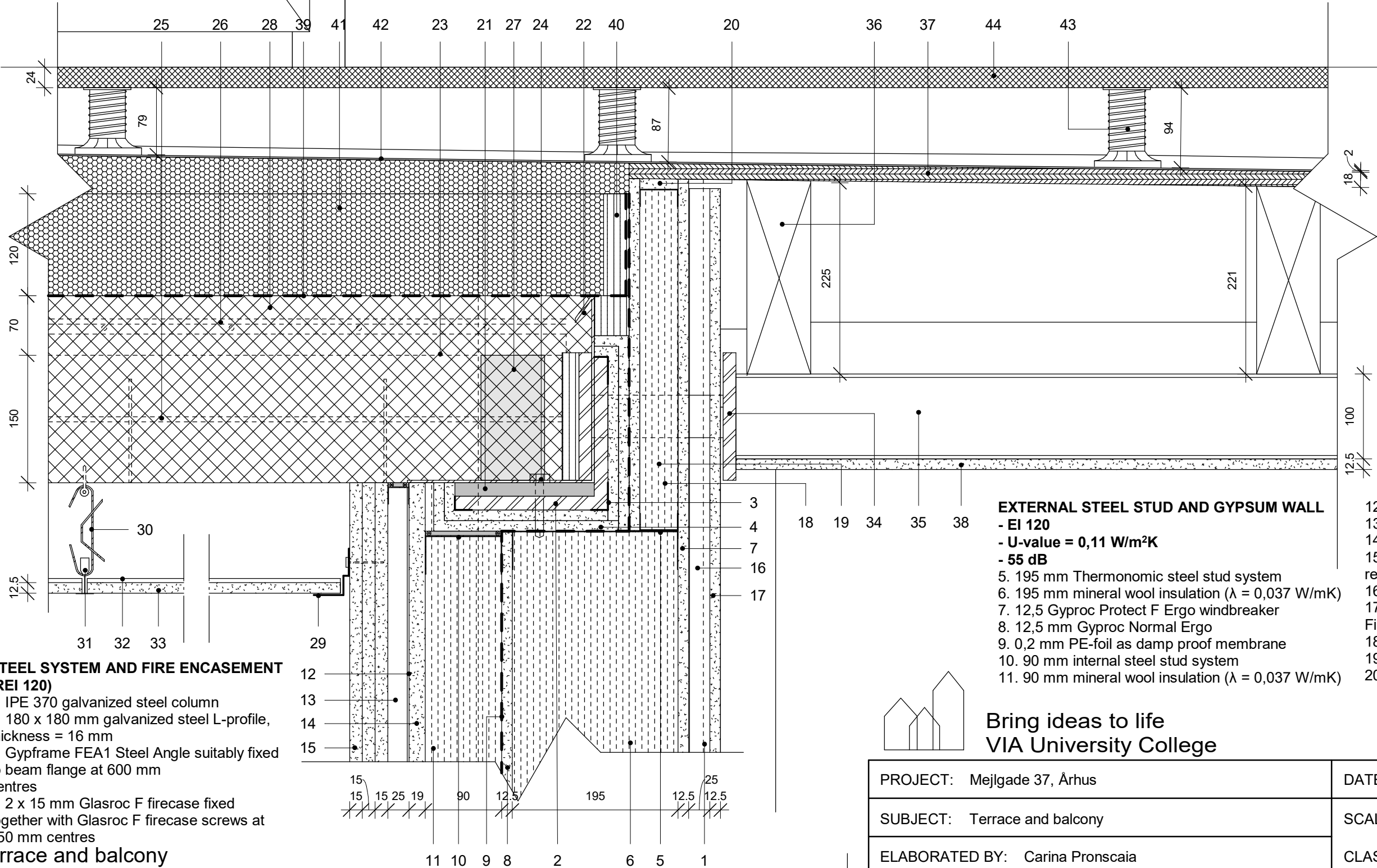
HODY FLOOR PARTITIONS AND SUSPENDED CEILING

- EI 120**
- Rw = 63 dB / Lw = 50 dB
21. 10 x 80 x 1000 mm rubber step sound reducing strip
22. 1,7 mm x 130 mm (min. width) x 220 mm steel edge border
23. HODY steel plate
- height 150 mm
- nominal width 1010 mm
- standard lengths from 2400 mm to 12000 mm
- steel thickness 0,8 - 1 mm
- plates connected with HODY self-drilling screws each 350 mm
24. Anchor rod for fixing HODY plates
25. Ø10 mm additional reinforcement bars on circular plastic supports, placed between each HODY "wave"
26. Ø6 mm reinforcement mesh (150 mm) on upper supporting metal plates
27. 70 mm thick foam wave block placed at the end of each non-loadbearing connection
28. Cast-in-situ concrete, 70 mm on top of HODY plate (or according to manufacturer's design to achieve EI120)

