

TU Darmstadt  
Solar Decathlon 07

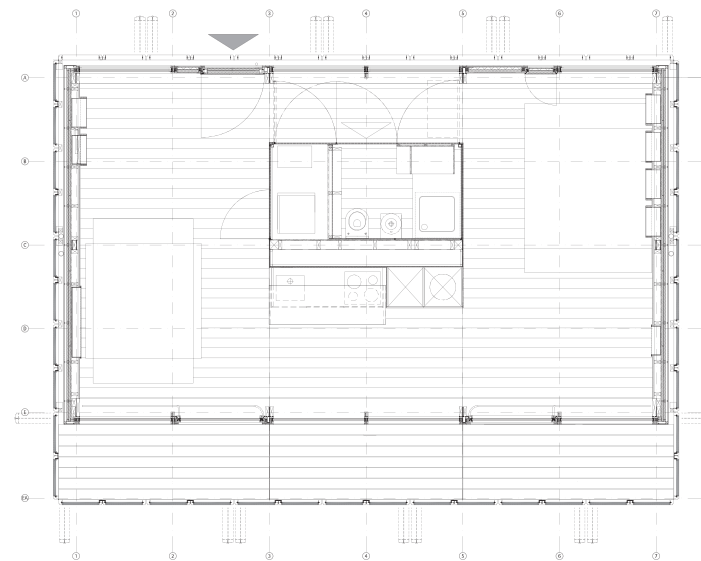
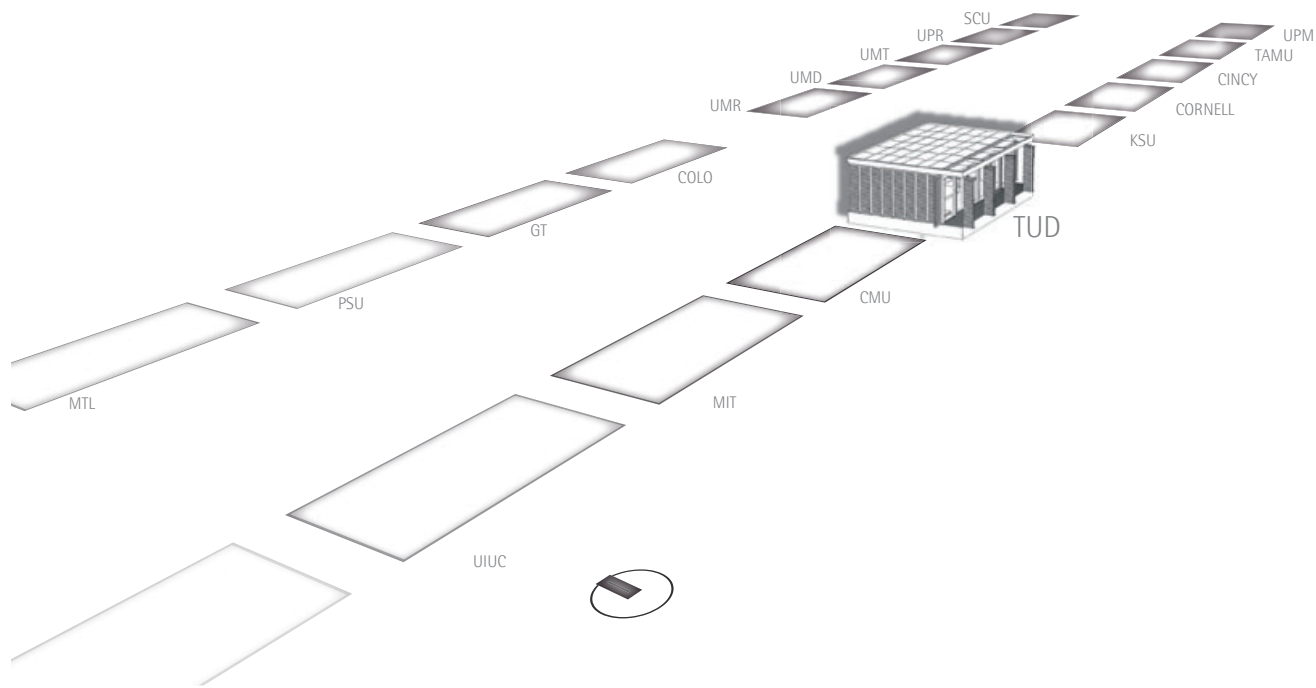
## Drawings

August 7th Deliverables

Sustainability is the TUD Solar Decathlon Team vision for the future of dwelling and architecture. We defined some key aspects our architecture has to meet:  
Energy-efficiency: In our Solar Decathlon House design we aim to demonstrate that high living quality can be provided while drastically minimizing the energy consumption of a building. Every kilowatt hour of energy saved represents less impact on our environment. We think that the best way to meet these goals is an simple and adaptable concept. Therefore we chose a passiv solar cybernetic system which is supported by a highly technological active system

„Made in Germany“ as the core of our design strategy. These already forgotten techniques of the time before the invention of air-conditioning are simple and reliable systems for temperature, light and humidity control. By their means the building reacts to local and seasonal climatic situations without needing additional energy for living comforts. As architects we claim to create living spaces that both meet functional needs of the inhabitants and represent an environment suitable to all of our senses. Therefore we recognize optics, haptics, acoustics and the indoor-outdoor relation as vital for our design.

Economics and Materials: By regarding the life cycle in selecting building components and materials we work towards reducing operating costs. To take advantage of material properties we aspire to use them suitable to their specifics. We see our house as a prototype for future serial production and want to offer different user configurations by use of platform modules, as common in automobile manufacturing.



SOLAR DECATHLON 07  
TEAM DEUTSCHLAND

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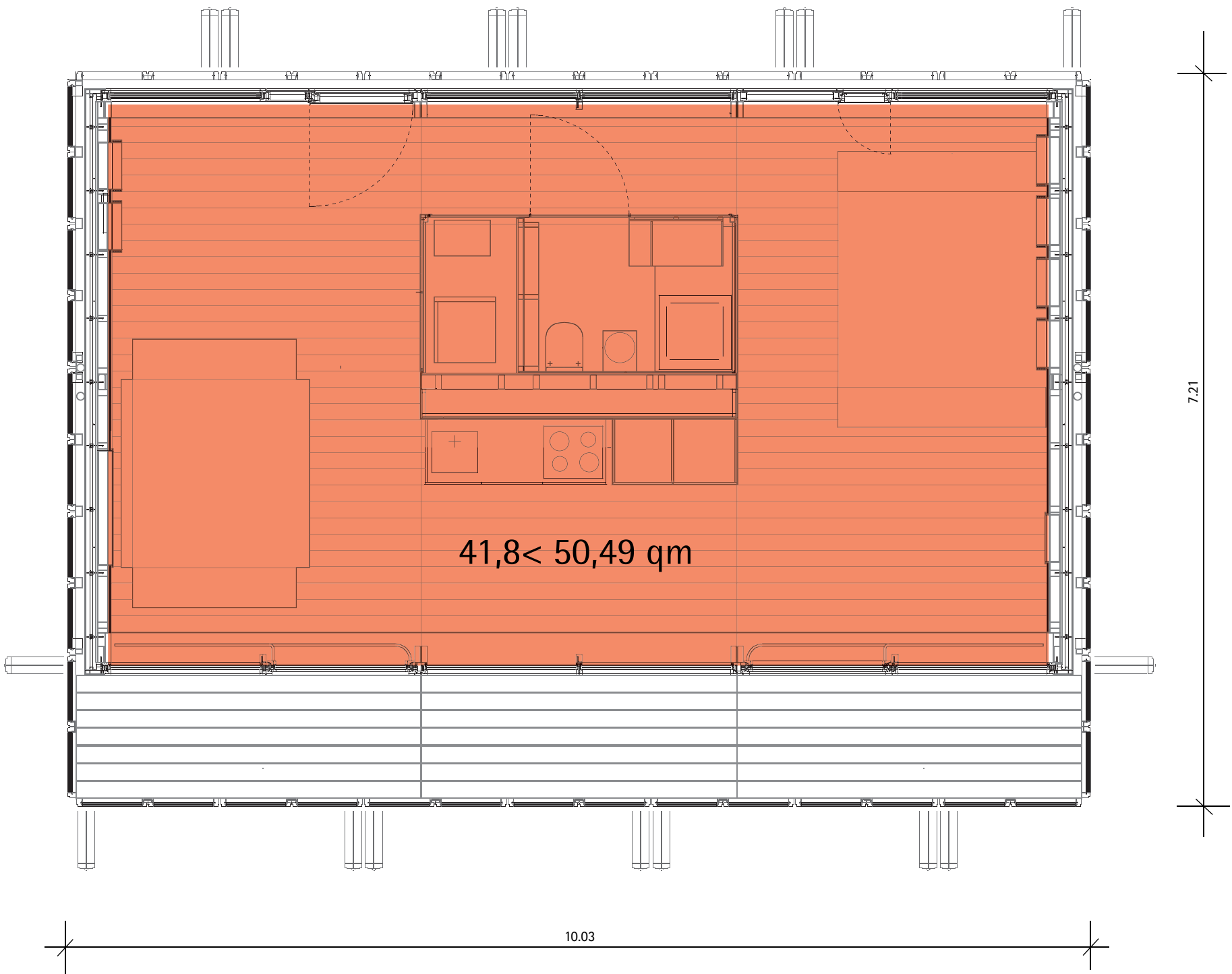
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1  
G1.1

Scale 1:50



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1	Issued for Deliverable	07/08/07	AK
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Conditioned Area	1:50	

DRAWING NUMBER  
**G1.0**  
COMPONENT  
Conditioned Area

FOOTPRINT CALCULATION:

On Feburary, the 1st Mike Wassmer agreed on only counting the square footage of the louvers in the South, West and East but on the North facade.

footprint of building:

$10.03\text{ m} \times 7.21\text{ m} = 72.31\text{ sqm}$   
 $32.99\text{ ft} \times 23.6\text{ ft} = 778.4\text{ sqft}$

louvers:

single louver:

$0.63\text{ m} \times 0.17\text{ m} = 0.11\text{ sqm}$   
 $2.07\text{ ft} \times 0.56\text{ ft} = 1.16\text{ sqft}$

all louvers:

$9 \times 0.11\text{ sqm} = 0.99\text{ sqm}$   
 $9 \times 1.16\text{ sqft} = 10.44\text{ sqft}$

footprint alltogether:

$72.31\text{ sqm} + 0.99\text{ sqm} = 73.3\text{ sqm}$   
 $778.4\text{ sqft} + 10.44\text{ sqft} = 788.84\text{ sqft}$



Floorplan with opened louvers  
Scale 1:50





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1	Issued for Deliverable	07/08/07	EZ		
INDEX	DESCRIPTION	DATE	NAME		
INDEX	DESCRIPTION	SCALE			
1	Floorplan / opened louvers	1:50			
DRAWING NUMBER					
G1.1					
COMPONENT					
Footprint					

FOOTPRINT CALCULATION:

fooprint of building:

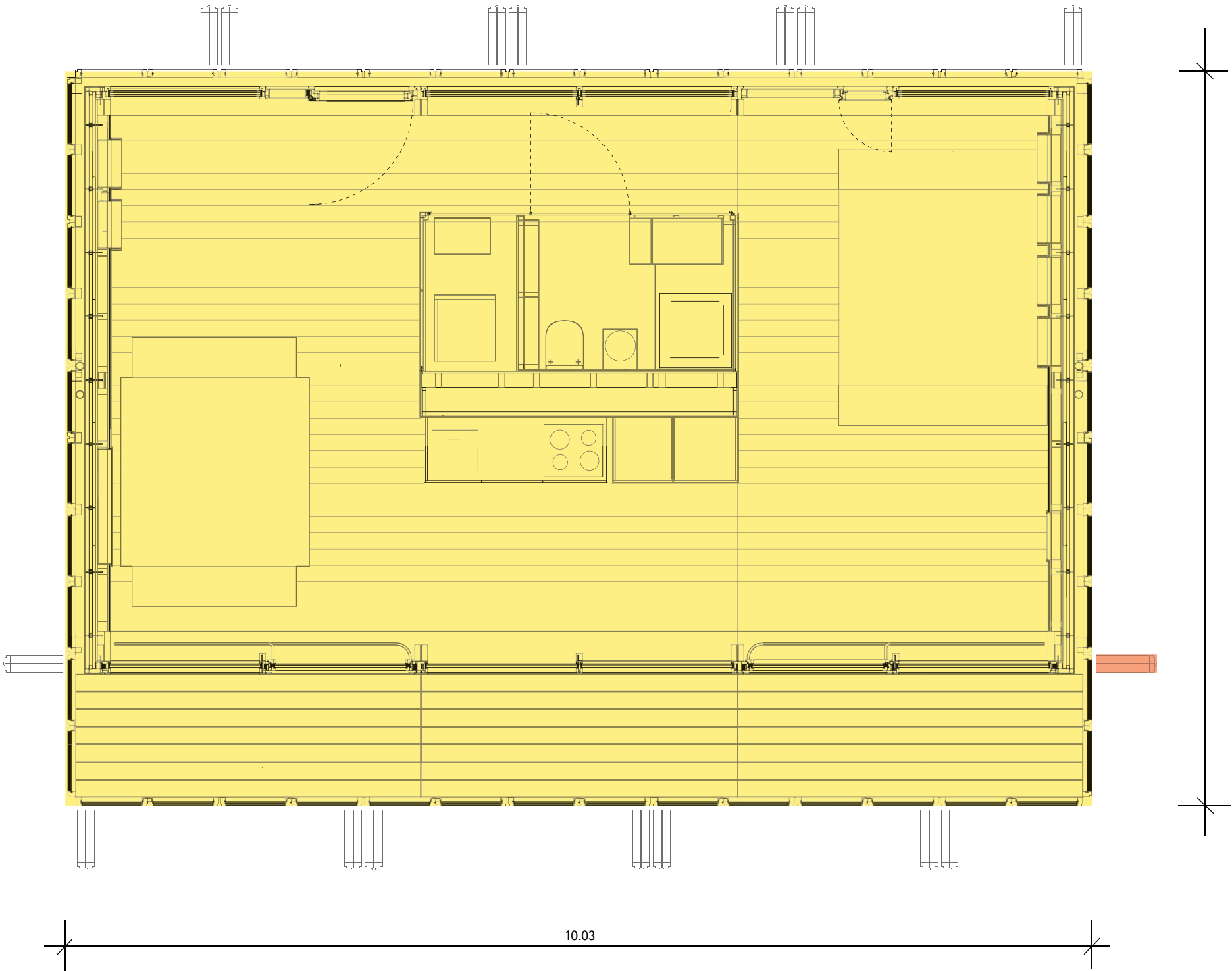
$10.03\text{ m} \times 7.21\text{ m} = 72.31\text{ sqm}$   
 $32.99\text{ ft} \times 23.66\text{ ft} = 778.4\text{ sqft}$

louvers:

In closed condition the louvers do not exceed the footprint of the building.

footprint altogether:

$10.03\text{ m} \times 7.21\text{ m} = 72.31\text{ sqm}$   
 $32.99\text{ ft} \times 23.66\text{ ft} = 778.4\text{ q}$



Floorplan with closed louvers  
Scale 1:50



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INDEX	DESCRIPTION	SCALE	
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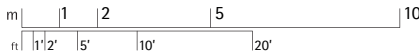
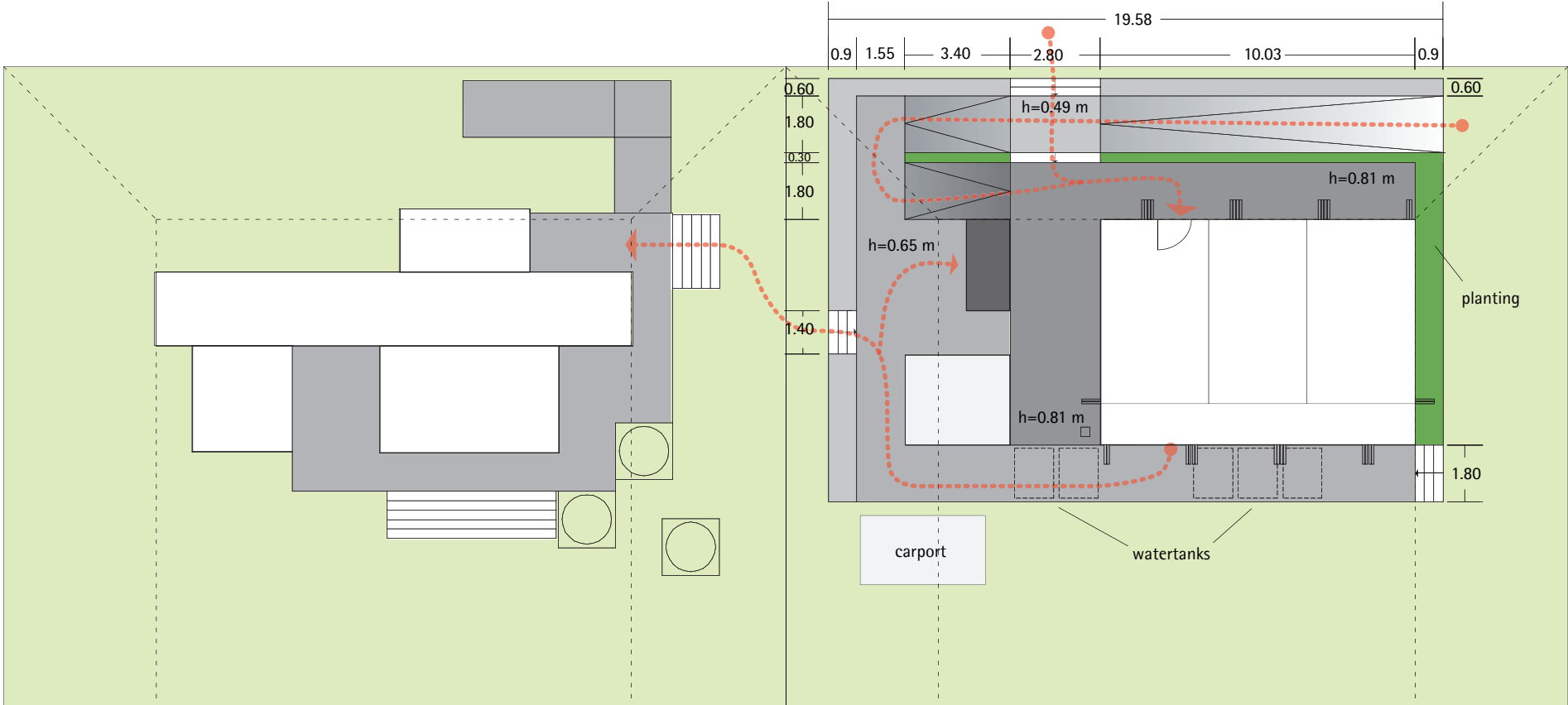
DRAWING NUMBER

