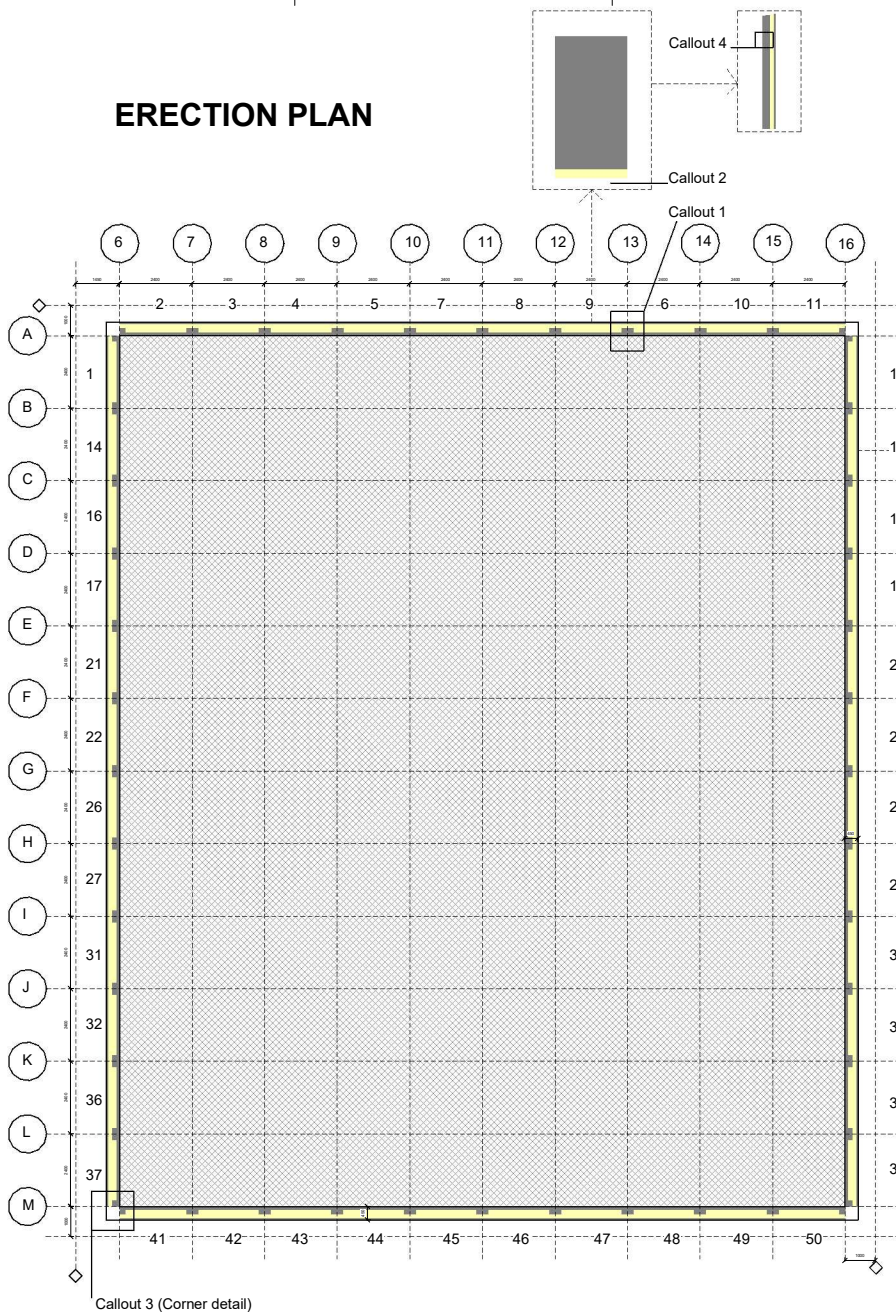
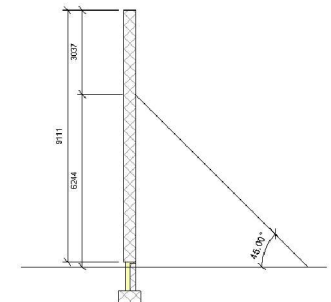


ERECTION PLAN



Callouts details:	Number orders are TTS mounting:
Callout 1- Element- Element detail	15
Callout 2- Steel beam- Element detail	20
Callout 3- Corner detail	25
Callout 4- Gable - TTS detail	30
Callout 5- Foundation detail	35
Callout 6- Facade-TTS detail	40
	51

Bracing detail



Control Plan

QUALITY CONTROL PLAN		
Check delivered elements	Yes	No
If elements are secured		
If there are cracks		
Dimensions		
Name of the element		
Clean mounting surface		
Bracing	Yes	No
Place bracing while element is still on truck		
Make sure that it was placed correctly		
Crane	Yes	No
Make sure that temporary bracing was placed correctly		
Connect crane hooks to loop boxes on element		
Make sure all the hooks are connected		
Make sure no one is in the area where crane is		
Lift carefully		
Lift always only 1 element		
Carefully rotate element		
Place element to the place (check plan)		
Wait until temporary support is placed		
Make sure that element is stable		
Unhook the hooks (use platform lift)		
Bracing	Yes	No
After element is transfered by crane to its place, mount the bracings and temporary support		
Move to next element		
*Keep temporary bracing until all TTS is placed and building is closed		
*Bracing of elements ET7, ET9A,ET9I,ET9I are placed 10cm lower than bracing in other elements		