29. Edge rail
- h: 33 mm; w: 30 mm; l: 3000 mm
- fixed with flat head screw each 300 mm (first screw max. 50 mm from the corner)
30. Suspension hook
- length 90 - 1500 mm
- fixed into the structure in rows each 1200 mm
- clamped to the profile with pliers
31. Carrying profile
- length 3600 mm
- distance: 600 mm
32. Connection profile
- length 600 mm
33. 600 x 600 x 12,5 mm removable ceiling gypsum board

ROOF TERRACE

- EI 120**
- Rw = 55 dB / Lw = 55 dB
39. 2 mm polymer damp-proof membrane reinforced with polyester felt and aluminum coating
40. 30 mm hard edge insulation
41. Kingspan Therma TT47
- first layer 120 mm
- second and third layers sloped insulation (1:40)
- lambda 0,024 W/mK for more than 120 mm total insulation
- 1200 x 1200 mm plate size
42. Protan T - terrace polyester-reinforced membrane glued with adhesive according to manufacturer
- thickness - 2 mm
- length - 20 m
- width - 1 m
43. Adjustable 100% recyclable plastic tile footing with click-in system
44. 24 x 600 x 600 mm composite porcelain tiles with wooden texture appearance, non-slippery, resistant to frost, mold growth, stains, scratch and fade



VI 06 Third floor
14850

STEEL BALCONY

34. Halfen SBC steel balcony connector with thermal separator, reinforcement connected to HODY reinforcement with stirrups
35. IPE 100 galvanized steel beam
36. 75 x 225 x 6000 mm timber planks, sawn to slope towards the drain in the corner of balcony, fixed to IPE beams with Simpson brackets
37. 18 x 1220 x 2440 mm plywood underlay
38. 12,5 x 300 mm gypsum-based composite boards (e.g. Fermacell Fibergypsum/Powerpanel)

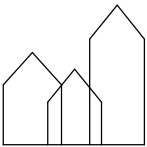
EXTERNAL STEEL STUD AND GYPSUM WALL

- EI 120**
- U-value = 0,11 W/m²K
- 55 dB
5. 195 mm Thermo-nomic steel stud system
6. 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
7. 12,5 Gyproc Protect F Ergo windbreaker
8. 12,5 mm Gyproc Normal Ergo
9. 0,2 mm PE-foil as damp proof membrane
10. 90 mm internal steel stud system
11. 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)

12. 60 mm Gyproc I-stud framework for FireWall
13. 25 mm Gypframe retaining channel
14. 19 mm Gyproc Core Board between studs
15. 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
16. 25 mm omega profile
17. 12,5 mm gypsum-based boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)
18. 45 mm upper steel stud frame
19. 45 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
20. 12,5 mm top gypsum board

STEEL SYSTEM AND FIRE ENCASEMENT (REI 120)

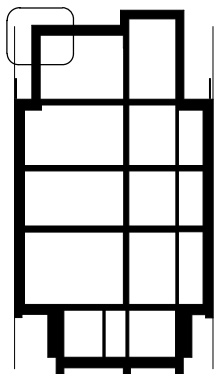
1. IPE 370 galvanized steel column
2. 180 x 180 mm galvanized steel L-profile, thickness = 16 mm
3. Gypframe FEA1 Steel Angle suitably fixed to beam flange at 600 mm centres
4. 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres



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PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H5_E6_N03
SUBJECT: Terrace and balcony	SCALE: 1 : 5	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



STEEL SYSTEM AND FIRE ENCASEMENT (REI 120)