G1.2

COMPONENT

Footprint



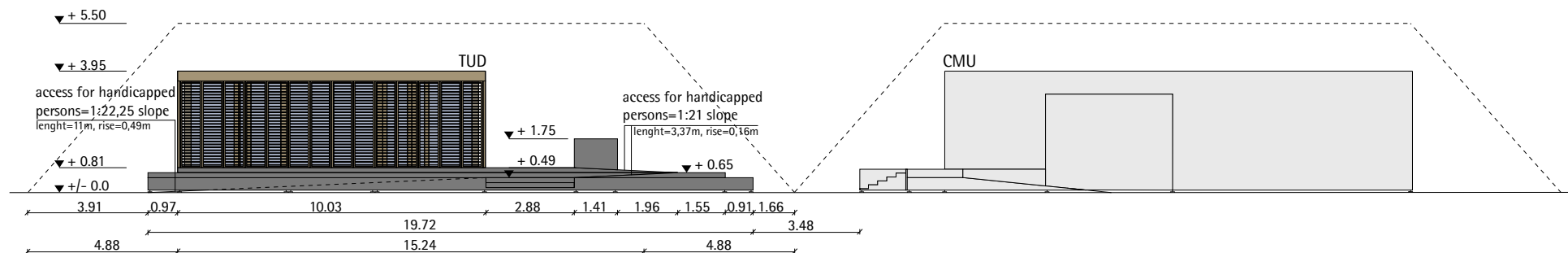


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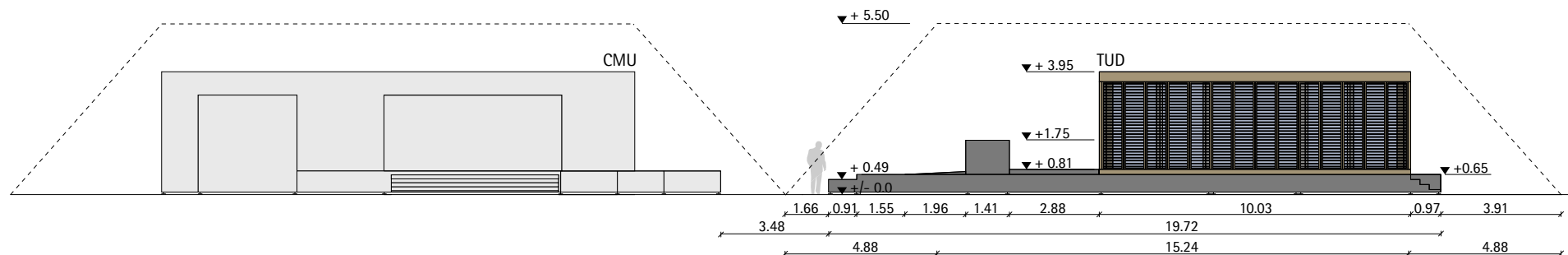
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1	Issued for Deliverable	07/08/07	EZ
INDEX	DESCRIPTION	DATE	NAME
1	Deck Site Plan TUD + CMU		



1 Deck Elevation North  
G2.1 Scale 1:200



2 Deck Elevation South  
G2.1 Scale 1:200

m 0 1 2 5 10  
ft 0' 1' 2' 5' 10'



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2	Elevation South	07/30/07	JL
1	Elevation North	07/30/07	JL
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION		SCALE
1	Elevation North		1:200
2	Elevation South		1:200

DRAWING NUMBER  
**G2.1**  
COMPONENT  
**Deck**

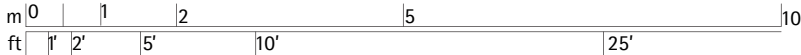


- 1 supported greywater tank beneath deck
- 2 supported freshwater tank beneath deck
- 3 supported booster station beneath deck
- 4 supported podium including batteries and power inverter

1  
G2.2

# Deck 3D Elevation

Scale 1:100



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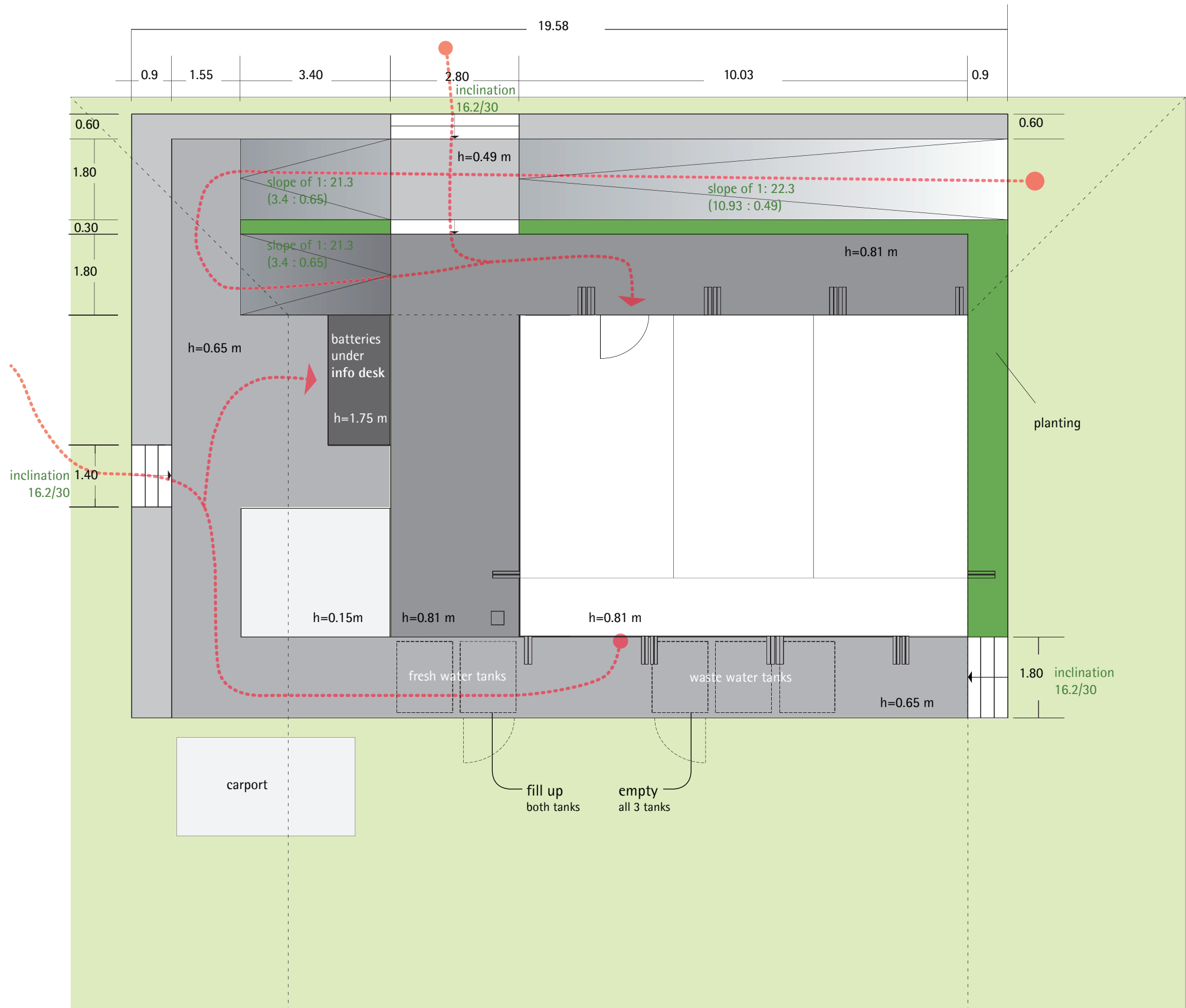
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1	Deck 3D Elevation	07/30/07	JL
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INDEX	DESCRIPTION	SCALE	
1	Deck 3D Elevation	1:100	

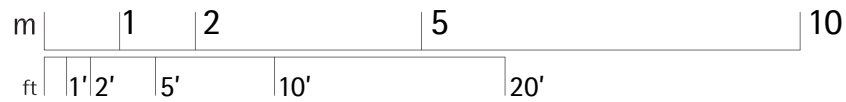
DRAWING NUMBER  
**G2.2**  
COMPONENT  
**Deck**





## Deck Site Plan TUD

Scale 1:100



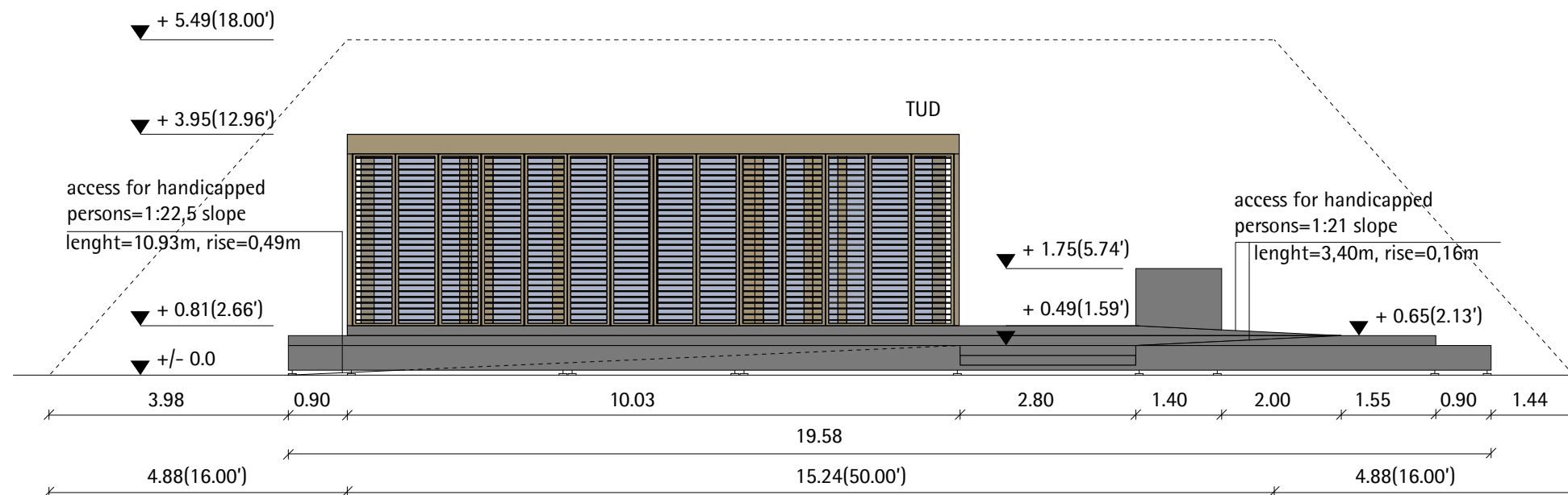
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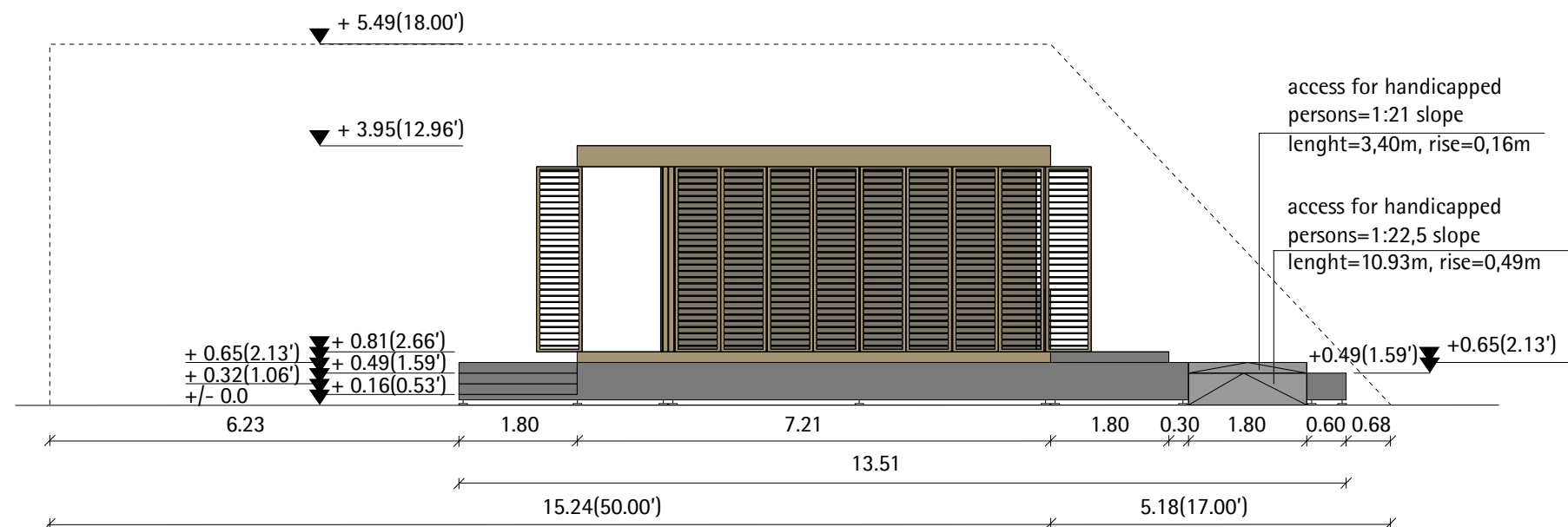
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INDEX	DESCRIPTION	DATE	NAME
1	Deck Site Plan TUD		

DRAWING NUMBER  
**G2.3**  
COMPONENT  
**Deck**

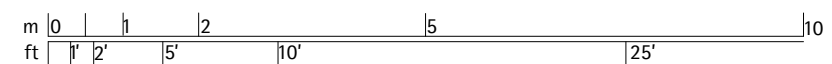


**1**  
G2.4

**Deck Elevation North**  
Scale 1:100



**2 Deck Elevation East**  
G2.4 Scale 1:100



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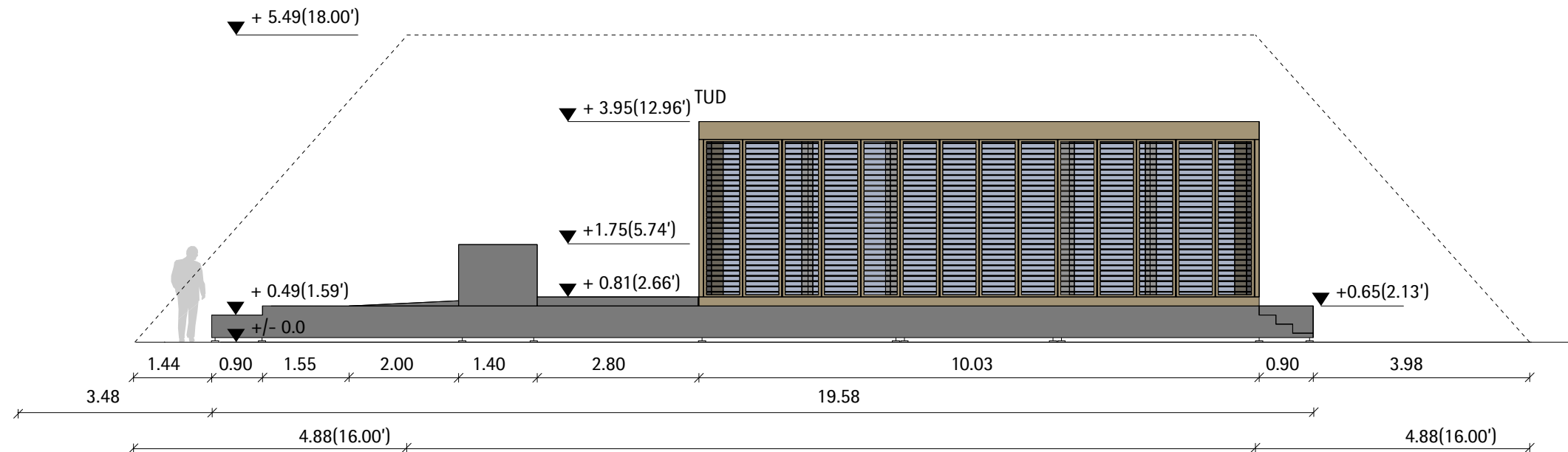
2	Deck Elevation East	07/31/07	JL
1	Deck Elevation North	07/31/07	JL
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION		SCALE
1	Deck Elevation North		1:100
2	Deck Elevation East		1:100