Element-Element connection Detail

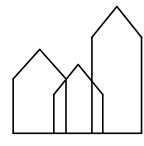
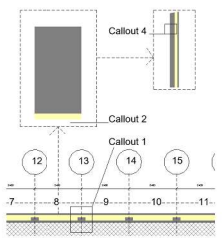
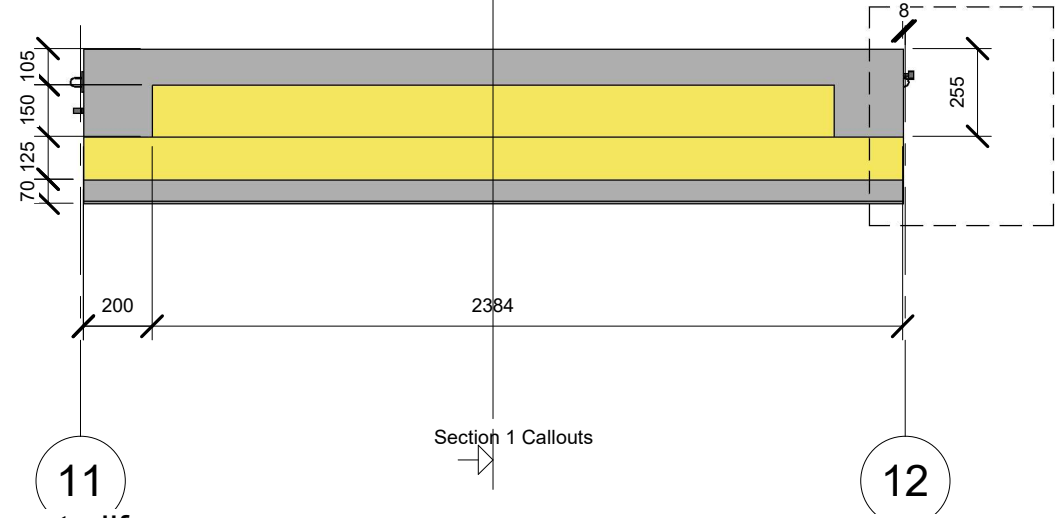
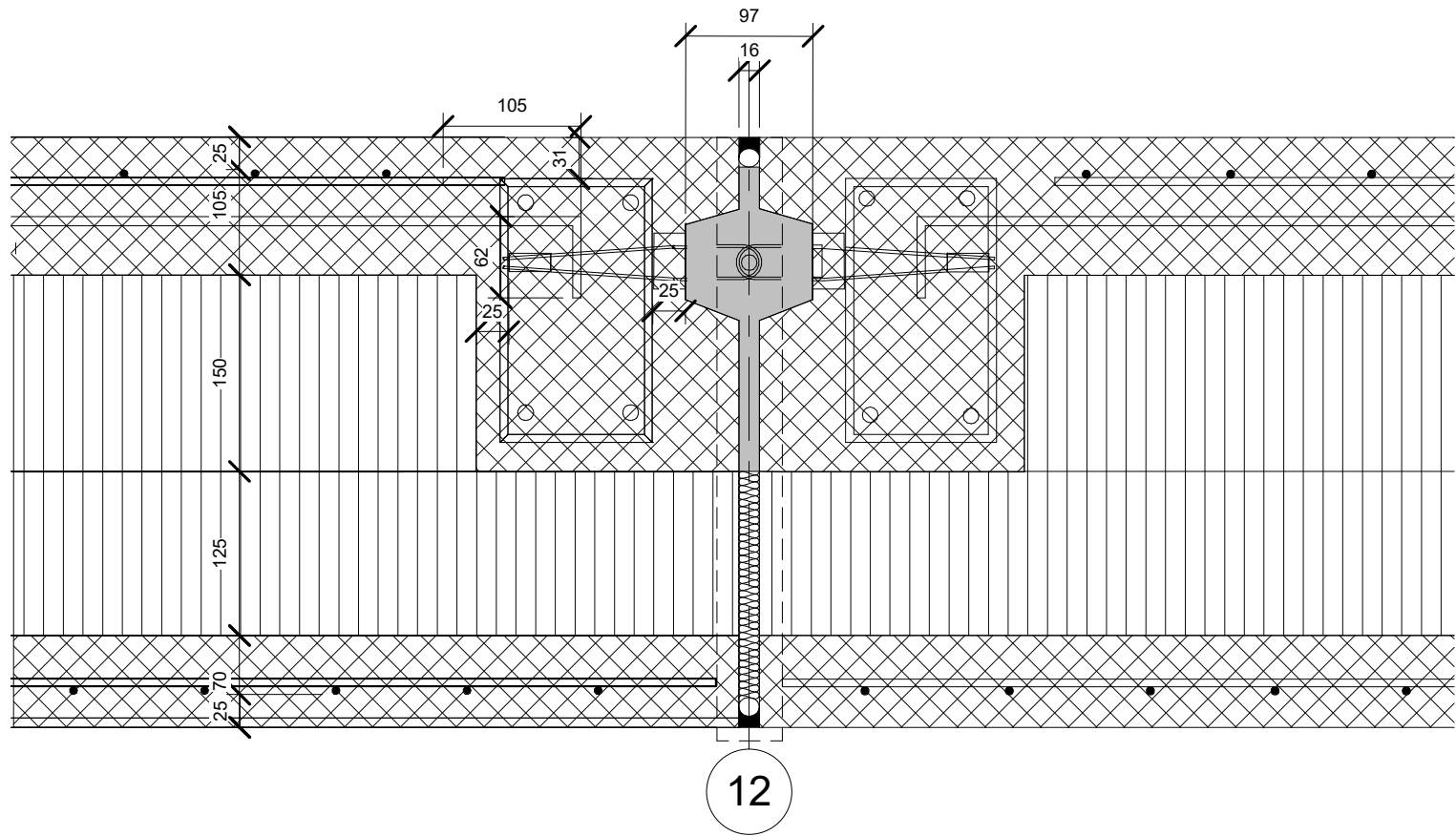
Sandwich Element:
105mm Inner Leaf
275mm XPS Jackson rigid
Insulation
70mm Outer Leaf
2384mm width

Inner leaf Reinforcement:
1xY7/70mm Mesh

Outer leaf Reinforcement:
1xY8/75mm Mesh

Ribs:
48xY6 Stirrups placed
25mm from edges
10xY12 Rebars (Inside
stirrups and along mesh)

Done on site:
The connection of loop boxes in done on
site by overlapping chords and placing a
reinforcement in the middle then filling
up with concrete
Edges are then filled with two step
backstop joint
170x16mm soft insulation between
elements insulation and outer leaves



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PROJECT: Grejs Kulturcenter - ID05	DATE: 05/23/22	5
SUBJECT: Element-Element connection	SCALE: As indicated	
DRAWN BY: Ana Araújo	CLASS:	

Element-Steel Beam detail

Element-Steel Beam connection:

HEB 300 placed 17mm from inner leaf, above opening and supported by columns
HTA-CE railing system attached to inner leaf and steel beam by M20 screw (40x60x6)
Steel mesh formwork placed around steel beam and plastered with mortar

Sandwich Element:

105mm Inner Leaf
275mm XPS Jackson Insulation
70mm Outer Leaf
1984mm width

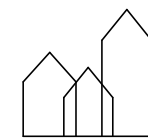
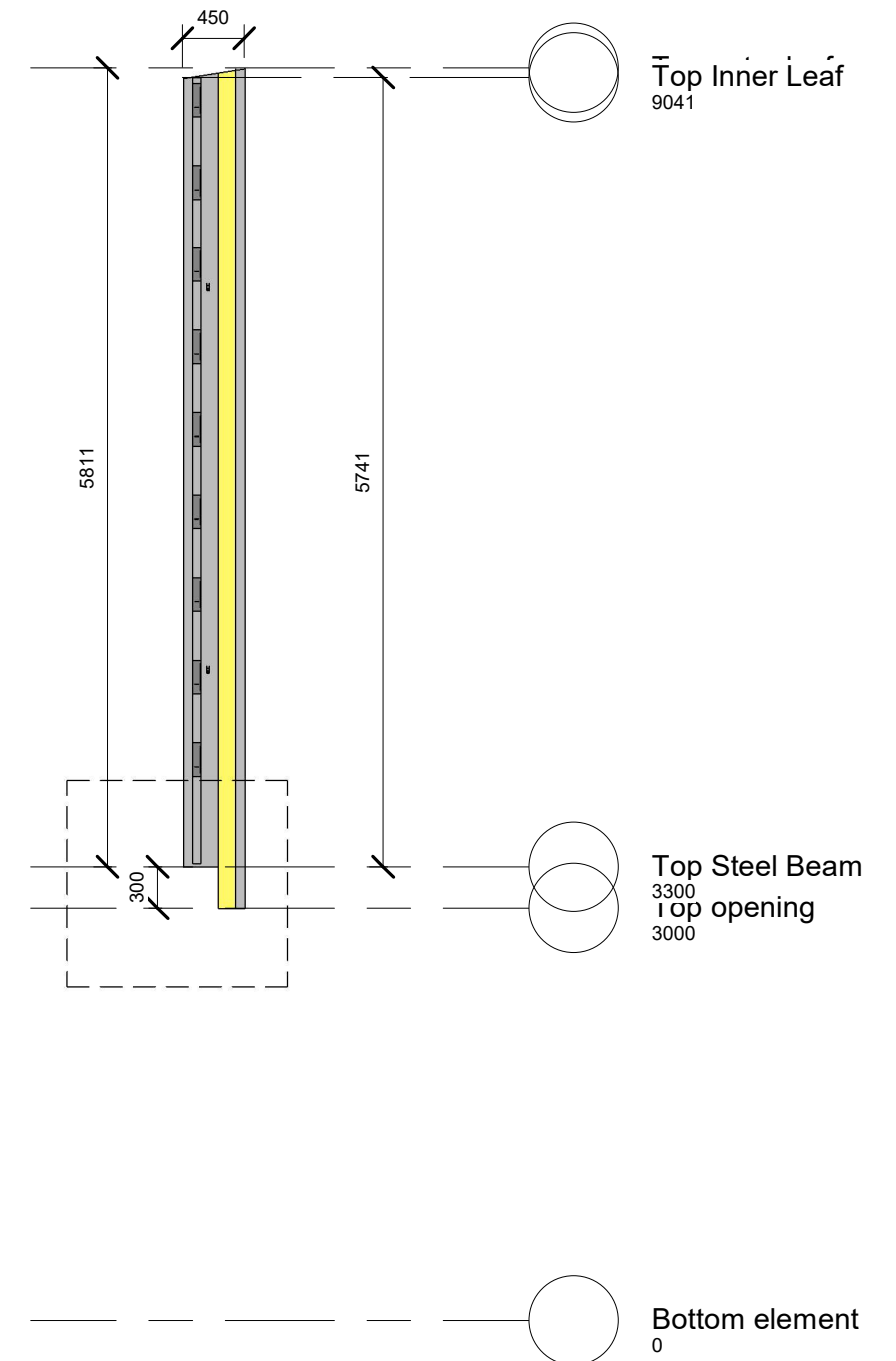
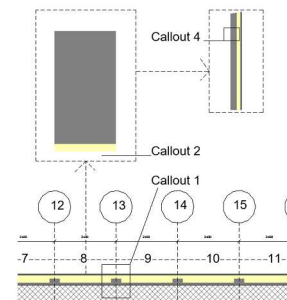
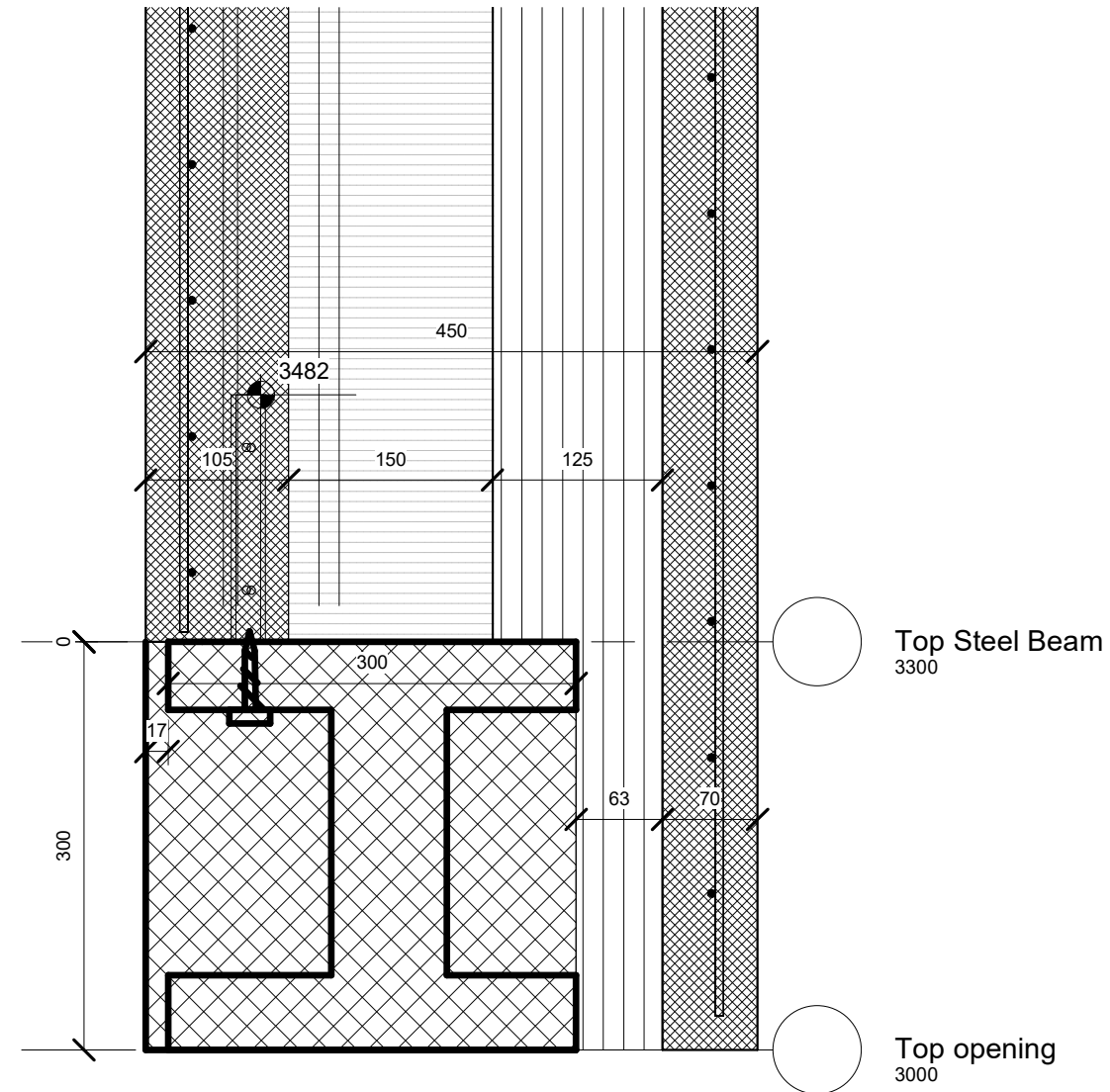
Inner leaf