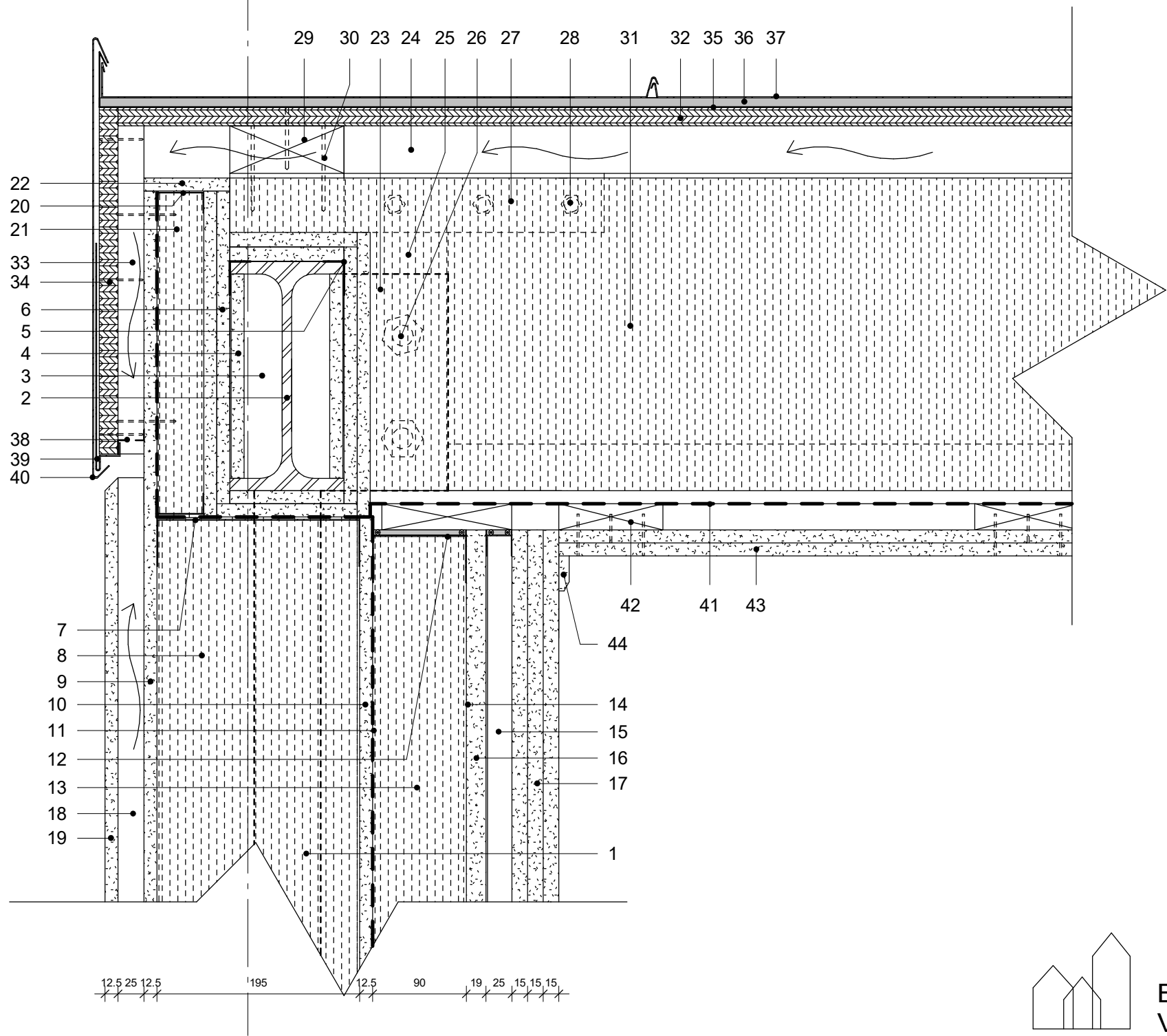
- 1. IPE 120 galvanized steel column
- 2. IPE 220 galvanized steel beam
- 3. 15 mm Glasroc F firecase soldiers at 1200mm centres (two together at board joints)
- 4. 15 mm x 60 mm wide Glasroc F firecase backing strip
- 5. Gypframe FEA1 Steel Angle suitably fixed to beam flange at 600 mm centres
- 6. 2 x 15 mm Glasroc F firecase fixed together with Glasroc F firecase screws at 150 mm centres

EXTERNAL STEEL STUD AND GYPSUM WALL

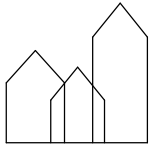
- EI 120
- U-value = 0,11 W/m²K
- 55 dB
- 7. 195 mm Thermonomic steel stud system
- 8. 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 9. 12,5 Gyproc Protect F Ergo windbreaker
- 10. 12,5 mm Gyproc Normal Ergo
- 11. 0,2 mm PE-foil as damp proof membrane
- 12. 90 mm internal steel stud system
- 13. 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 14. 60 mm Gyproc I-stud framework for FireWall
- 15. 25 mm Gypframe retaining channel
- 16. 19 mm Gyproc Core Board between studs
- 17. 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
- 18. 25 mm omega profile
- 19. 12,5 mm gypsum-based boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)
- 20. 45 mm upper steel stud frame
- 21. 45 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 22. 12,5 mm top gypsum board