DRAWING NUMBER

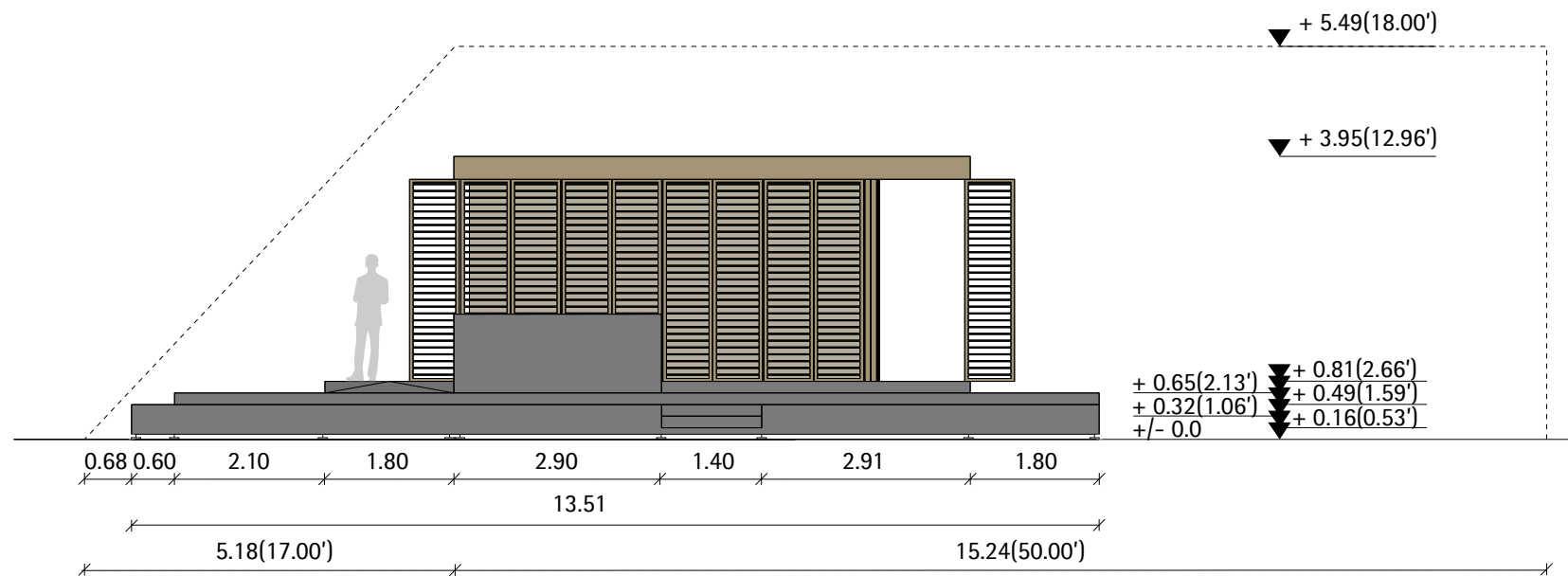
## G2.4

## COMPONENT

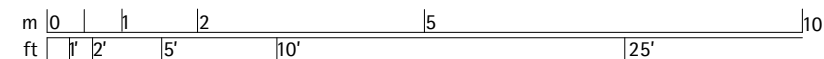
## Deck



**1**  
G2.5  
**Deck Elevation South**  
Scale 1:100



**2**  
G2.5  
**Deck Elevation West**  
Scale 1:100



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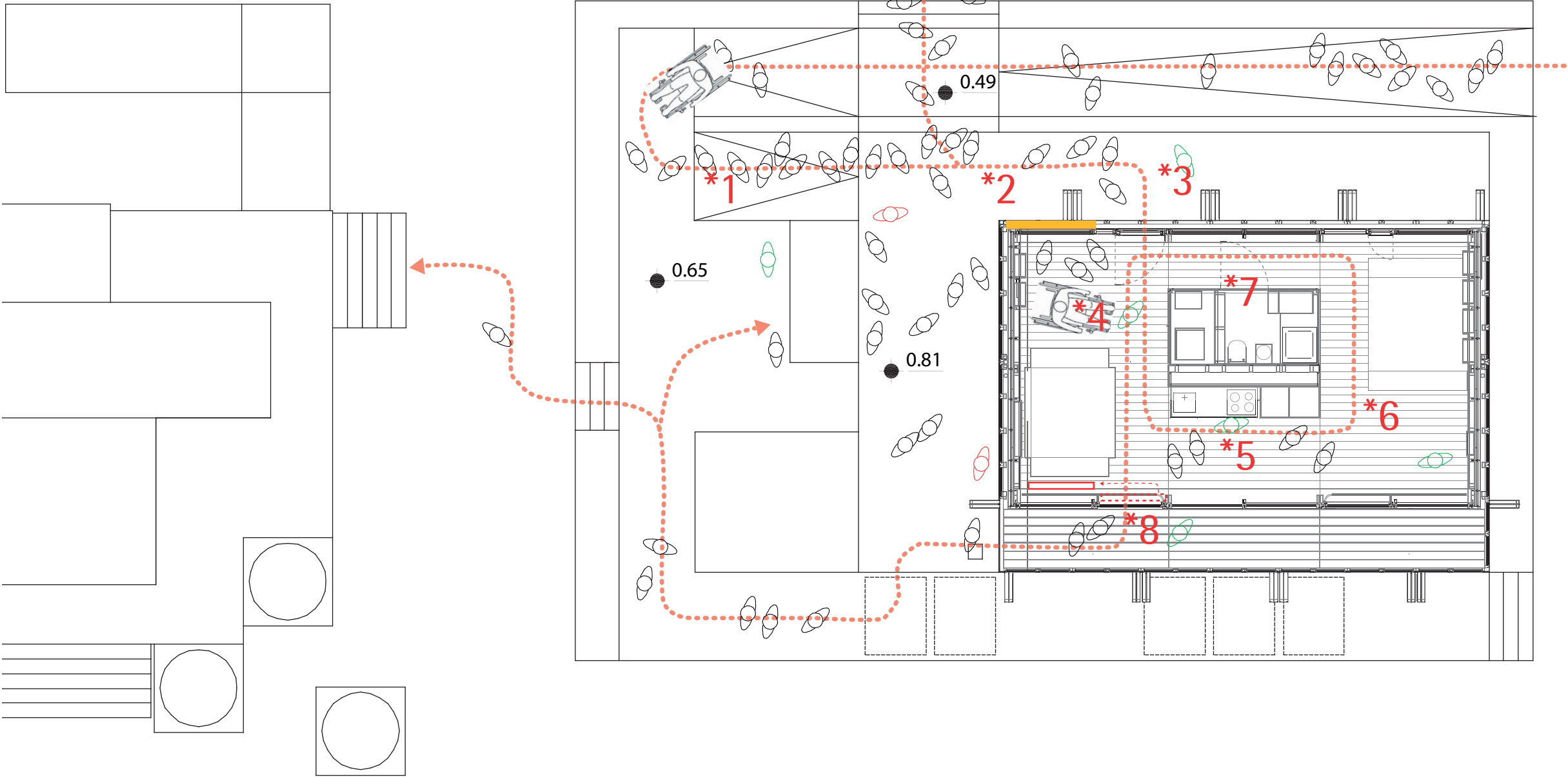
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1	Deck Elevation South	07/31/07	JL
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Deck Elevation South	1:100	
2	Deck Elevation West	1:100	

DRAWING NUMBER  
**G2.5**  
  
COMPONENT  
**Deck**



- \* 1\_line
- \* 2\_welcome, group formation, info movie while waiting
- \* 3\_concept: the house adapts itself to the seasons
- \* 4\_flexibility of dwelling and demonstration of technical devices
- \* 5\_kitchen
- \* 6\_bed and demonstration of technical devices
- \* 7\_flexible bathroom
- \* 8\_good bye, take a brochure
- \_wall of sponsors and video display
- \_visitors
- \_team members - organizers
- \_team members - tour guides

After entering the deck, visitor groups will be formed at point \*2. An information panel will help the tour guide explain the house's features. We will have five rotating main tour guides to lead visitors through the house. Every main tour guide will lead a group of about five people, making stops and explaining aspects of the house at different locations. At point \*8 a brochure rack will supply contact info.



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1	Issued for Deliverable	07/08/07	EZ
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION		SCALE
1	Accessibility		1:100

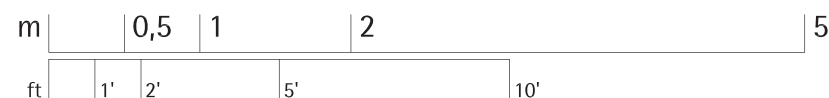
DRAWING NUMBER

G3.0

COMPONENT

Accessibility

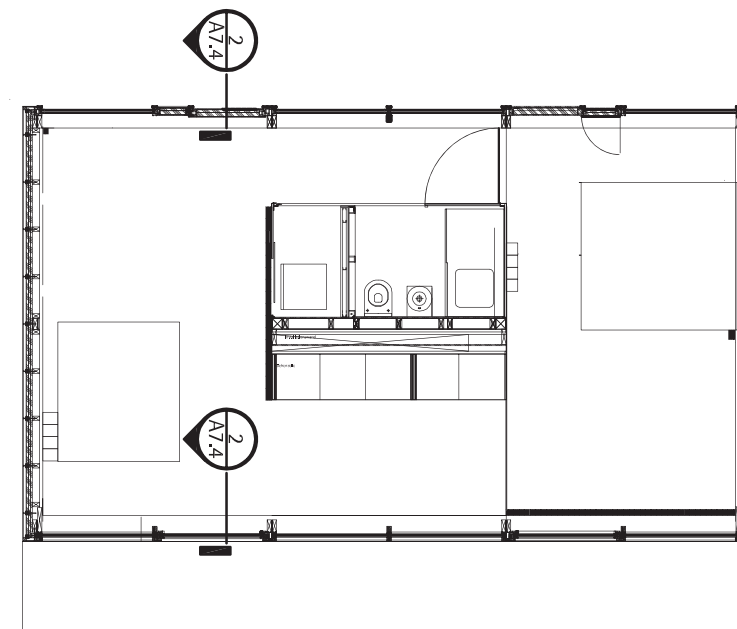
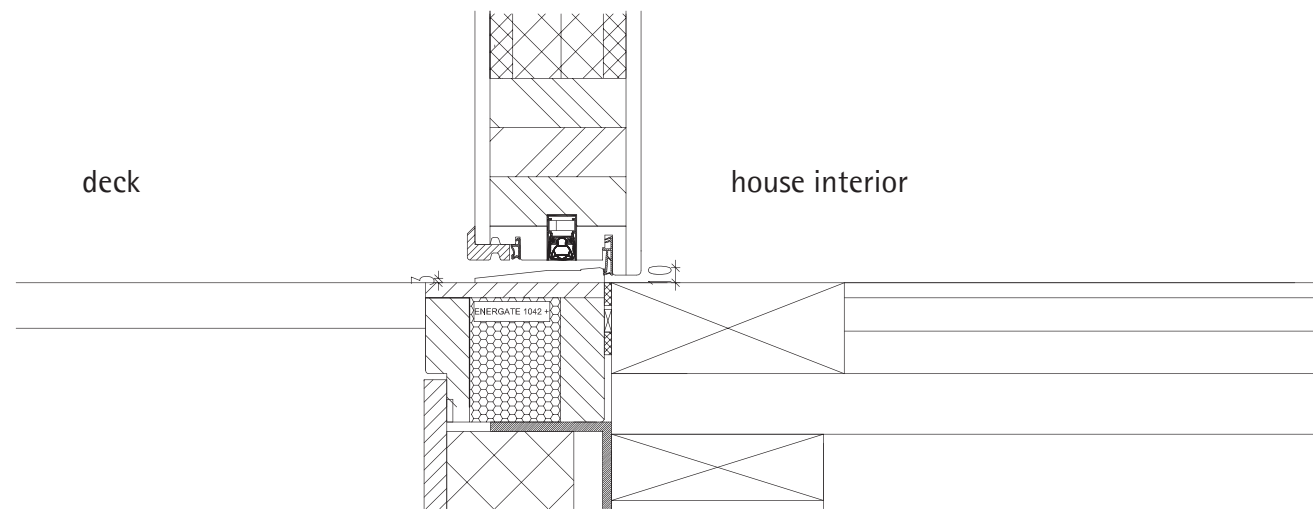
-  \_visitors
-  \_team members - organizers
-  \_team members - tour guides

[illegible]

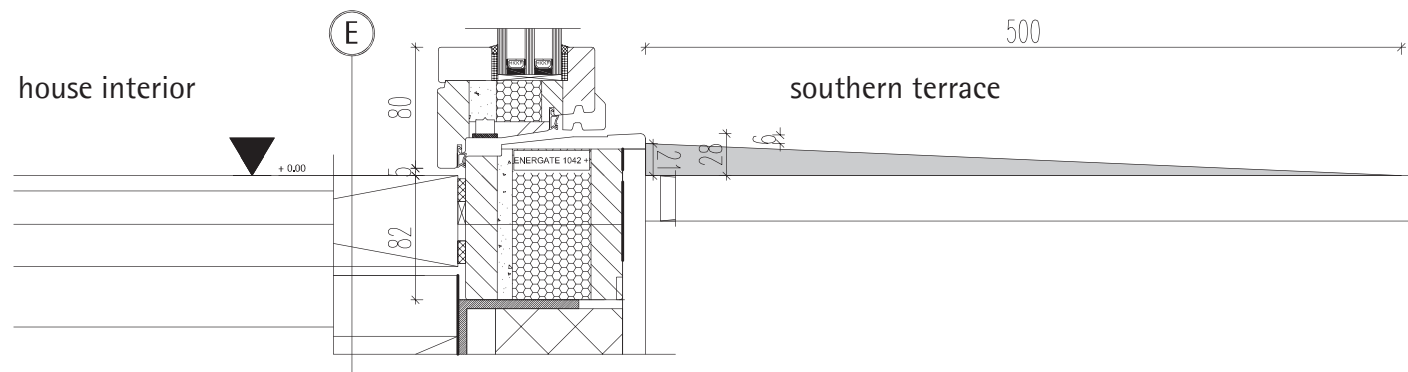
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DRAWING NUMBER	G3.1
COMPONENT	Accessibility

Entrance: barrier-free



section of southern glass door- exit for tour groups





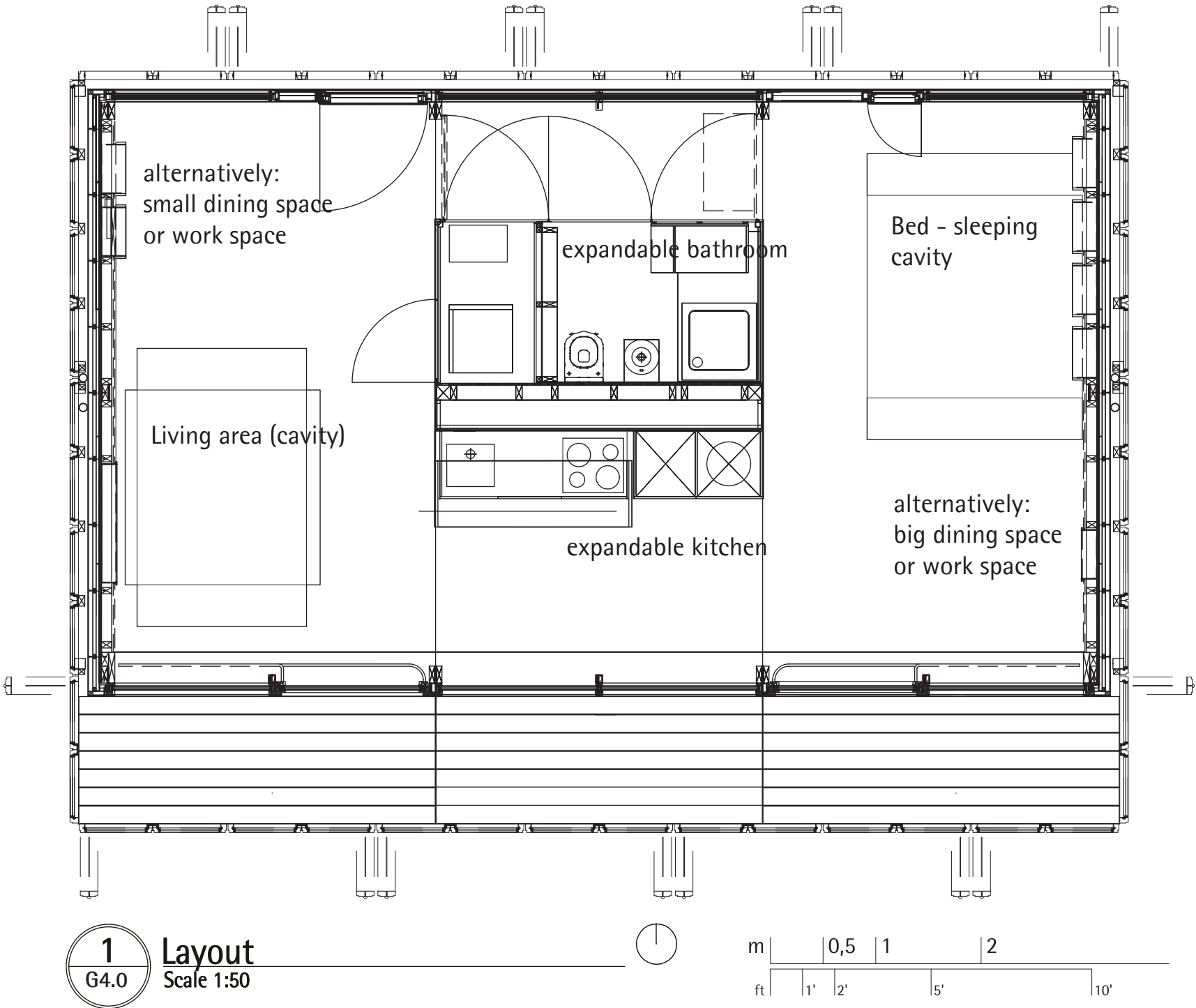
Furnishing

One main aspect of our design is achiving ultimate flexibility in our house interior. We achieve that through the two floor cavities in the south west corner and in the northeast corner of the house. These dents accommodate the living space for relaxation and the bed.

The rest of the furniture - the dining table and chairs as well as the desk - can be put up alternatively in the northwest or southeast corner.

If a large free space is desirable, the table and the desk can be stored in a drawer included in the living cavity, and all the dents can be closed.

The core of our house is very flexible as well. It includes the kitchen and the bathroom, both of them can be expanded. When they are in their retracted position, they can still be used to a certain extent.



beam oak  
industrial parquet oak



industrial parquet oak  
acrylic glass wall



opening wing  
industrial parquet oak



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2	Issued for Deliverable	08/02/07	SP
1	Issued for Deliverable	03/01/07	HD
INDEX	DESCRIPTION	DATE	NAME
1	Materials / Interior	1:50	

DRAWING NUMBER  
**G4.0**

COMPONENT  
Materials  
Interior

Materials

In our house we mainly use natural materials. As their life cycles differ they are connected removably and can be easily changed. The bearing construction is oak wood. So is the industrial parquet for the floors. Core, kitchen area and dents will be finished with translucent white acrylic glass.

Apart from this light satiniced surfaces the core will be arranged with warm oak wooden furniture and highlighted by a light green wall section showing the TUD logo.



countertop with induction hob  
brushed steel

In order to achieve a warm atmosphere in the living dent, we will use carpet for the dent's flooring. For the covers of the upholstery we are thinking of linen cloth in several warm colors. Light-coloured linen curtains cover the windows from the inside to create intimacy.



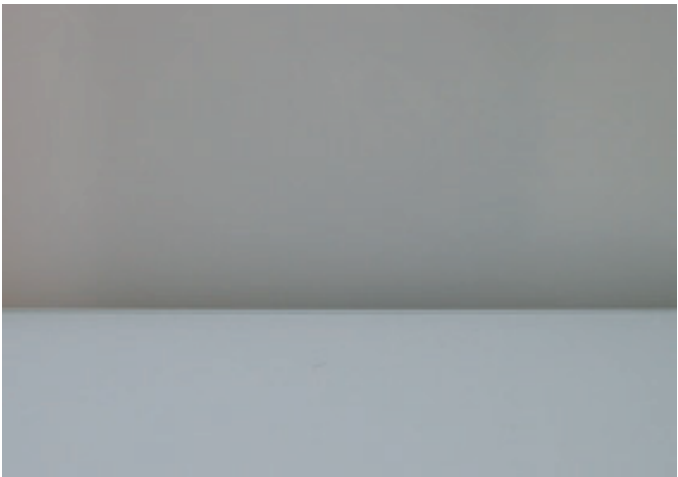
shower  
acrylic glass with TUD logo



kitchen surface  
acrylic glass / brushed steel



living dent  
carpet / oak wooden construction



shower base  
glass / acrylic glass



faucet

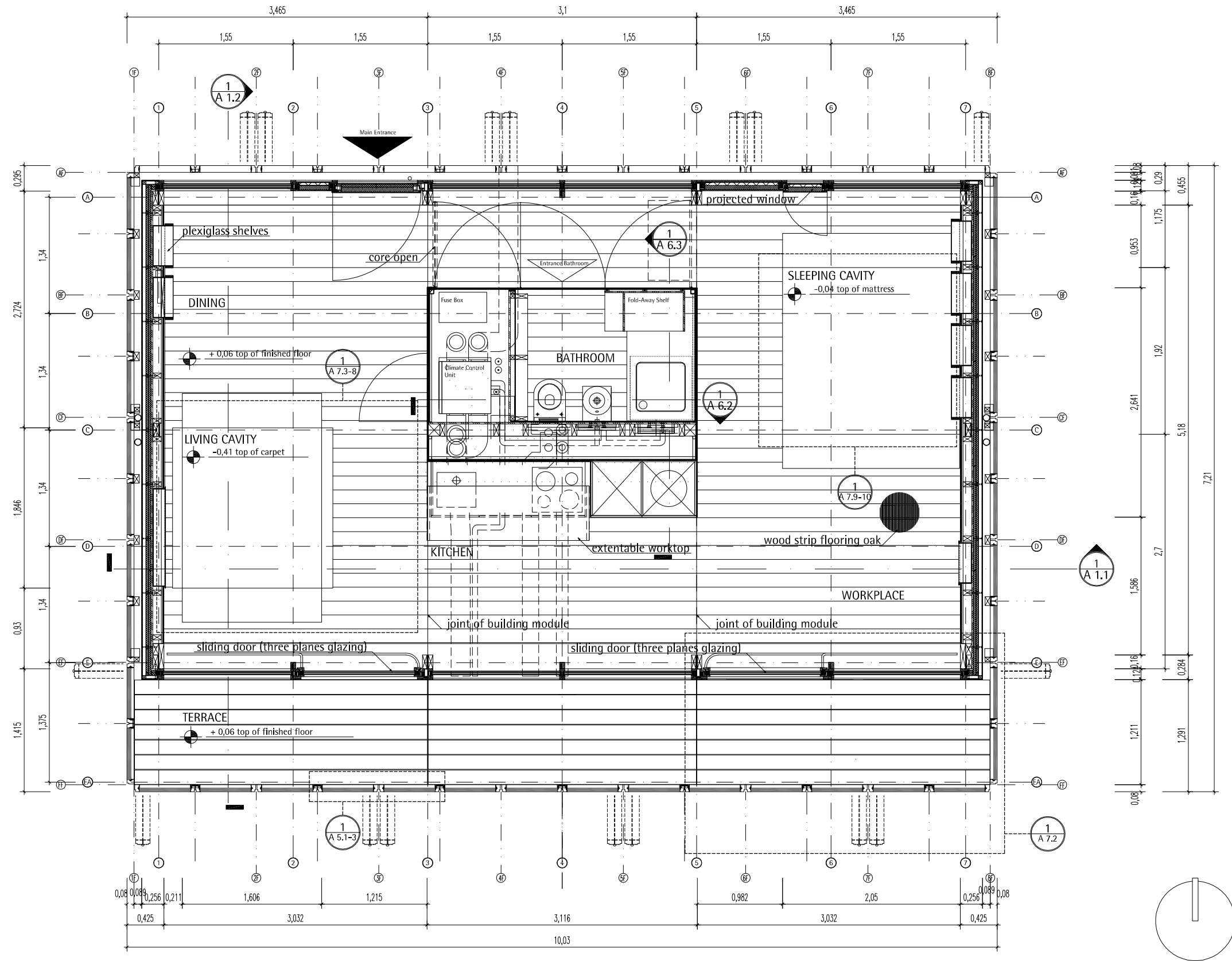


switcher

The kitchen area uses brushed steel for water and cooking usage. A flexible oak wooden countertop offers additional working space