Reinforcement:
1xY7/70mm Mesh

Outer leaf

Reinforcement:
1xY8/75mm Mesh

Outer leaf starts at steel beam height (3000mm)
63mm of insulation besides outer leaf



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PROJECT: Grejs Kulturcenter - ID05

DATE: 05/26/22

SUBJECT: Element- Steel Beam Connection

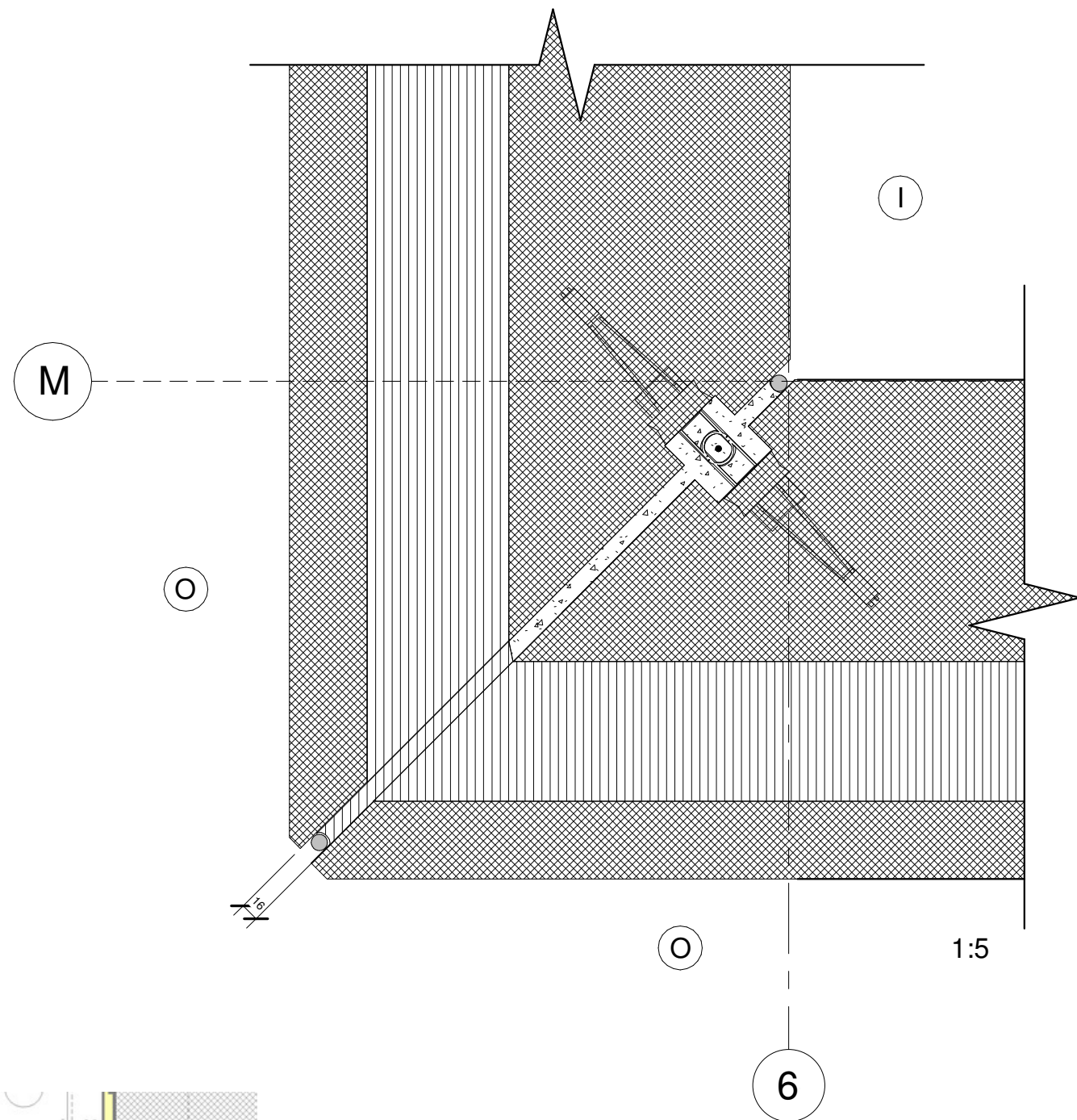
SCALE: As indicated

DRAWN BY: Ana Araújo

CLASS:

6

Concrete corner detail



2 prefabricated corner sandwich elements

45°
 Connected by 2 loopboxes with a rebar between them
 16mm gap
 2 elastic seals at the ends of the gap
 Polystyrene is placed in the gap between insulations and outer leafs
 Gap between inner leafs is filled with mortar

Sandwich element 450mm

105mm concrete inner leaf
 200x255mm ribs
 275mm XPS Jackson insulation
 70mm outer leaf
 2384mm width, 9111mm height

Inner leaf Reinforcement:

1xY7/70mm Mesh

Outer leaf Reinforcement:

1xY8/75mm Mesh

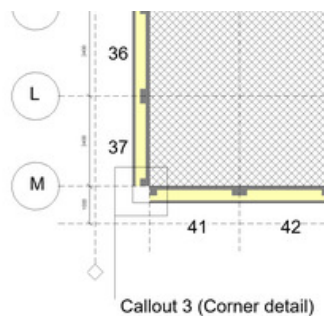
Ribs:

48xY6 Stirrups placed 25mm from edges
 10xY12 Rebars (Inside stirrups and along mesh)



Loop box

- (T) Top (O) Outside
- (B) Bottom (L) Left
- (I) Inside (R) Right



Callout 3 (Corner detail)

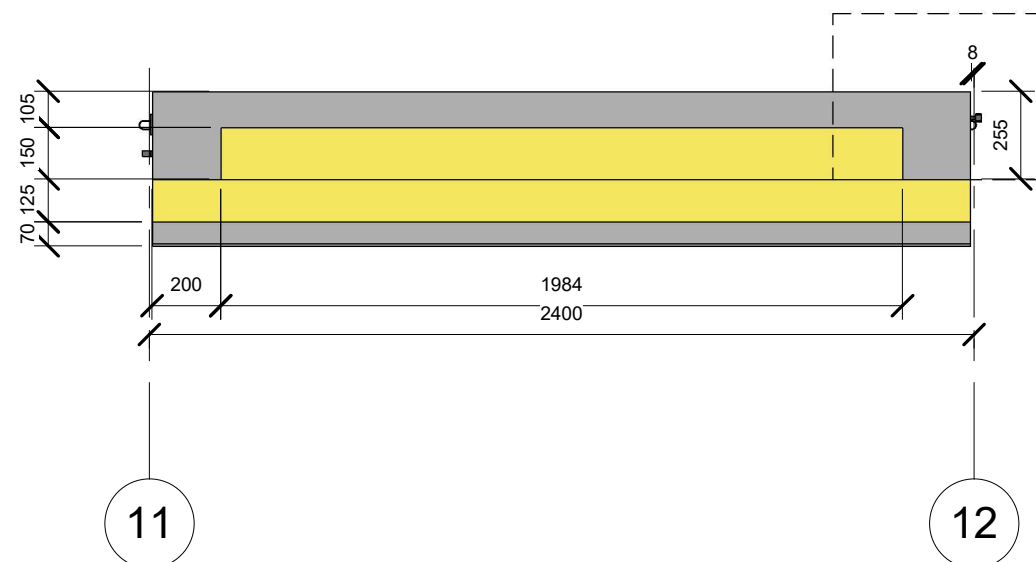
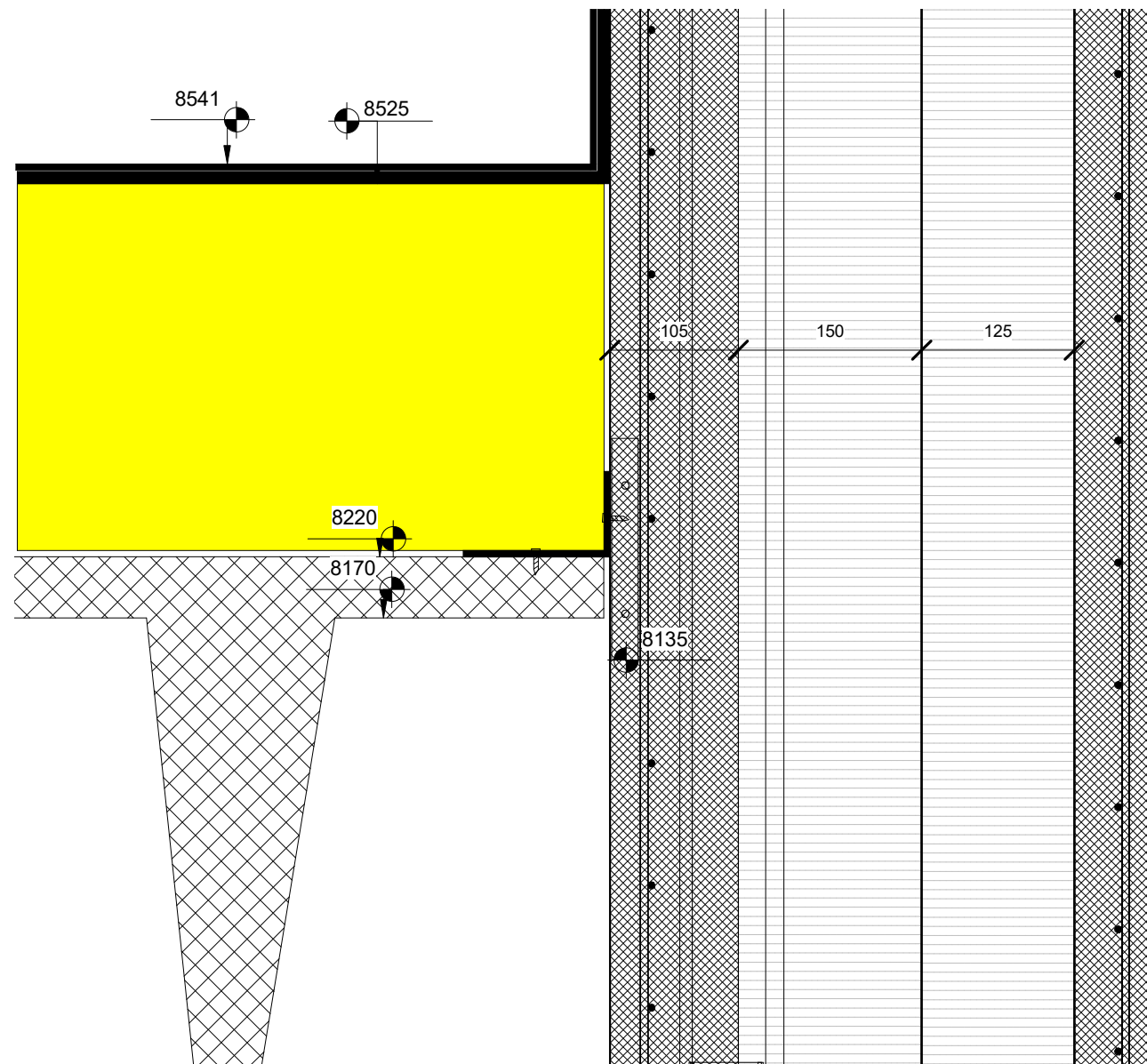