ZINC ROOF

- EI 60
- U-value = 0,11 W/m²K
- 55 dB
- 23. 100 mm wide stee plate, pre-welded to IPE beam
- 24. 350 mm JJI-joist B+
- 63 x 45 mm top and bottom softwood flanges
- 9 mm OSB/3 web
- 6680 mm max. span
- cc 600
- double joist at gable connection
- 25. 100 x 27 x 203 mm timber web fillers from both sides of the web
- 26. 2 x 35 x 4,8 mm timber to steel stainless steel bolts
- 27. 350 x 27 x 52 mm timber plate screwed to OSB/3 web for 110 mm joist extension for plywood support
- 28. 3 x 35 x 4 mm timber to timber stainless steel screws
- 29. 50 x 110 x 63 mm timber batten screwed on top to joist extension plate for plywood support
- 30. 2 x 80 x 5 mm timberto timber stainless steel screw
- 31. 300 mm mineral wool insulation ($\lambda = 0,037$ W/mK), therefore 50 mm ventilation gap
- 32. 18 x 1220 x 2440 mm plywood roof underlay
- 33. 25 mm omega profile for ventilation gap
- 34. 18 x 330 mm plywood fascia board underlay
- 35. 0,2 mm EPDM roof membrane
- 36. 9 mm structured underlay (e.g. VAPOZINC)
- 37. 0,7 x 600 x 4000 mm double standing seam zinc plates
- 38. Perforated strip
- 39. Base trim
- 40. Zinc fascia profile
- 41. 0,2 mm PE-foil as damp proof membrane
- 42. 25 x 100 x 2400 mm ceiling battens, cc 400 (125 mm wide first batten)
- 43. 2 x 12,5 x 900 x 2400 mm gypsum ceiling boards
- 44. 10 x 2400 mm gypsum cornice bead