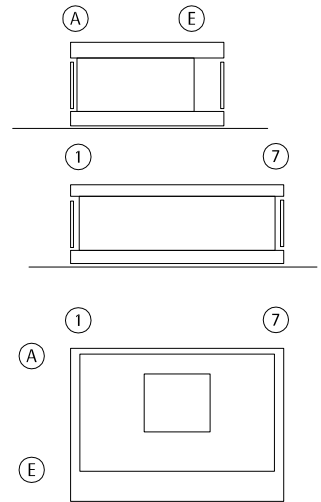
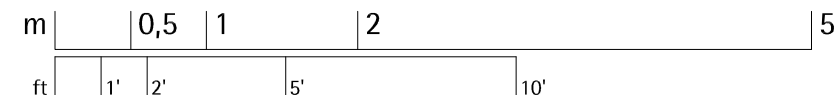


living dent  
coloured linen upholstery material



**1**  
A 1.0

**Floor Plan**  
Scale 1:50



**TECHNISCHE UNIVERSITÄT DARMSTADT**

**SOLAR DECATHLON 07**

**TEAM DEUTSCHLAND**

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El-Lissitzky-Straße 1  
64287 Darmstadt

www.solardecathlon.de  
fg@ee.tu-darmstadt.de

	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

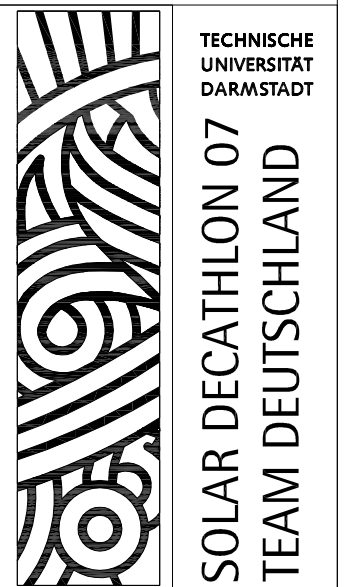
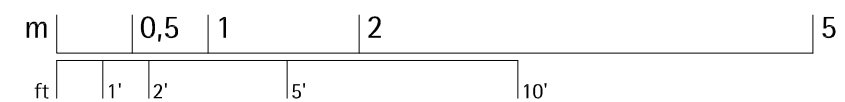
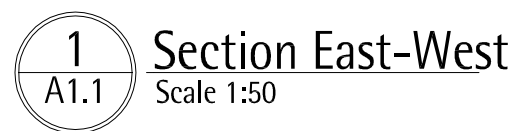
INDEX	DESCRIPTION	DATE	NAME
2	issued for deliverables	07.07.07	GS
1	issued for deliverables	02.03.07	GS
1	Floor Plan		M 1:50






DRAWING NUMBER

**A 1.0**

COMPONENT

**General**



	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

2	issued for deliverables	07.07.07	
1	issued for deliverables	02.03.07	GS
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Floor Plan	M 1:50	

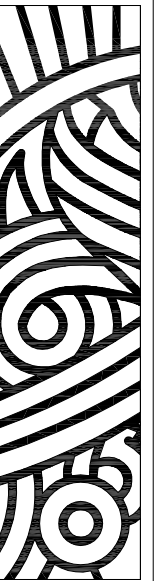
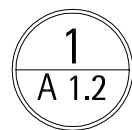
DRAWING NUMBER

# A 1.1






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## General



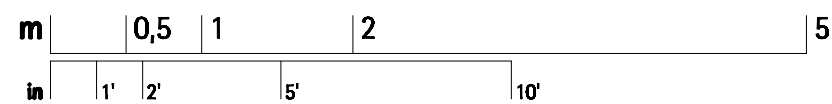
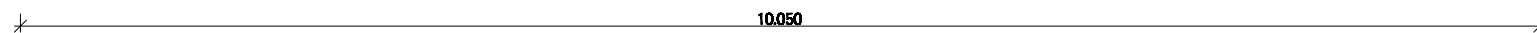


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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

DRAWING NUMBER	<b>A 1.2</b>
COMPONENT	<b>General</b>

**Elevation North**  
Scale 1:50



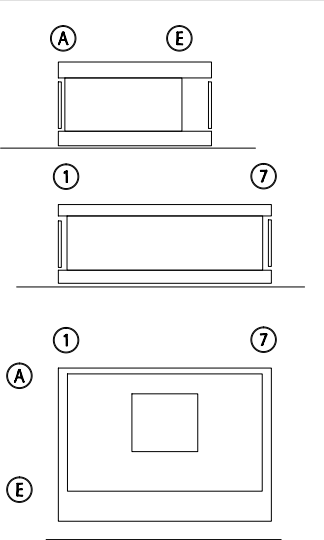
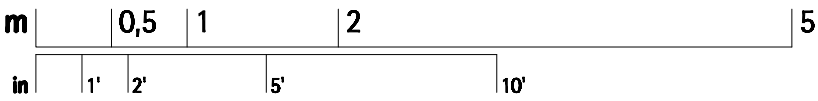
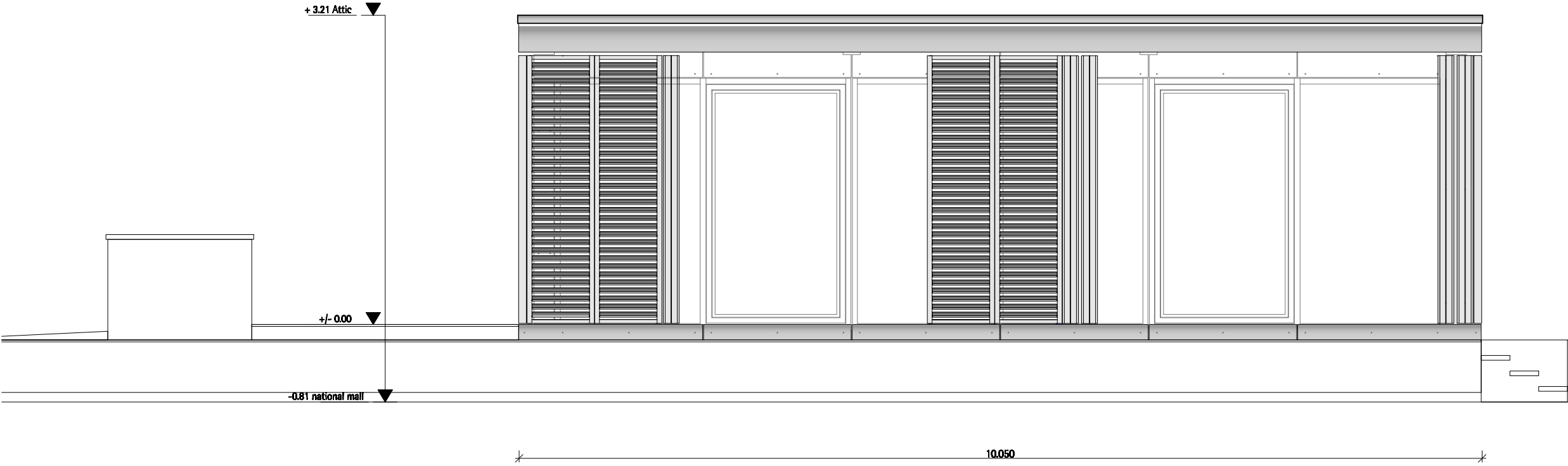
1	Elevation North	07/07/07	FS
REF	SOUTH	N/E	N/E
REF	SOUTH		SIDE
1	Elevation north	1:	

DATE/TIME	
	<b>A 1.3</b>
QUIET	<b>Elevation</b>



1  
A 1.4

Elevation South  
Scale 1:50



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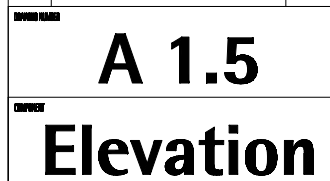
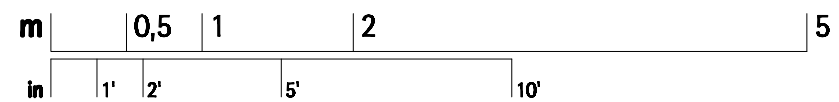
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64287 Darmstadt  
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[solardecathlon@ce.tu-darmstadt.de](mailto:solardecathlon@ce.tu-darmstadt.de)

1	Elevation south	07/07/07	FS
NOX	DESCRIPTION	DATE	NAME
NOX	DESCRIPTION	SCALE	
1	Elevation south	1:50	

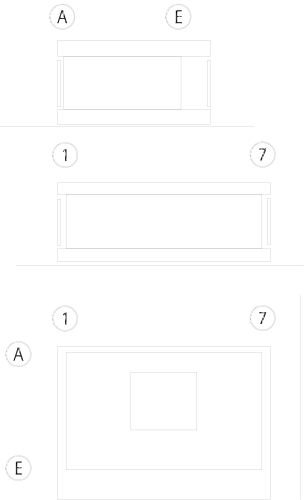
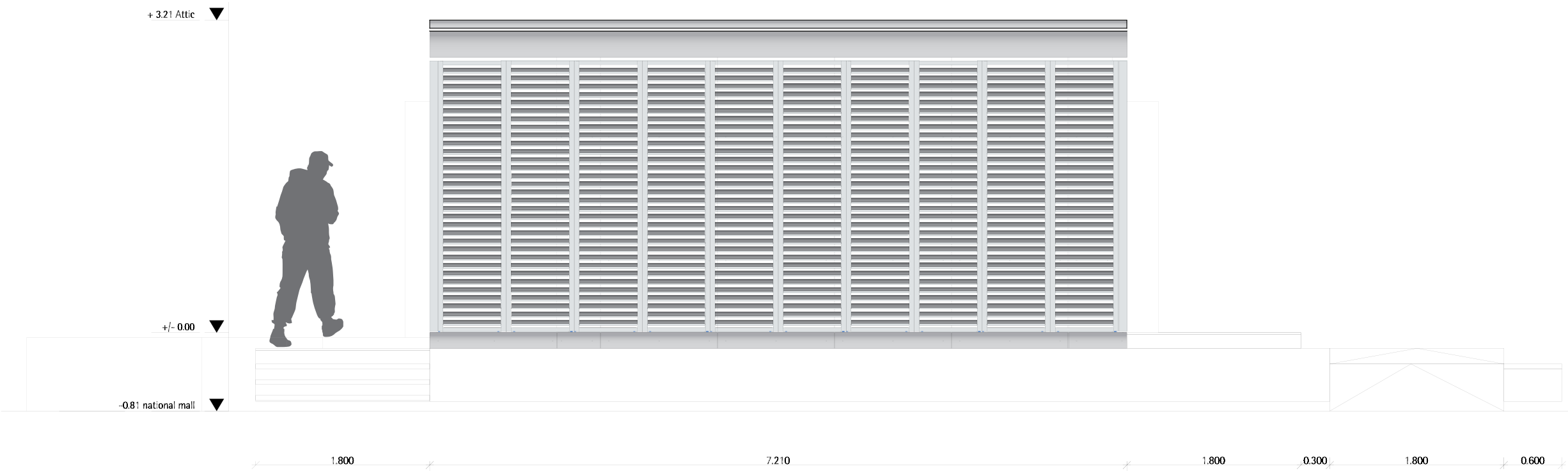
NOX  
**A 1.4**  
DESCRIPTION  
**Elevation**

**Elevation west**  
Scale 1:50



1  
A 1.6

Elevation east  
Scale 1:50



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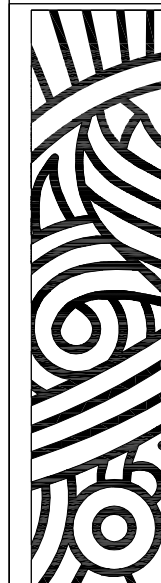
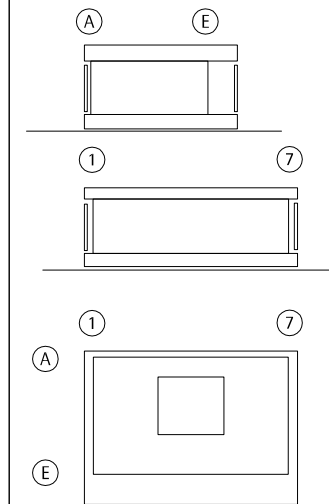
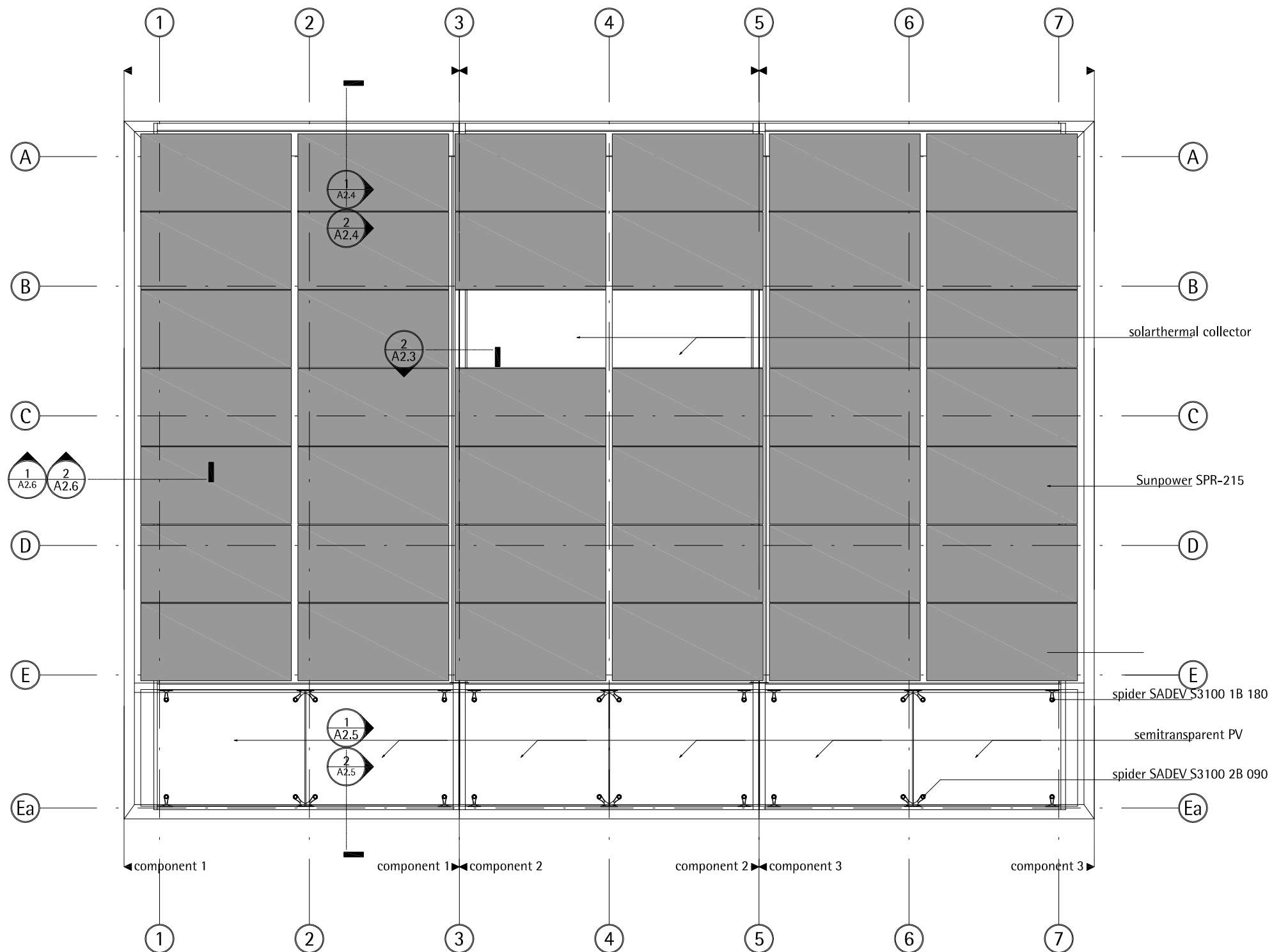
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NO.	DESCRIPTION	DATE	VALUE
1	Elevation East	07/07/07	FS
NO.	DESCRIPTION	SCALE	
1	Elevation East	1:50	

DRAWING NUMBER

A 1.6  
Elevation



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- wood board, structural
- wood board, interior
- metal building material
- insulation
- joint sealant

2	Issued for Deliverable	08/07/07	sche chl
1	Issued for Deliverable	03/02/07	sche chl
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Top View	1 :50	

DRAWING NUMBER

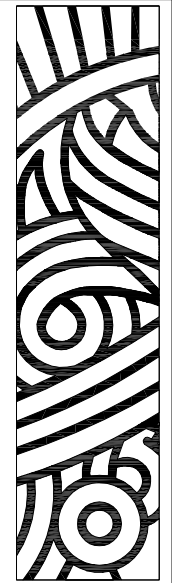
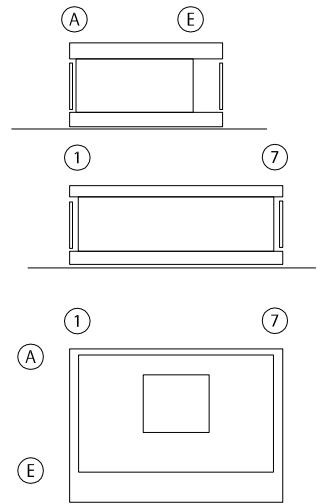
A2.1

COMPONENT






Roof

1  
A2.1  
Top view  
Scale 1:50

mm | 50 | 100 | 250 | 500  
in | 1" | 2" | 6" | 1'



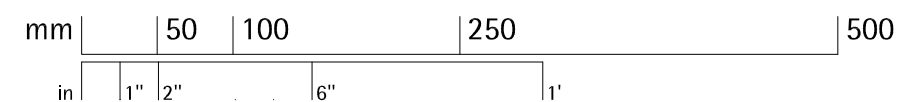
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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