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PROJECT: Grejs Kulturcenter- IDO3	DATE: 06/10/22	A125
SUBJECT: Concrete corner detail	SCALE: As indicated	
DRAWN BY: Klaudia	CLASS:	

Element-TTS connection detail



TTS:

50mm TTS (thickness)
300mm rigid rockwool insulation
3mm and 4mm torched roofing felt
1:40 slope done with rigid insulation

TTS on gable connection:

HTA-CE railing system attached to inner leaf and TTS by M20 screws (40x60x6)

Sandwich Element:

105mm Inner Leaf
275mm XPS Jackson rigid Insulation
70mm Outer Leaf
2384mm width

Inner leaf Reinforcement:

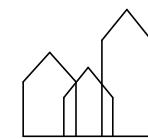
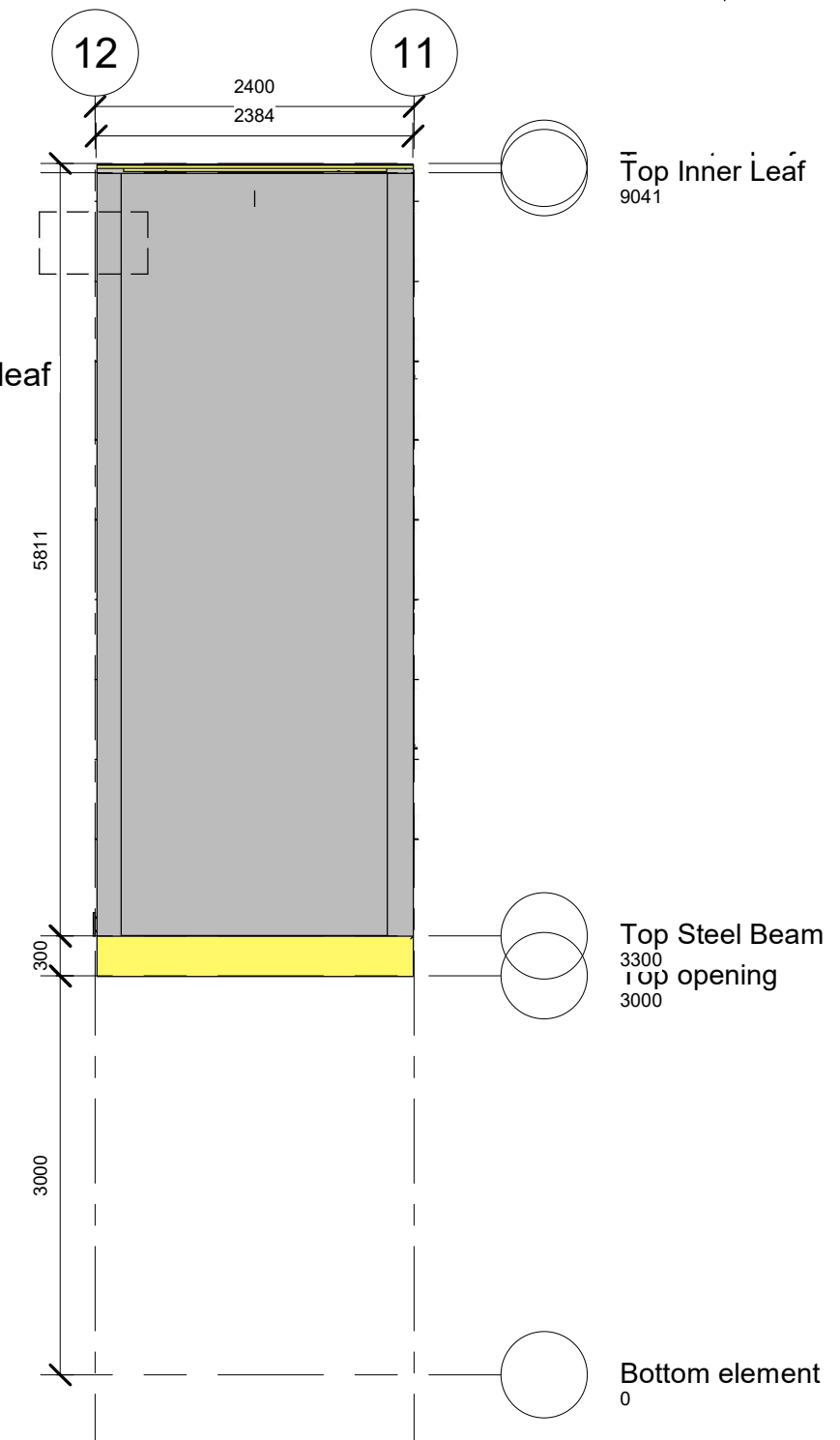
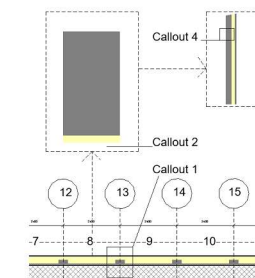
1xY7/70mm Mesh

Outer leaf Reinforcement:

1xY8/75mm Mesh

Ribs:

48xY6 Stirrups placed
25mm from edges
10xY12 Rebars (Inside
stirrups and along mesh)



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PROJECT: Grejs Kulturcenter - ID05	DATE: 05/23/22	4
SUBJECT: Element-TTS connection	SCALE: As indicated	
DRAWN BY: Ana Araújo	CLASS:	