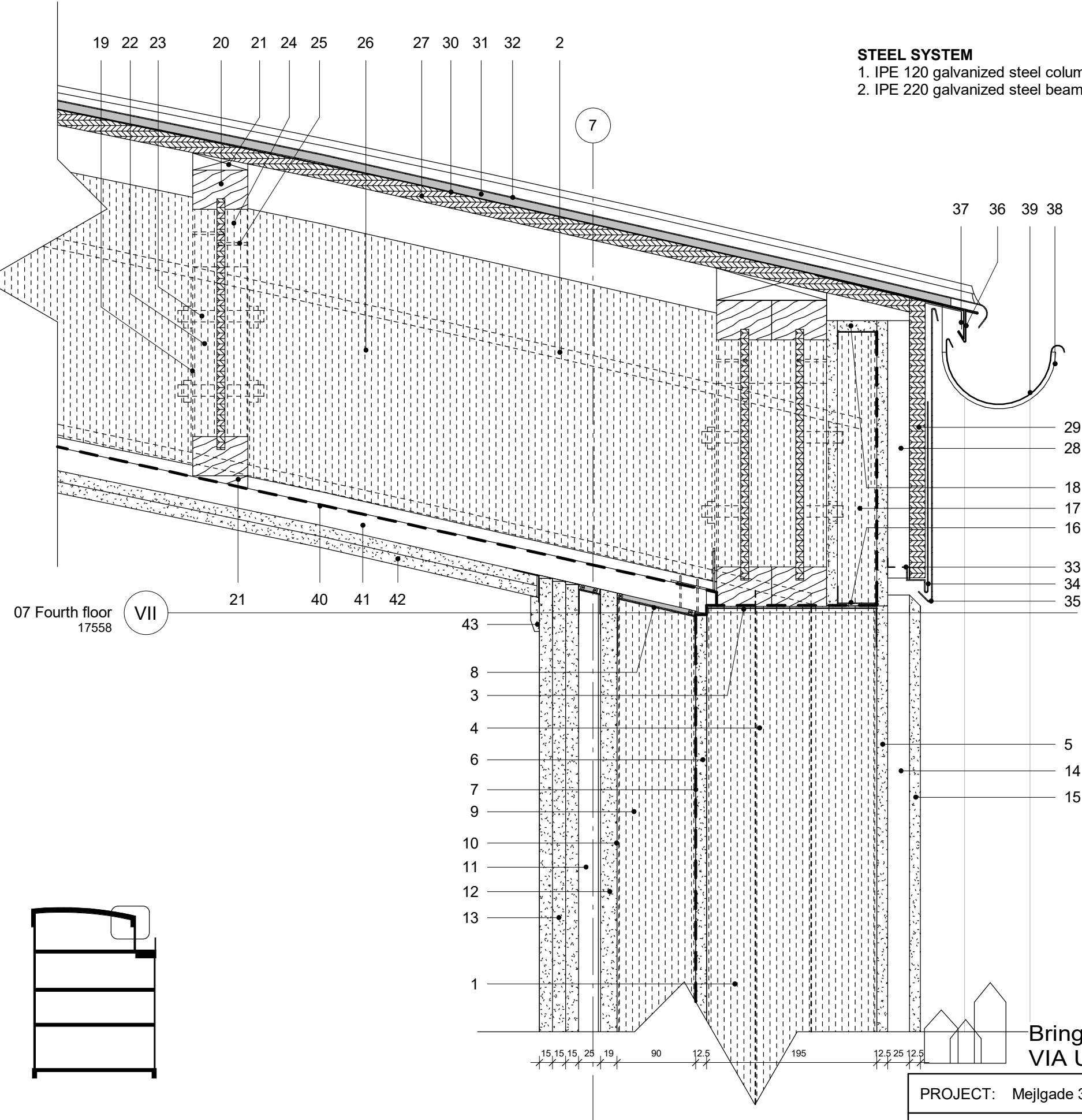
Roof and facade, loadbearing
1 : 5



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PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H5_E8_N01
SUBJECT: Roof and facade, loadbearing	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	



STEEL SYSTEM
1. IPE 120 galvanized steel column
2. IPE 220 galvanized steel beam

EXTERNAL STEEL STUD AND GYPSUM WALL

- EI 120
- U-value = 0,11 W/m²K
- 55 dB
- 3. 195 mm Thermo-nomic steel stud system
- 4. 195 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 5. 12,5 Gyproc Protect F Ergo windbreaker
- 6. 12,5 mm Gyproc Normal Ergo
- 7. 0,2 mm PE-foil as damp proof membrane
- 8. 90 mm internal steel stud system
- 9. 90 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 10. 60 mm Gyproc I-stud framework for FireWall
- 11. 25 mm Gypframe retaining channel
- 12. 19 mm Gyproc Core Board between studs
- 13. 3 x 15 mm Gyproc Fire Line for 120 min fire resistance
- 14. 25 mm omega profile
- 15. 12,5 mm gypsum-based boards (e.g. Fermacell Fibergypsum, Fermacell Powerpanel)
- 16. 45 mm upper steel stud frame
- 17. 45 mm mineral wool insulation ($\lambda = 0,037$ W/mK)
- 18. 12,5 mm top gypsum board

ZINC ROOF

- EI 60
- U-value = 0,11 W/m²K
- 55 dB
- 19. 100 mm wide steel plate, pre-welded to IPE beam
- 20. 350 mm JJI-joist B+
- 63 x 45 mm top and bottom softwood flanges
- 9 mm OSB/3 web
- 6680 mm max. span
- cc 600
- double joist at gable connection
- 21. Leveling batten
- screwed to the top of JJI-joist for plywood support
- screwed to the bottom of JJI-joist for ceiling batten connection
- 22. 100 x 27 x 203 mm timber web fillers from both sides of the web
- 23. 2 x 35 x 4,8 mm timber to steel stainless steel bolts
- 24. 350 x 27 x 52 mm timber plate screwed to OSB/3 web for 110 mm joist extension for plywood support
- 25. 3 x 35 x 4 mm timber to timber stainless steel screws
- 26. 300 mm mineral wool insulation ($\lambda = 0,037$ W/mK), therefore 50 mm ventilation gap
- 27. 18 x 1220 x 2440 mm plywood roof underlay
- 28. 25 mm omega profile for ventilation gap
- 29. 18 x 330 mm plywood fascia board underlay
- 30. 0,2 mm EPDM roof membrane
- 31. 9 mm structured underlay (e.g. VAPOZINC)
- 32. 0,7 x 600 x 4000 mm double standing seam zinc plates
- 33. Perforated strip
- 34. Base trim
- 35. Zinc fascia profile
- 36. Eaves flashing
- 37. Galvanized steel support profile
- 38. Galvanized steel gutter bracket
- 39. 120 mm zinc rainwater gutter
- 40. 0.2 mm PE-foil as damp proof membrane
- 41. 25 x 100 x 2400 mm ceiling battens, cc 400 (125 mm wide first batten)
- 42. 2 x 12,5 x 900 x 2400 mm gypsum ceiling boards
- 43. 10 x 2400 mm gypsum cornice bead

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PROJECT: Mejlgade 37, Århus	DATE: 20.12.2020	K01_TXX_H5_E8_N02
SUBJECT: Roof and facade, non-loadbearing	SCALE: As indicated	
ELABORATED BY: Carina Pronsaia	CLASS: AH71P-20S	