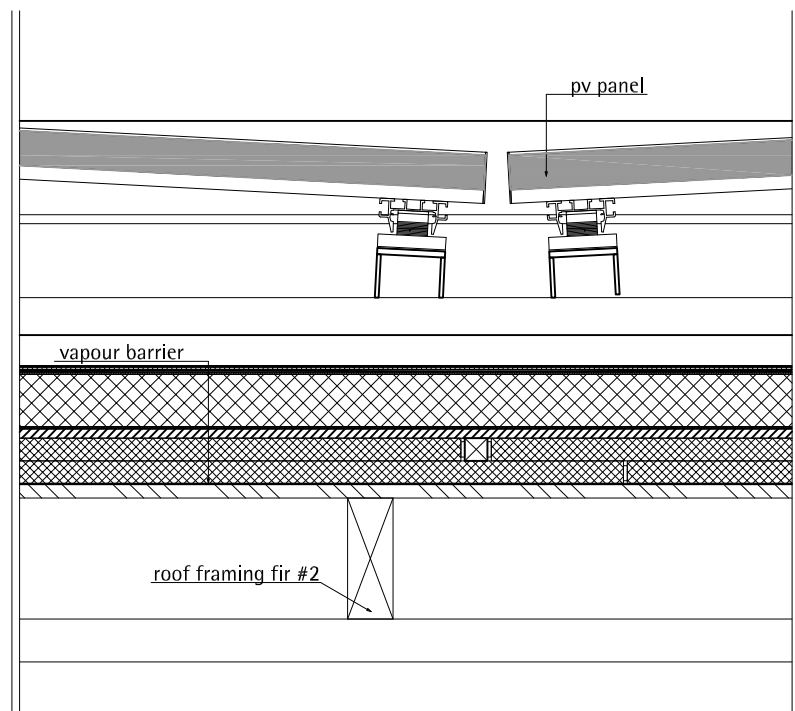
[illegible]

INDEX	DESCRIPTION	SCALE
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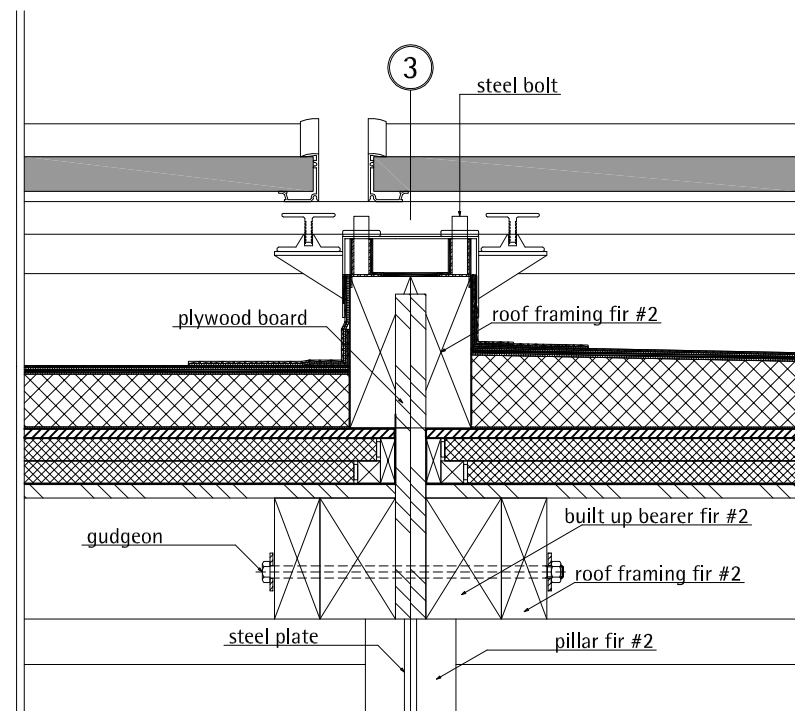

## Roof



B



C



0.050 0.046



0.012



0.0090



0.012



0.060

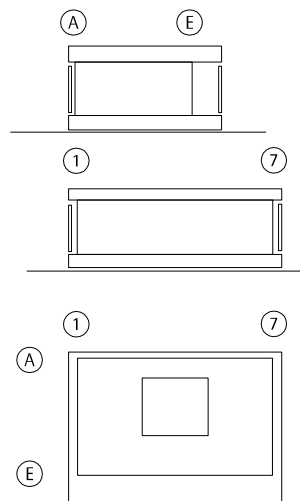


0.160

pv-panel  
square welded steeltube

waterproof sheeting  
sloping insulation  
fibrous composite  
vacuum insulation panel  
oriented strand board

airspace



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- wood board, structural
- wood board, interior
- metal building material
- insulation
- joint sealant


2	Issued for Deliverable	08/07/07	sche chl
1	Issued for Deliverable	03/02/07	sche chl

INDEX	DESCRIPTION	DATE	NAME
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INDEX	DESCRIPTION	SCALE
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1	Component joint	1 :10
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DRAWING NUMBER

A2.3

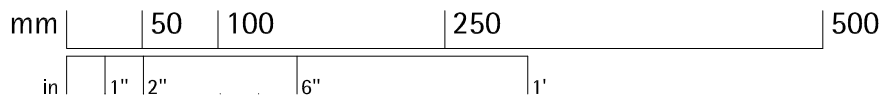
COMPONENT

Roof

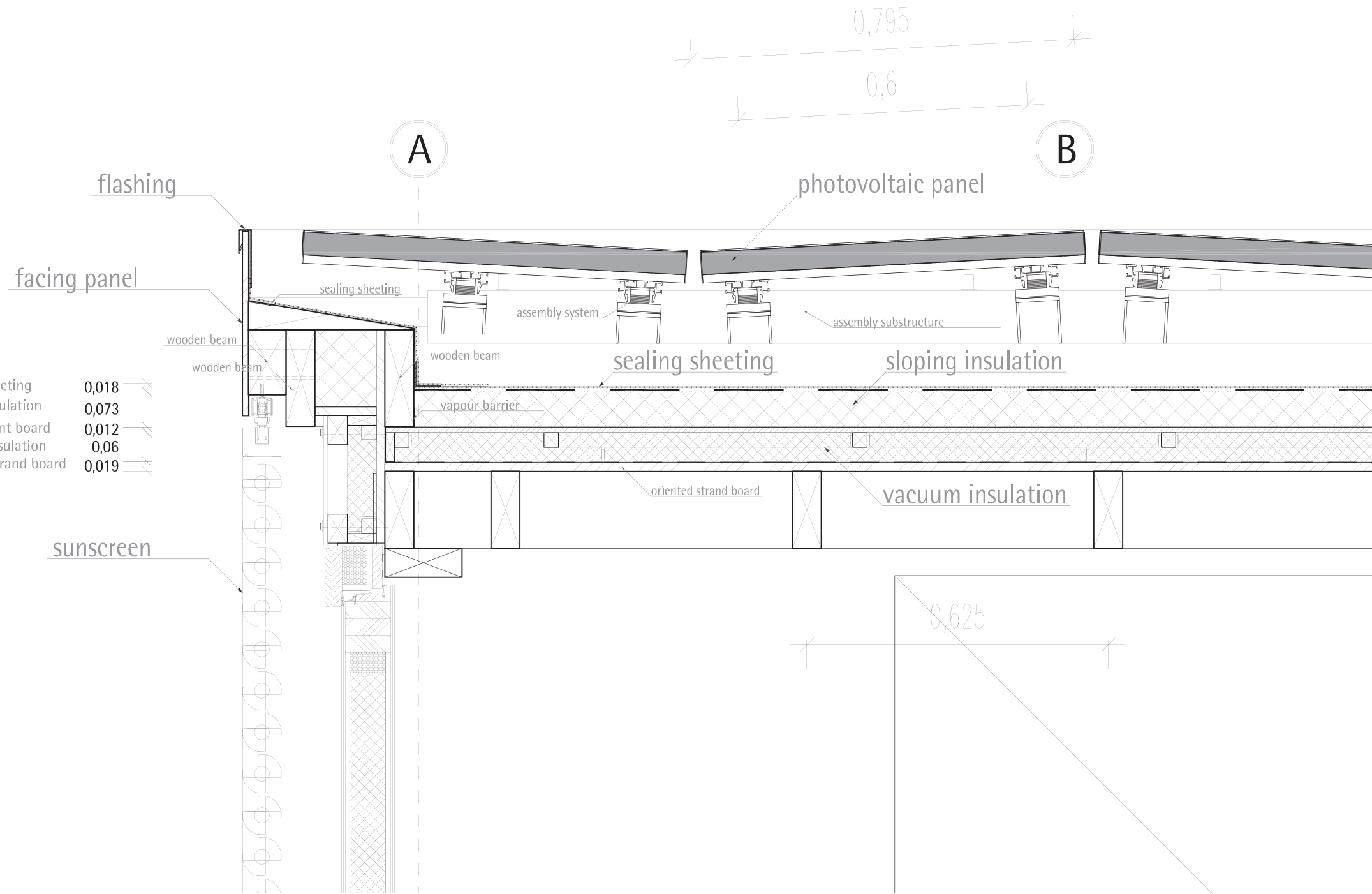
C



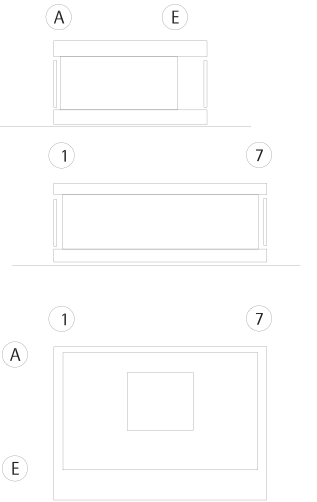
Component joint  
Scale 1:10







**A2.4**  
1  
**Detail Attic North**  
Scale 1:10



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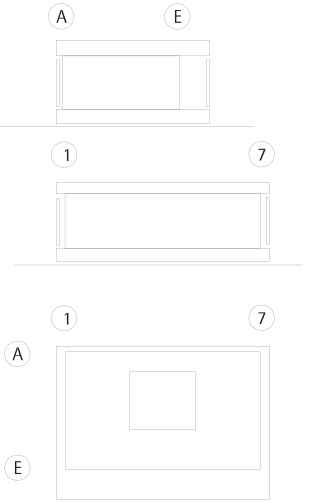
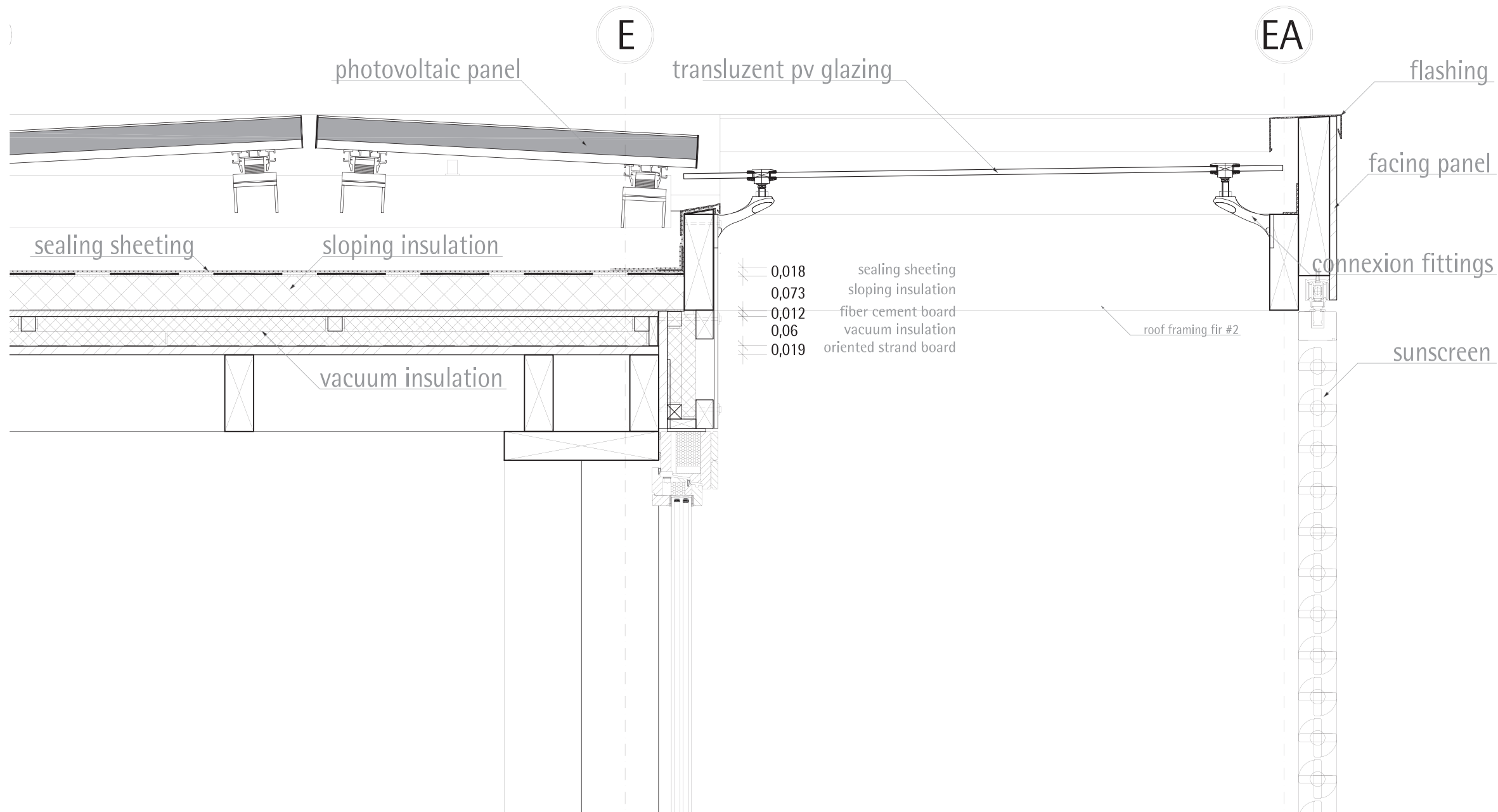
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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

</			

DRAWING NUMBER  
**A2.4**  
COMPONENT  
**Roof**



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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

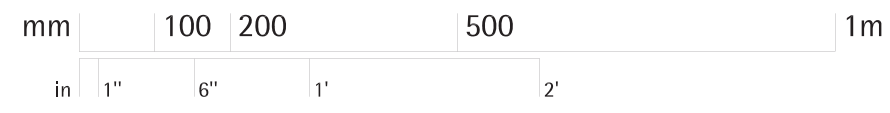

1	attic south	07/01/08	ch sche
INDEX	DESCRIPTION	DATE	NAME

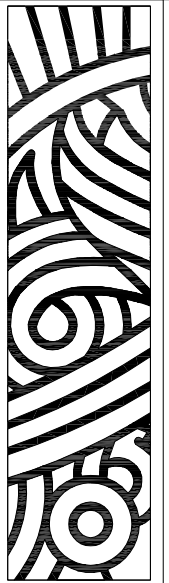
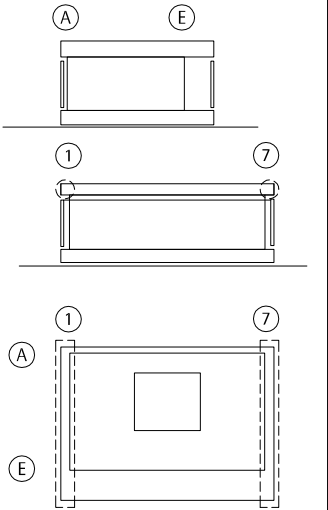
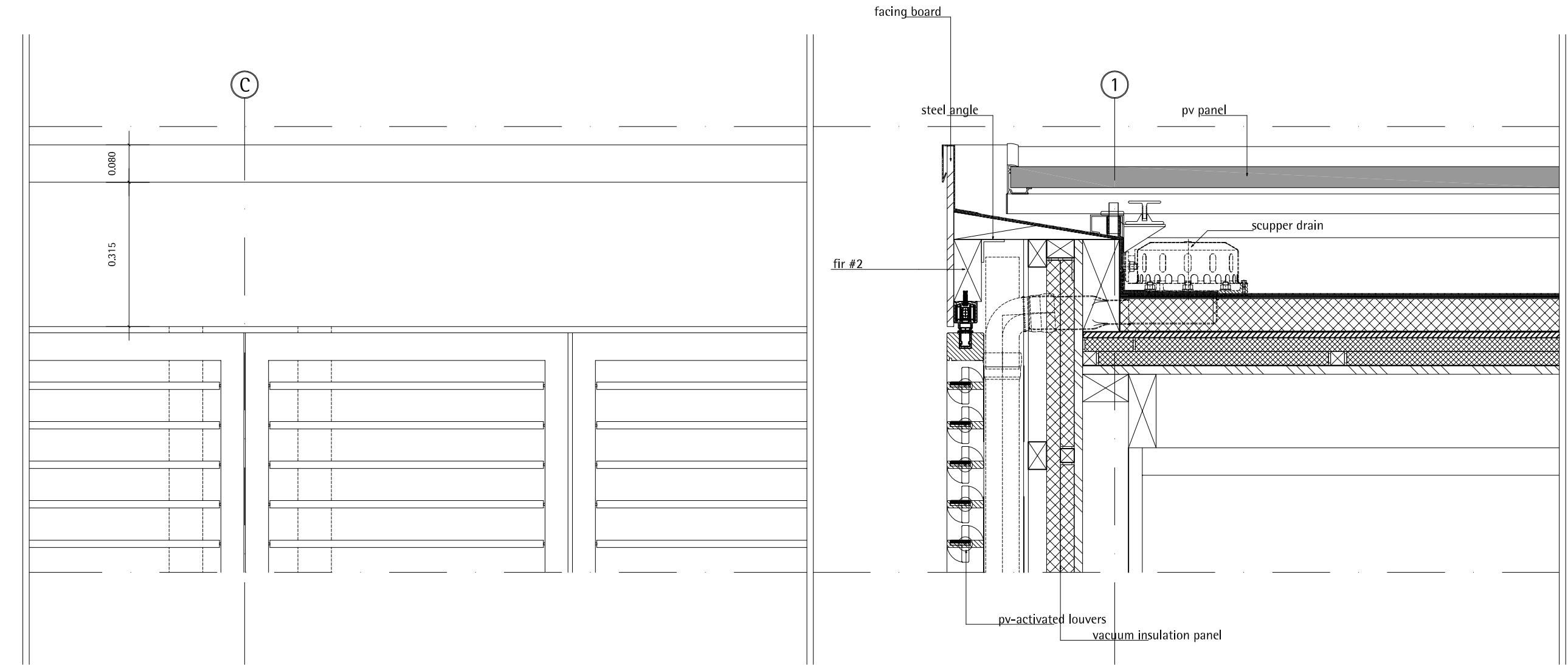
INDEX	DESCRIPTION	SCALE
1	SECTION BB	1:10


DRAWING NUMBER  
**A2.5**

COMPONENT  
**Roof**

**A2.5**  
1  
**Detail Attic South**  
Scale 1:10





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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


2	Issued for Deliverable	08/07/07	sche chl
1	Issued for Deliverable	03/02/07	sche chl

INDEX	DESCRIPTION	DATE	NAME
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INDEX	DESCRIPTION	SCALE
1	Attic east/west	1 : 10