Facade element/Foundation detail

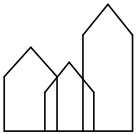
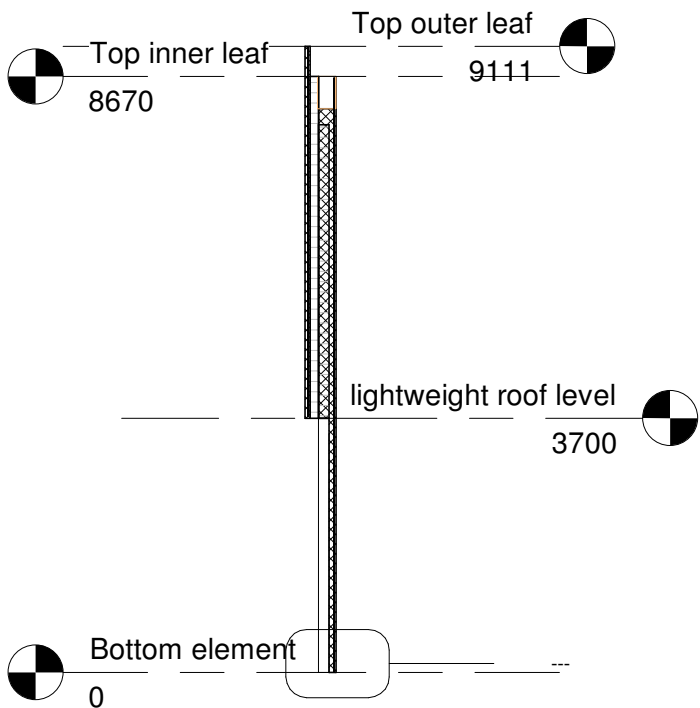
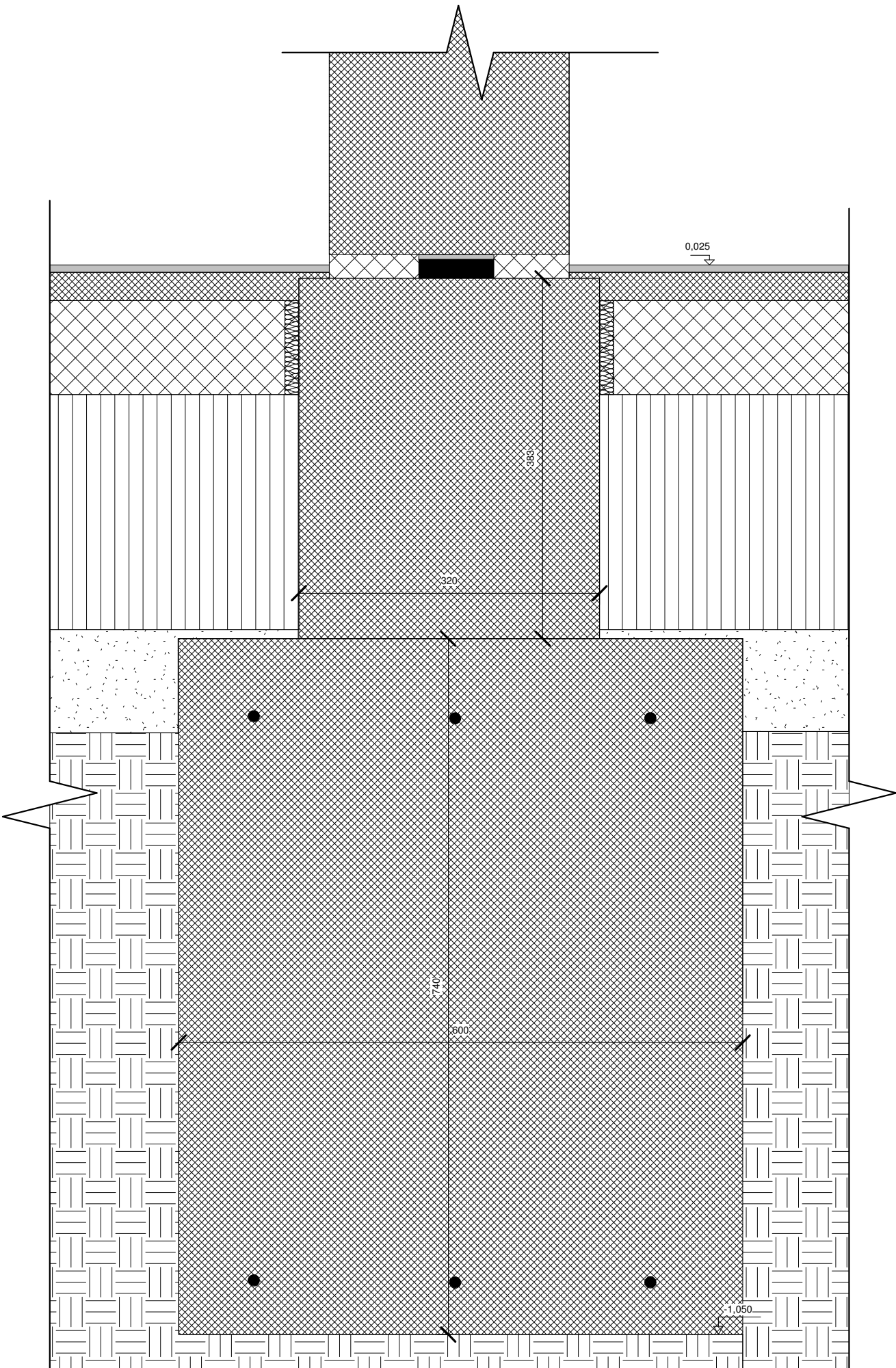
Only inner leaf is connected to the foundation.

Ground supported slab:

- 8mm Linoleum
- 30mm screed
- 100mm concrete slab
- 250mm polystyrene
- 100mm gravel

Foundation:

- Knudsen K-Klods 6T, white 5 mm adjusting plate, 5x50x80mm
- Knudsen K-Klods 6T, black 20 mm adjusting plate, 20x50x80mm
- The gap 25mm is filled with expanded concrete
- In-situ cast concrete 320x380mm,
- 15mm soft insulation on the sides to avoid cold bridge
- Reinforced concrete foundation footing 600x740mm
- 6 reinforment bars Ø12mm