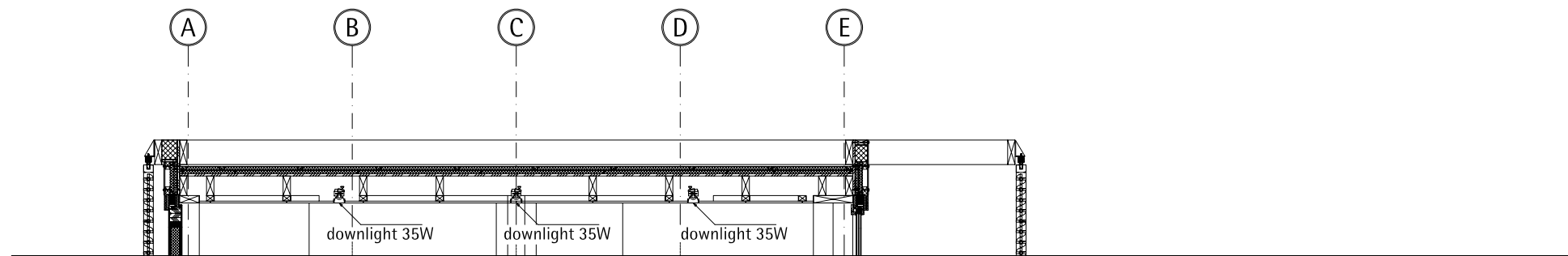
DRAWING NUMBER  
**A2.6**

COMPONENT  
**Roof**

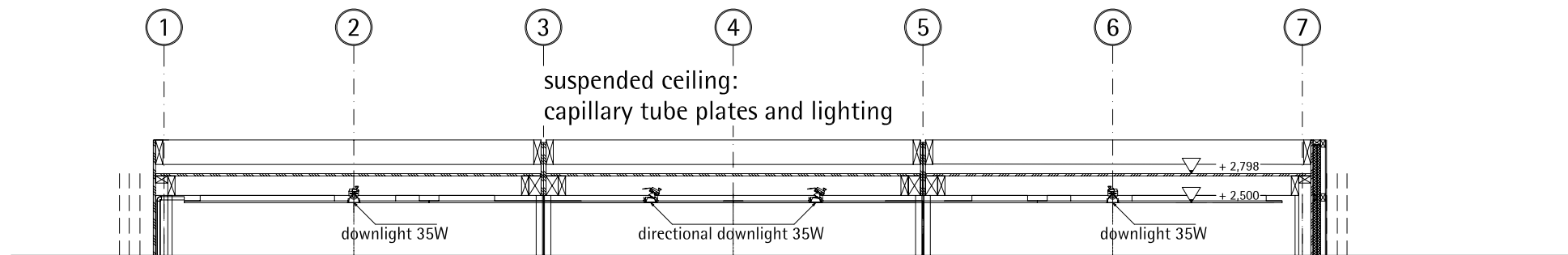
**1**  
A2.6  
Attic east / west  
Scale 1:10

mm 0 50 100 250 500  
in 1" 2" 6" 1"

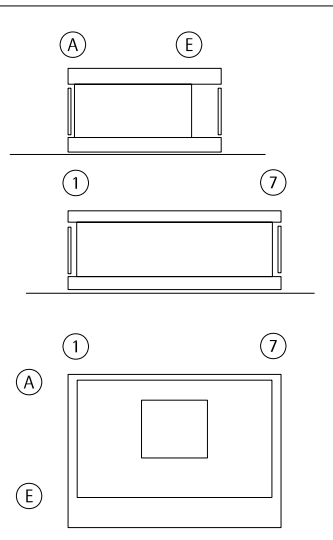
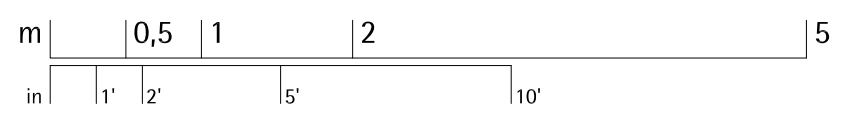
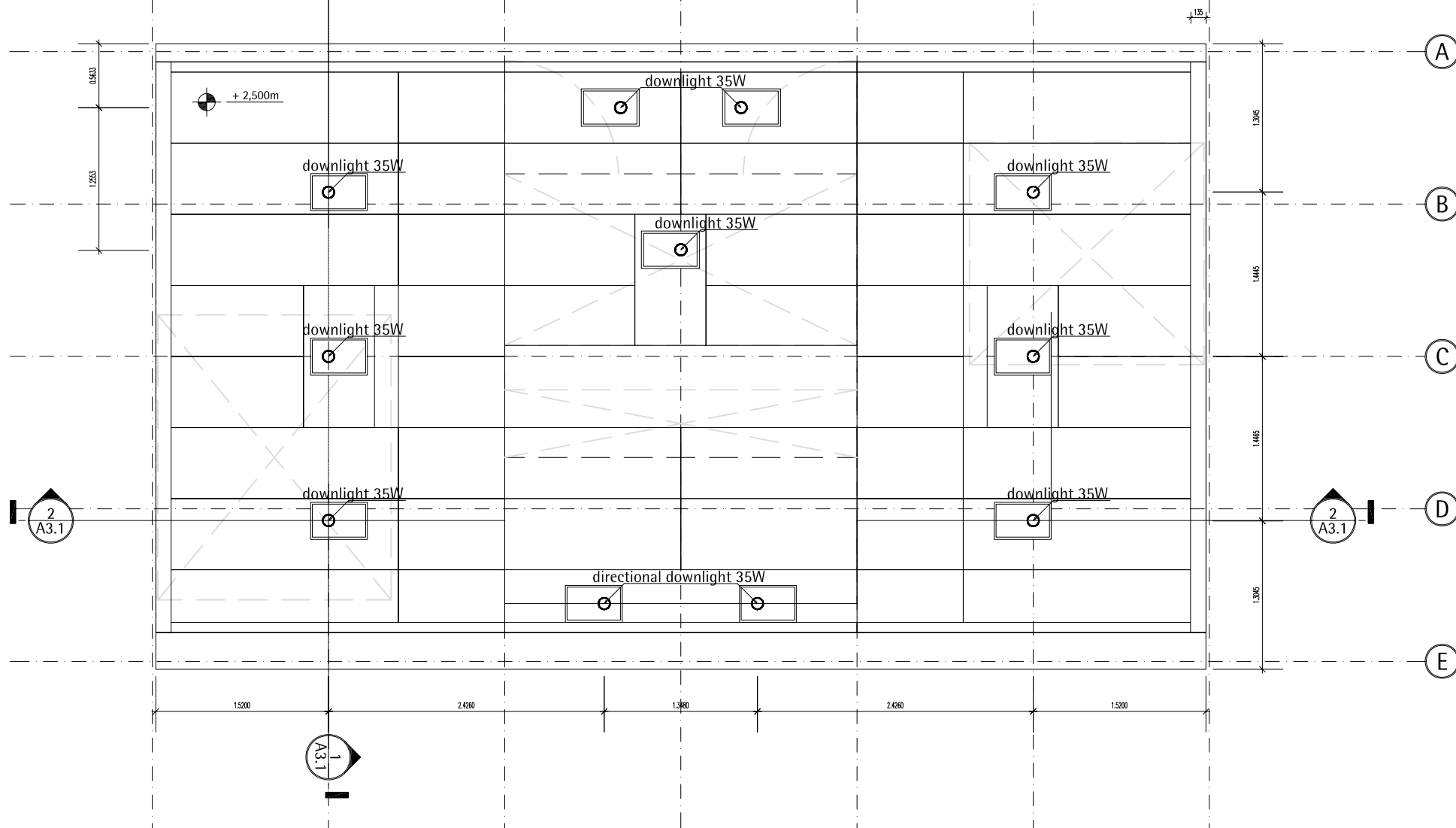
1 sectional drawing ceiling  
Scale 1:50




2 sectional drawing ceiling  
Scale 1:50



3 ceiling plan lighting  
Scale 1:50





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- wood board, structural
- wood board, interior
- metal building material
- insulation
- joint sealant


1	lighting ceiling	070728	SW
NO.	DESCRIPTION	DATE	NAME
NO.	DESCRIPTION	SCALE	
1	sectional drawing ceiling	1:50	
2	sectional drawing ceiling	1:50	
3	ceiling plan lighting	1:50	

DRAWING NUMBER

A3.1

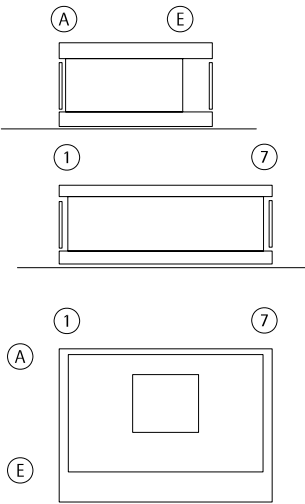
COMPONENT

lighting ceiling



1  
A3.2

rendering lighting



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wood board, structural  
wood board, interior  
metal building material  
insulation  
joint sealant


2	renderings lighting	070728	SW
INDEX	DESCRIPTION	DATE	NAME

INDEX	DESCRIPTION	SCENE
1	rendering lighting	
2	rendering lighting	
3	rendering lighting	

DRAWING NUMBER  
**A3.2**  
COMPONENT  
**lighting**



2  
A3.2

rendering lighting

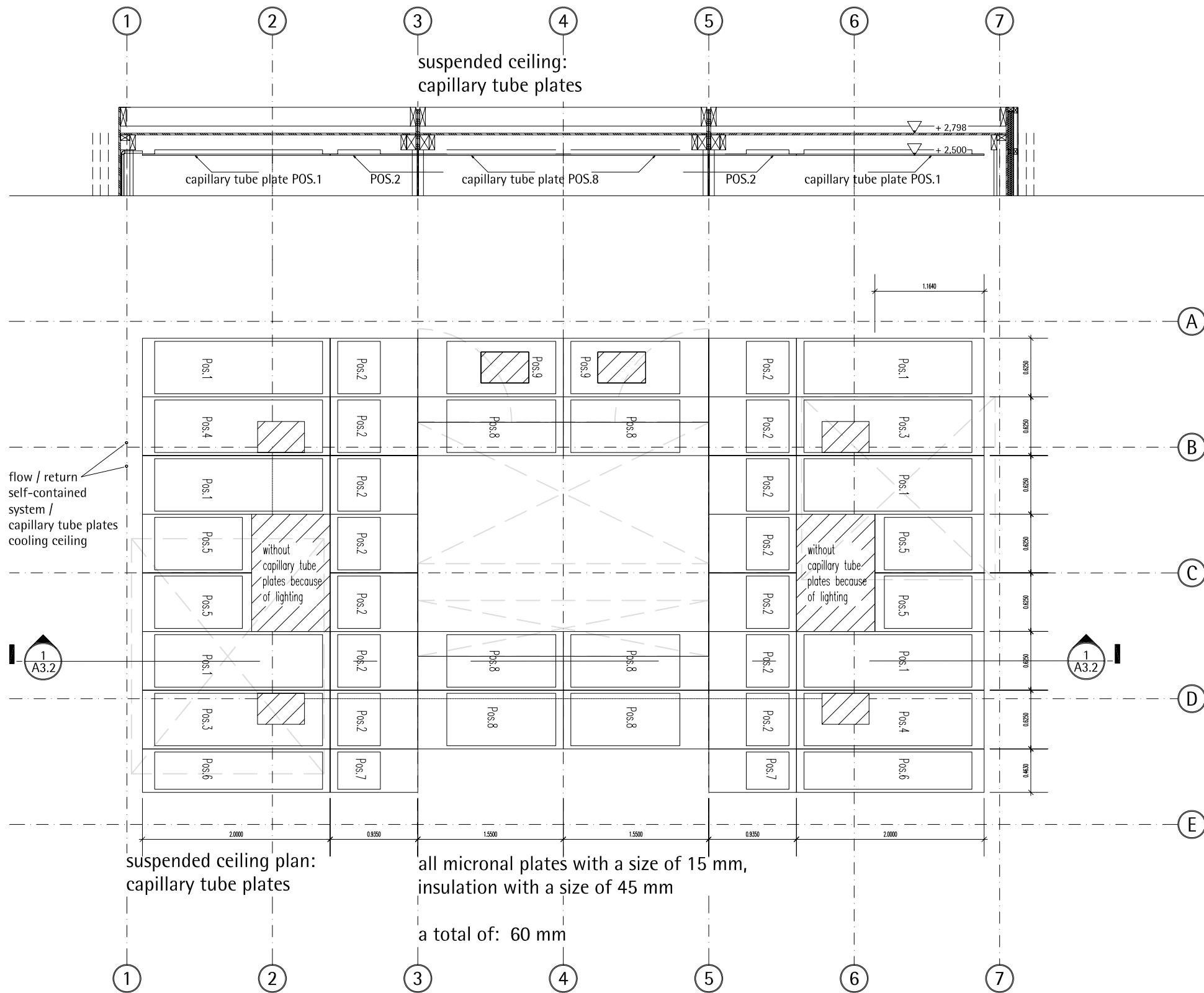


3  
A3.2

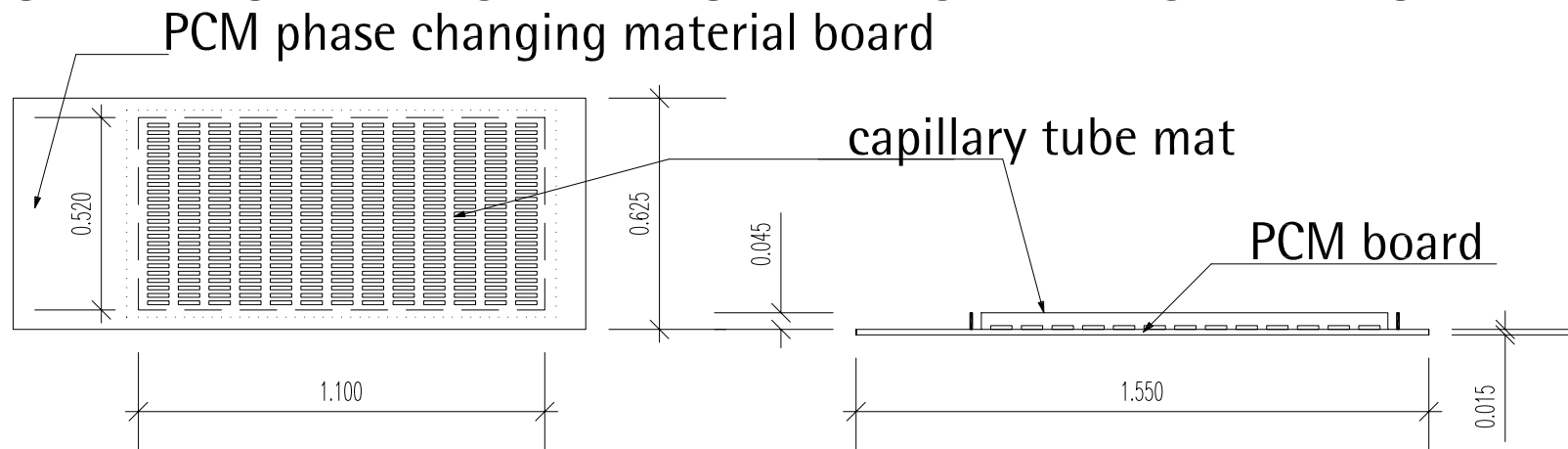
rendering lighting

1 sectional drawing ceiling  
A3.3 Scale 1:50

2 ceiling plan  
A3.3 Scale 1:50



3 capillary tube plate detail  
A3.3 Scale 1:20



A

E

1

7

A

E

1

7

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[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

NO.	DESCRIPTION	DATE	NAME
3	ceiling	070728	SW
NO.	DESCRIPTION	SCALE	
1	sectional drawing ceiling	1:50	
2	ceiling plan	1:50	
3	capillary tube plate detail	1:20	

DRAWING NUMBER

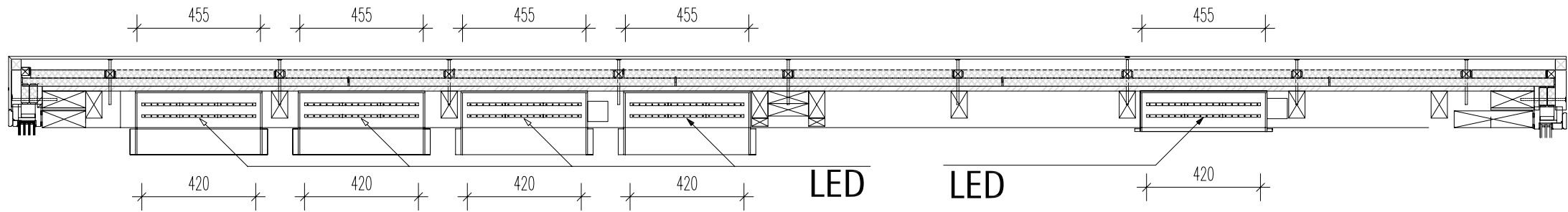
A3.3

COMPONENT

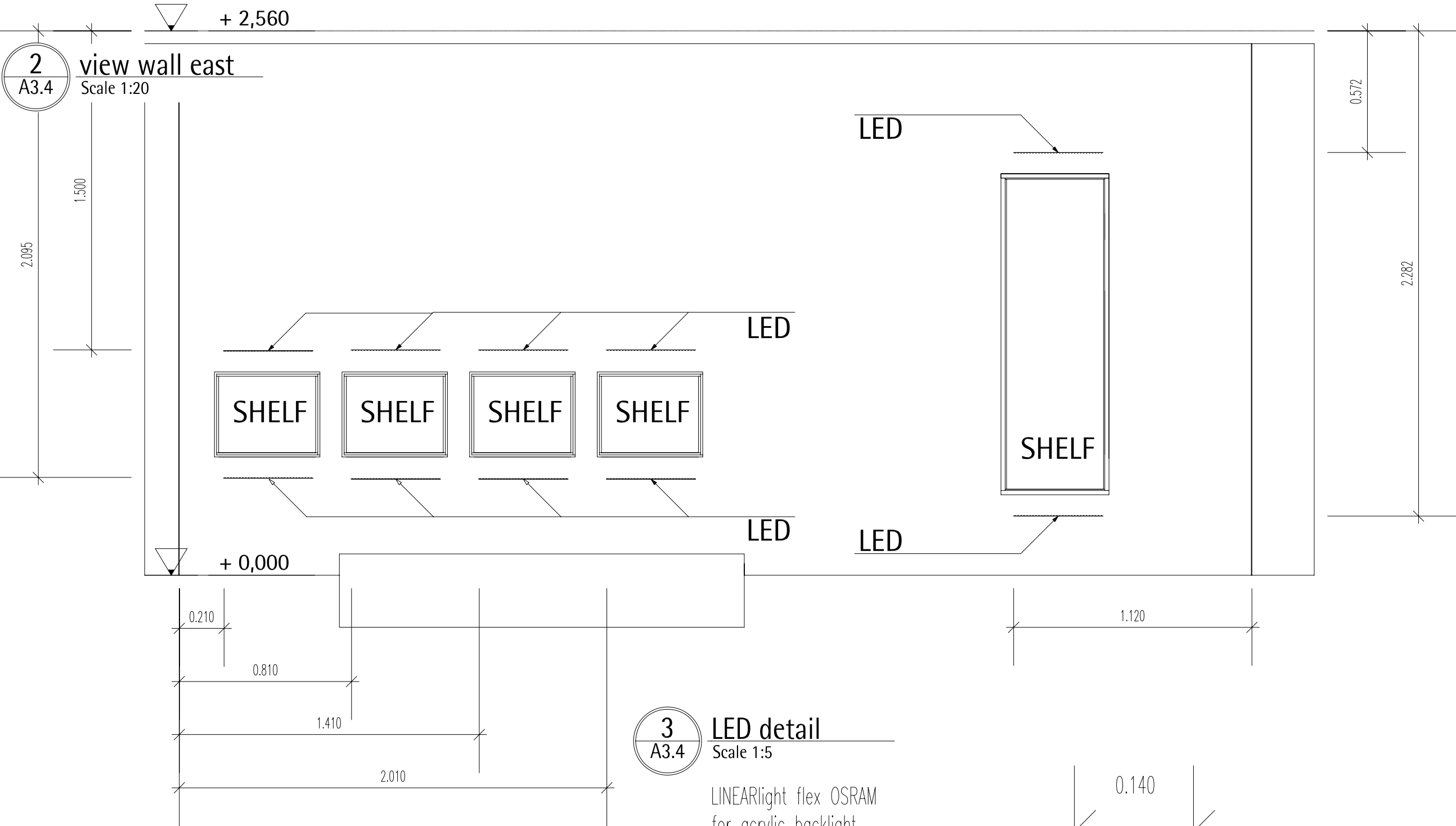
ceiling



sectional drawing wall east  
Scale 1:20

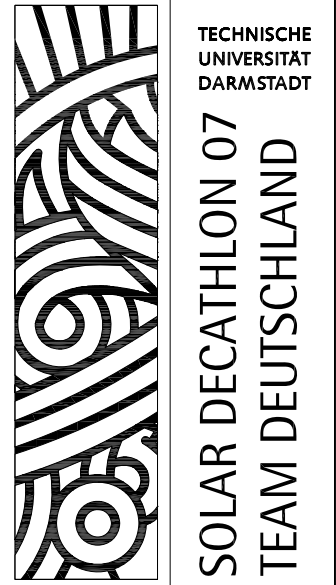
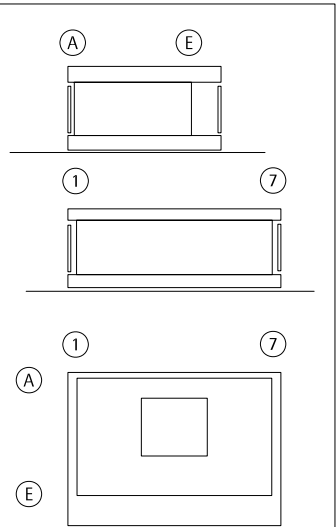
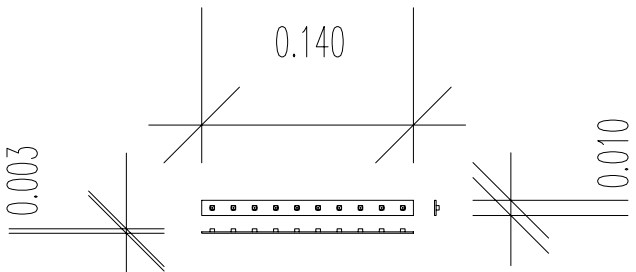