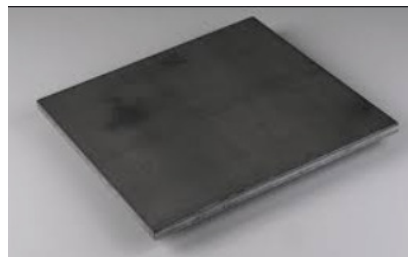
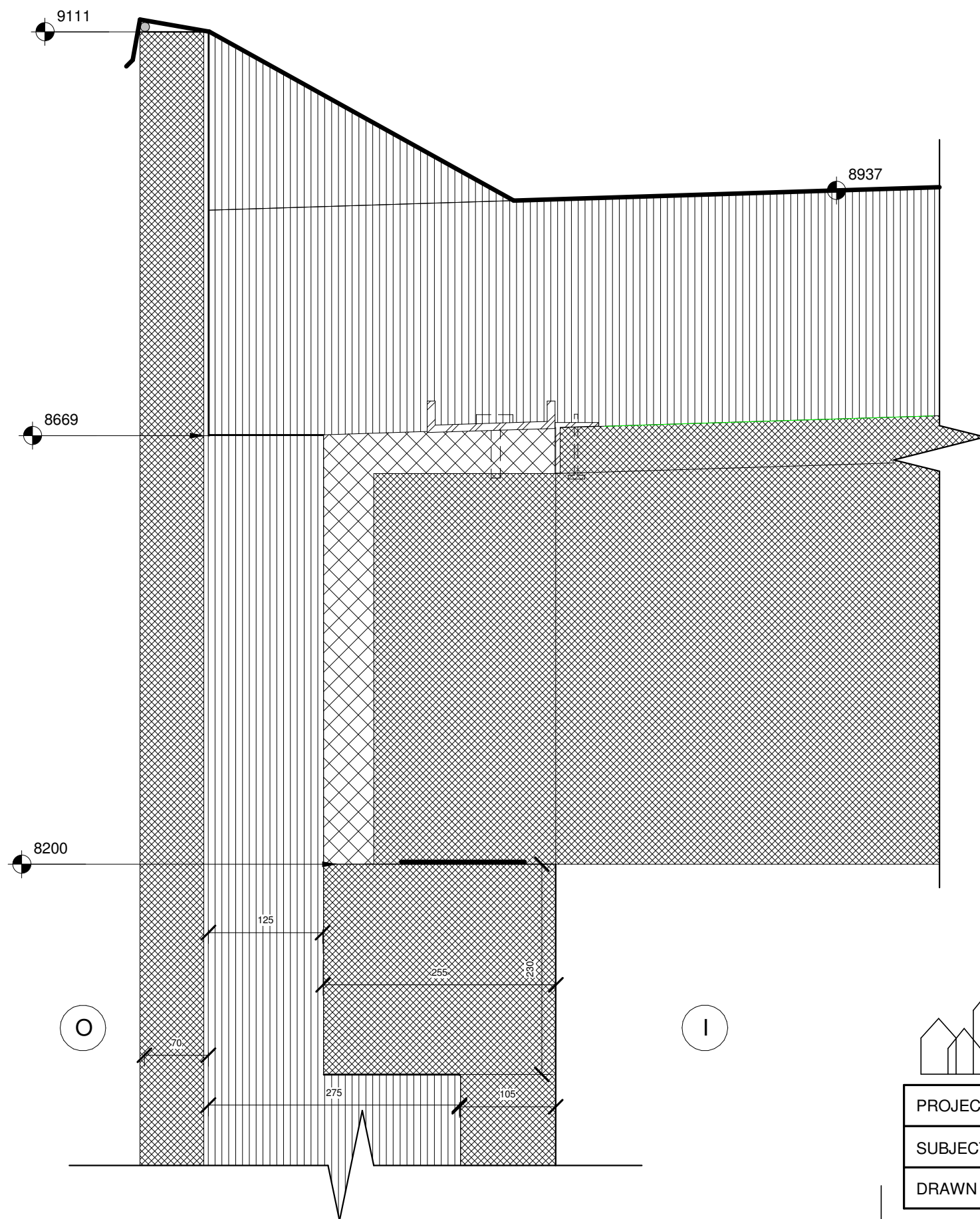
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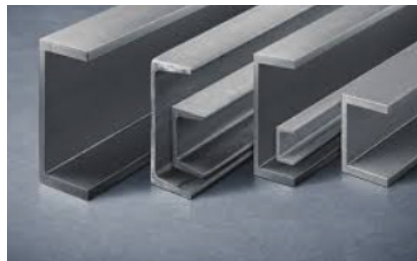
PROJECT: Grejs Kulturcenter- IDO3	DATE: 06/07/22	A123
SUBJECT: Element/foundation detail	SCALE: As indicated	
DRAWN BY: Klaudia	CLASS:	

Facade element/ TTS connection detail

A122



Steel plate

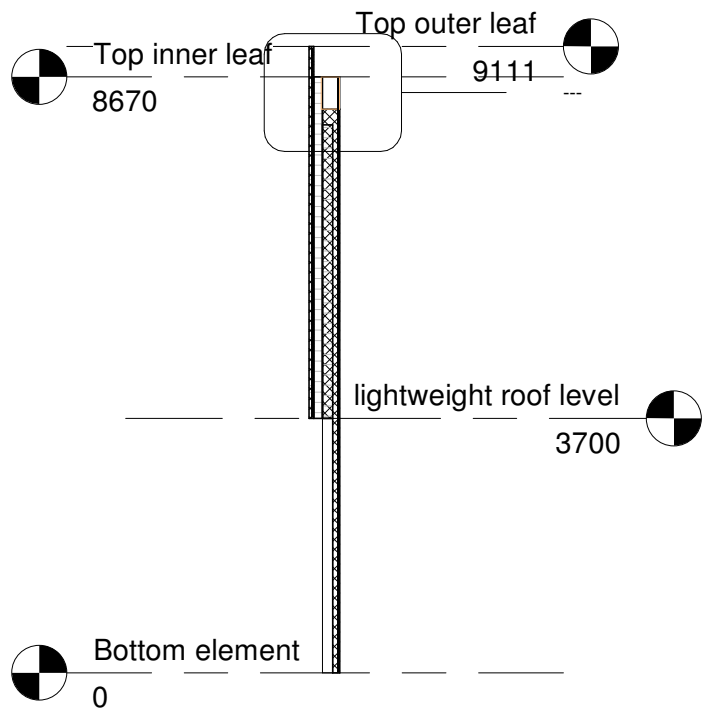


UNP profile

Facade element: Sandwich element 450mm

70mm concrete c30/37 outer leaf (height 9,1m)
275mm XPS Jackson insulation (height 8,669m)
150mm between ribs
125mm between outer and inner leaf(height 8.2m)
105mm concrete c20/25 inner leaf
Facade finish: Glat sort afsyret

Roof:
1:40 slope
TTS elements Spaencom 90
2400x50mm
1,5mm Vapor barrier
250mm Rockwool hard insulation
4mm Roofing felt
Ø5mm elastic seal
Steel flashing
UNP profile
2x steel plates between TTS
ribs and facade element
(gap is filled with mortar)



- (T) Top (O) Outside
(B) Bottom (L) Left
(I) Inside (R) Right



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Page 16
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PROJECT: Grejs Kulturcenter- IDO3	DATE: 06/06/22	A122
SUBJECT: TTS/Facade detail	SCALE: As indicated	
DRAWN BY: Klaudia	CLASS:	