view wall east  
Scale 1:20



LED detail  
Scale 1:5

LINEARlight flex OSRAM  
for acrylic backlight  
smallest unit: 140mm  
10 LEDs = 1,44W, 24V, 0,06A



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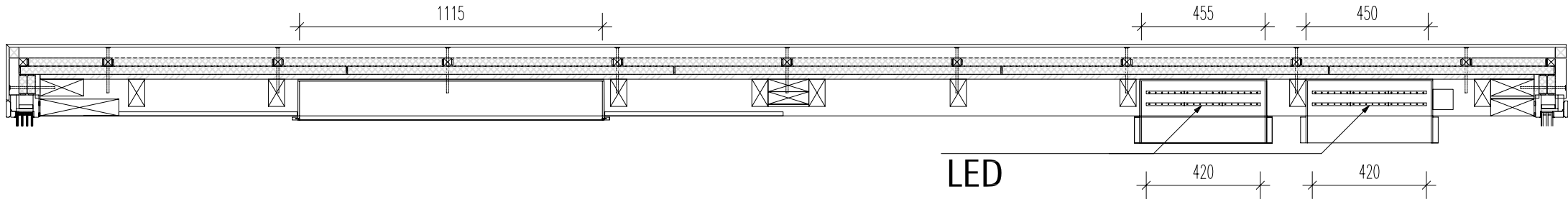
	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


4	lighting wall east	070728	SW
INDEX	DESCRIPTION	DATE	NAME

INDEX	DESCRIPTION	SCALE
1	sect. drawing wall east	1:20
2	view wall east	1:20
3	LED deatil	1:5

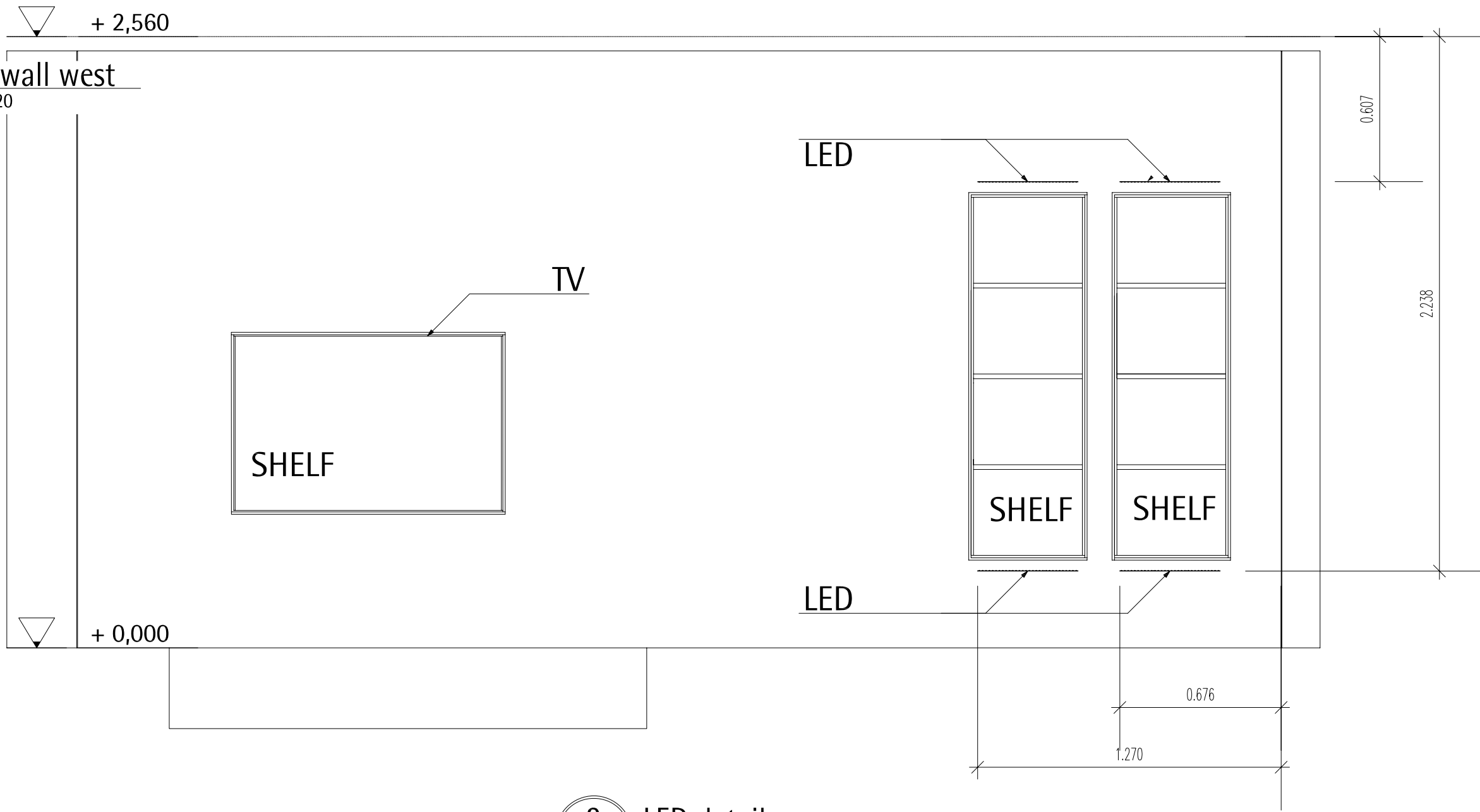
1  
A3.5

sectional drawing wall west  
Scale 1:20



2  
A3.5

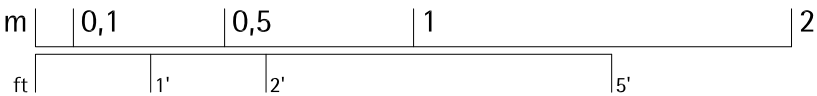
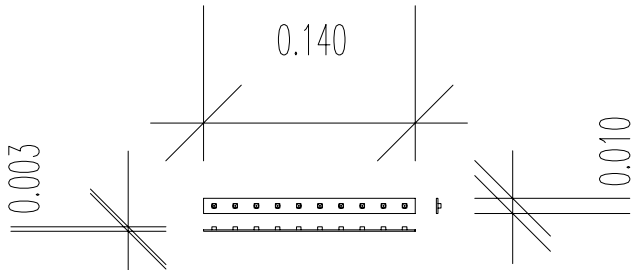
view wall west  
Scale 1:20



3  
A3.5

LED detail  
Scale 1:5

LINEARlight flex OSRAM  
for acrylic backlight  
smallest unit: 140mm  
10 LEDs = 1,44W, 24V, 0,06A



A

E

1

7

1

7

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E

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[www.solardecathlon.de](http://www.solardecathlon.de)  
[fg@ec.tu-darmstadt.de](mailto:fg@ec.tu-darmstadt.de)

wood board, structural  
wood board, interior  
metal building material  
insulation  
joint sealant

5	lighting wall west	070728	SW
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION		SCALE
1	sect. drawing wall west		1:20
2	view wall west		1:20
3	LED detail		1:5

DRAWING NUMBER

A3.5

COMPONENT

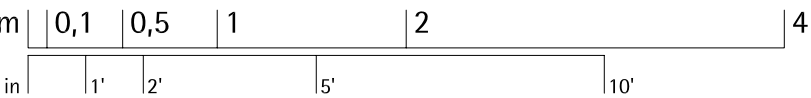
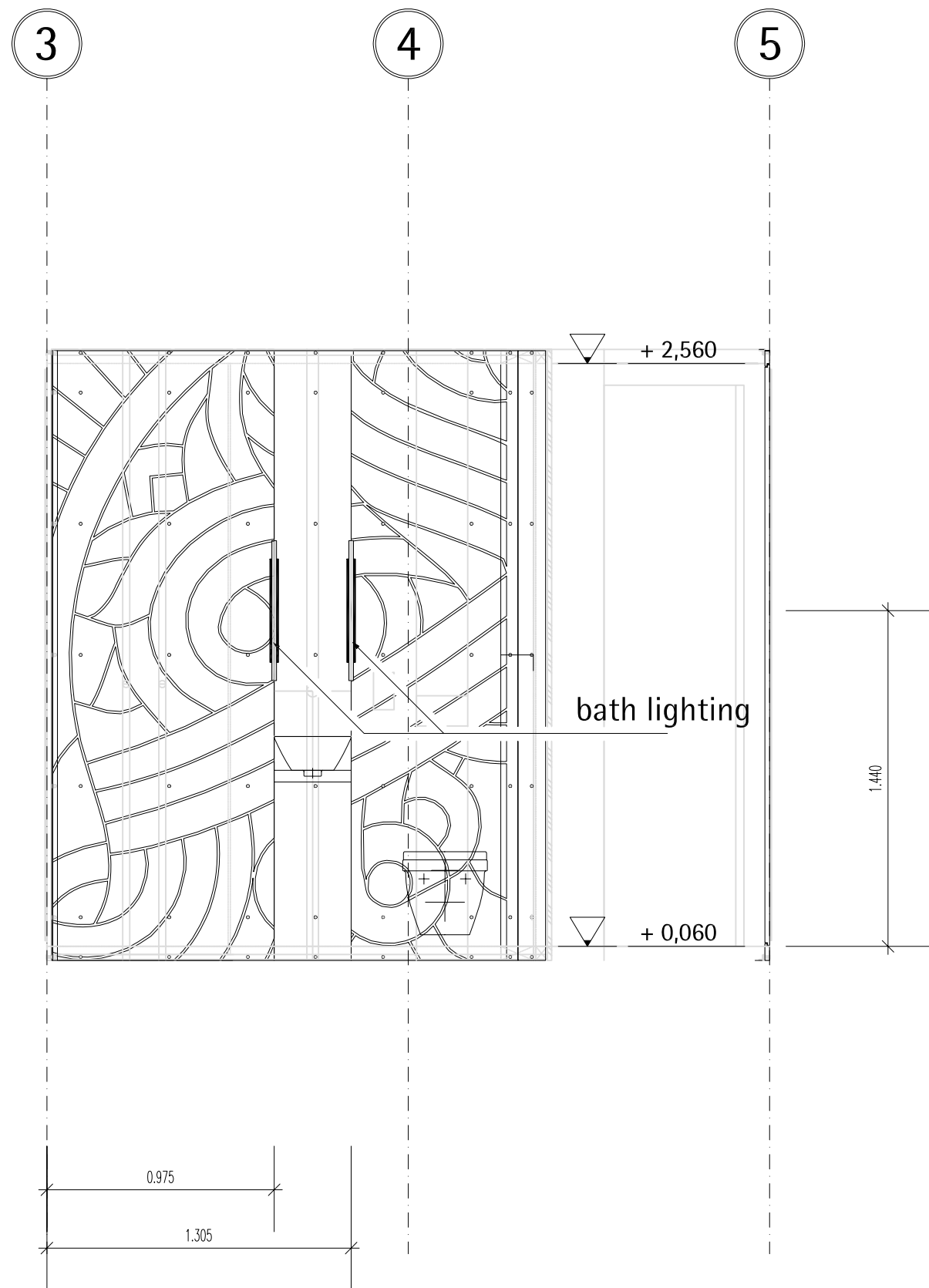
lighting walls

1

A3.6

view bath

Scale 1:25

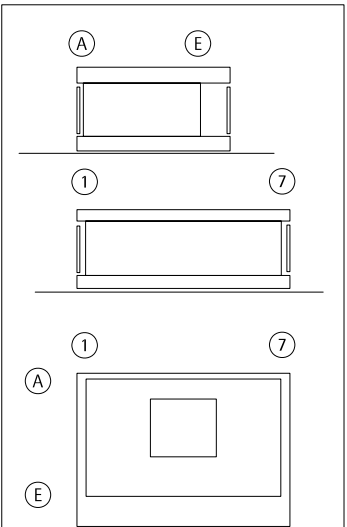
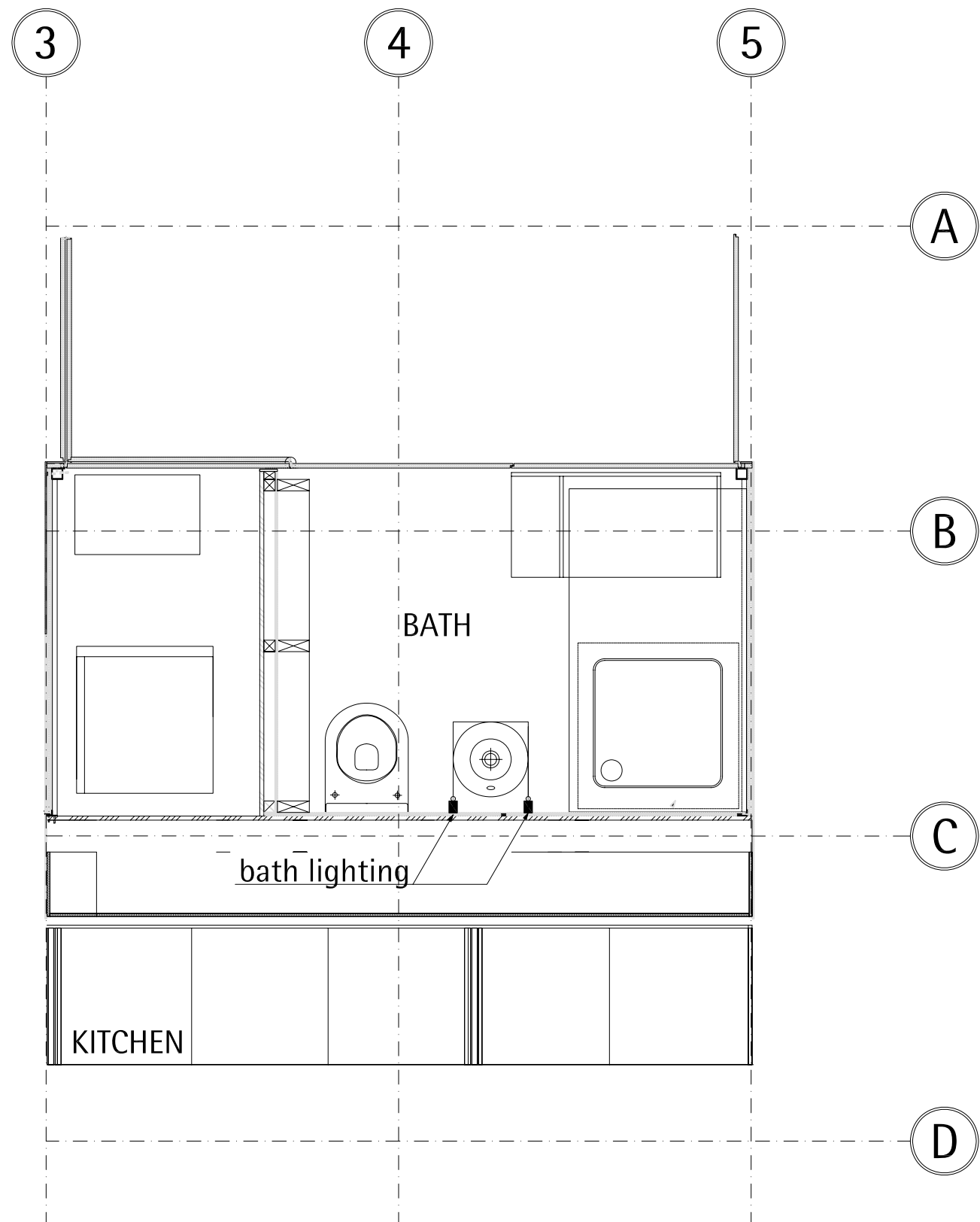


2

A3.6

floor plan bath

Scale 1:25



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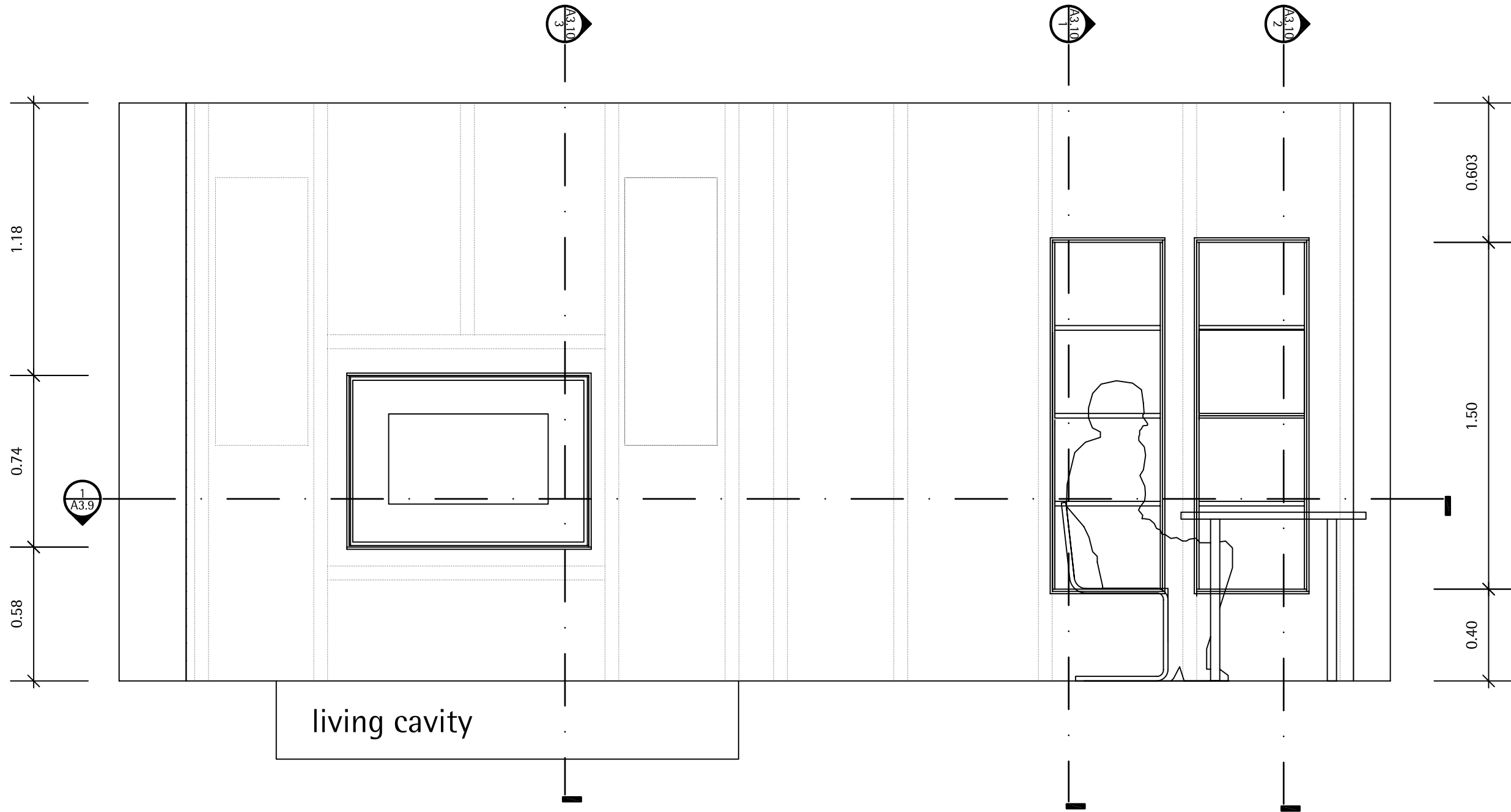
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[fg@ec.tu-darmstadt.de](mailto:fg@ec.tu-darmstadt.de)

	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

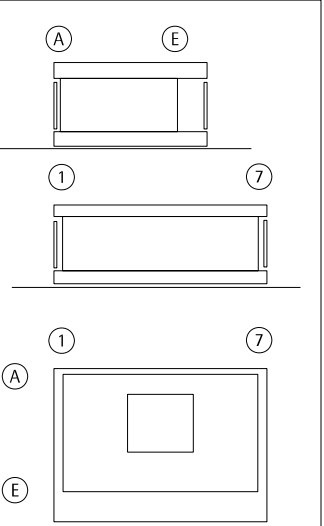
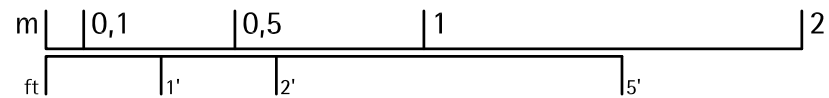

6	lighting bath	070728	SW
INDEX	DESCRIPTION	DATE	NAME

INDEX	DESCRIPTION	SCALE
1	view bath	1:25
2	floor plan bath	1:25


DRAWING NUMBER  
**A3.6**  
COMPONENT  
**lighting bath**



1 West Wall Elevation  
A3.7 Scale 1:20



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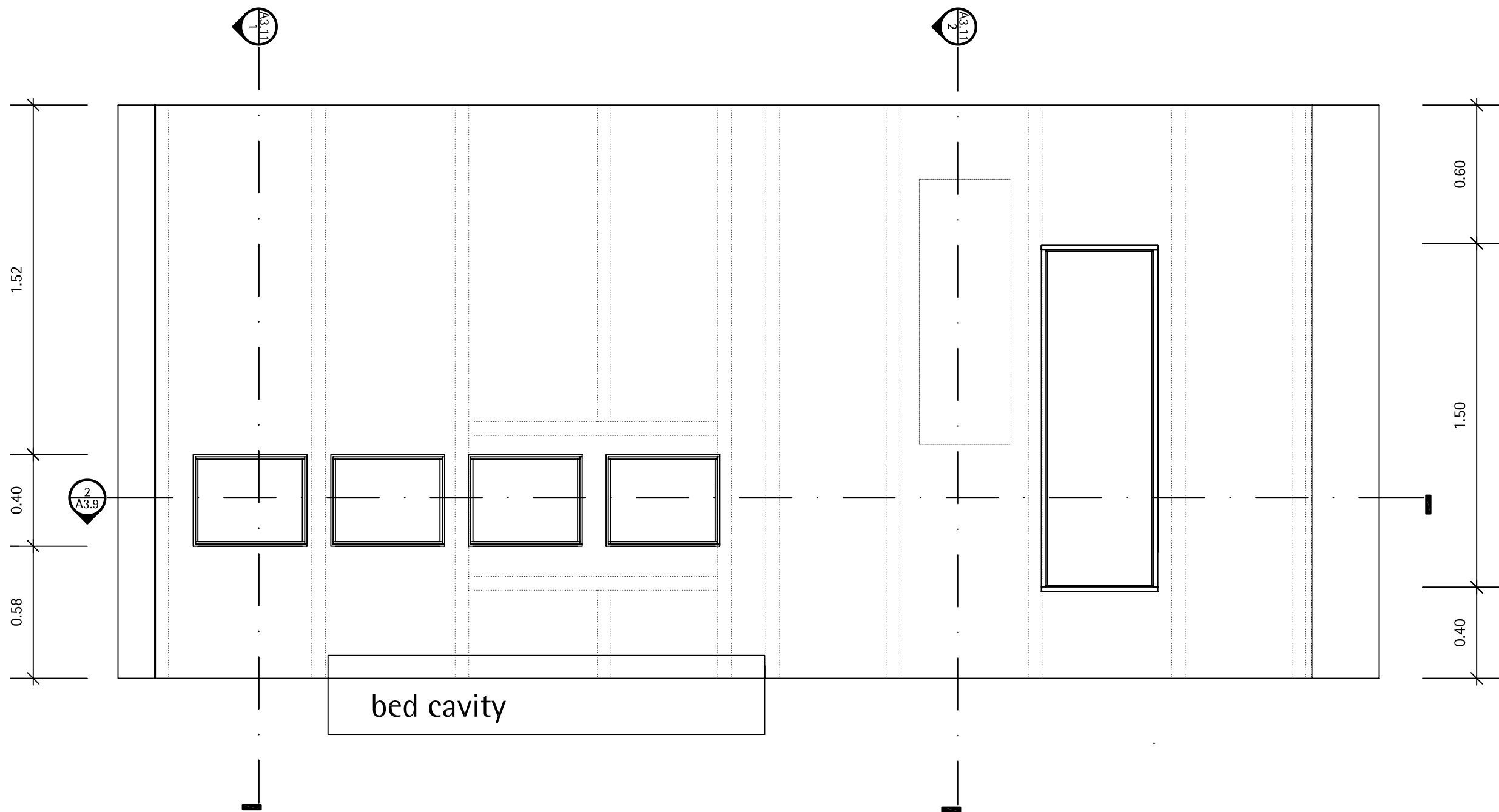
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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

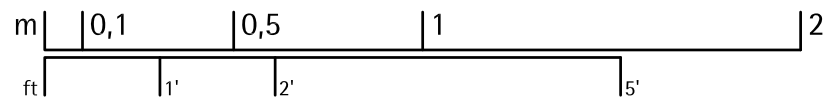
1	Interior Elevation West	08.01.07	JT
	DESCRIPTION	DATE	NAME
	DESCRIPTION		SCALE
1	Interior Elevation West	M 1:20	

DRAWING NUMBER  
**A3.7**

COMPONENT  
**Interior**



1 East Wall Elevation  
A3.8 Scale 1:20



A

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wood board, structural

wood board, interior

metal building material

insulation

joint sealant

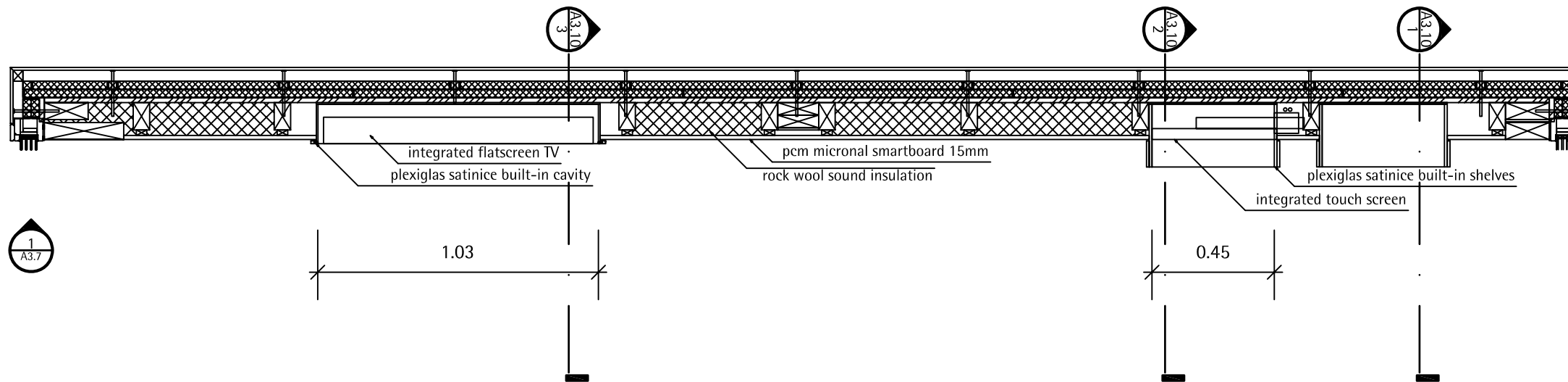
1	Interior Elevation East	08.01.07	JT
NO.	DESCRIPTION	DATE	NAME
1	Interior Elevation East		M 1:20

DRAWING NUMBER

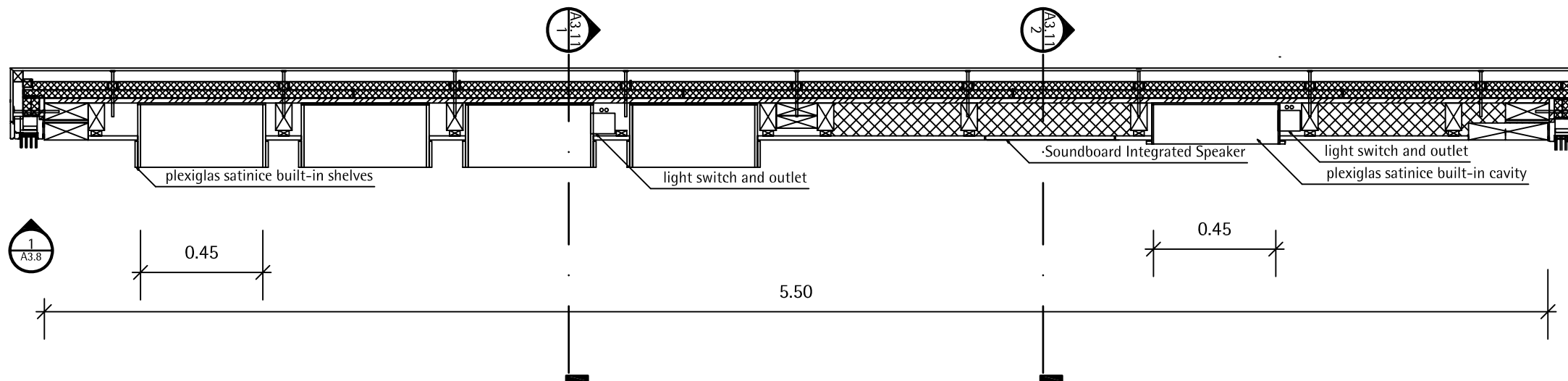
A3.8

COMPONENT

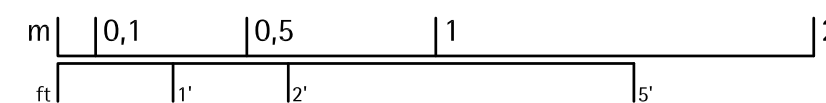
Interior




1 West Wall Section horizontal  
Page Scale 1:20



2 East Wall Section horizontal  
A3.9 Scale 1:20





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[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

wood board, structural

wood board, interior

metal building material

insulation

joint sealant

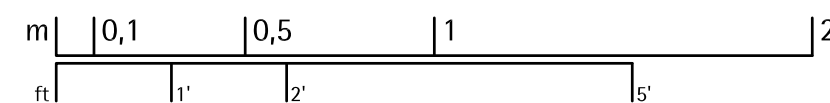
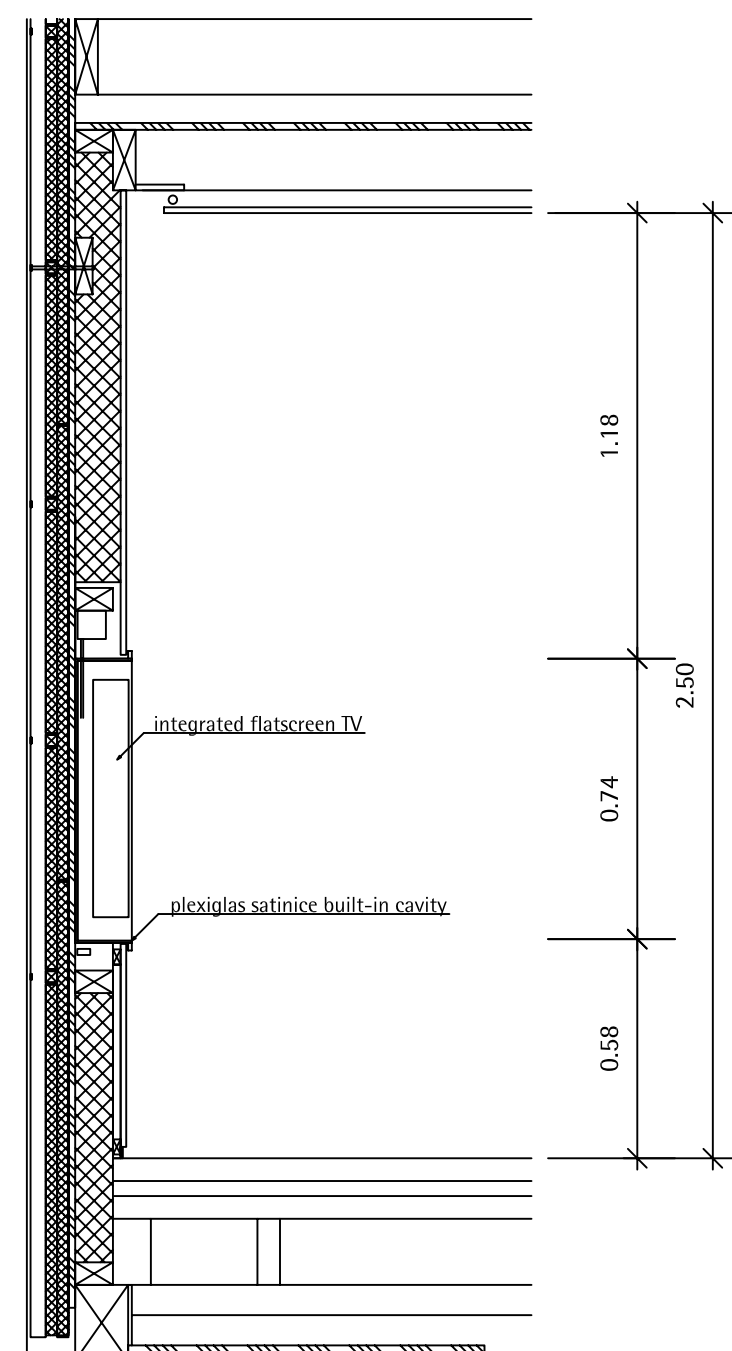
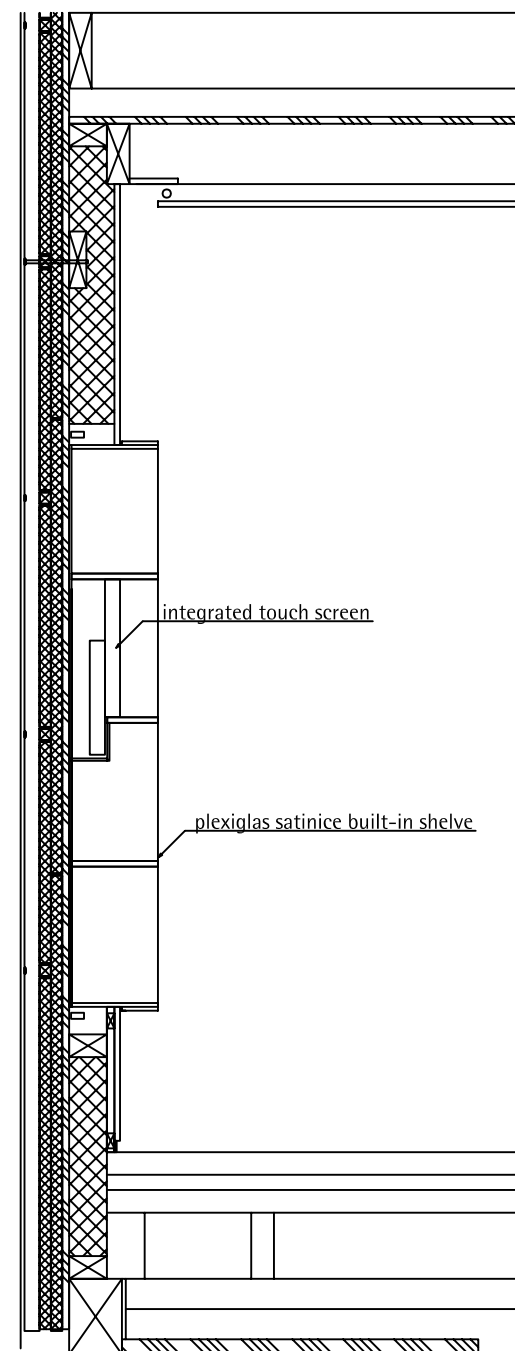
NO.	DESCRIPTION	DATE	NAME
1	Horizontal Sectionsn	08.01.07	JT

NO.	DESCRIPTION	SCALE
1	Horizontal Section West	M 1:20
2	Horizontal Section East	M 1:20

**A3.9**

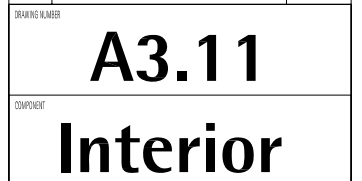
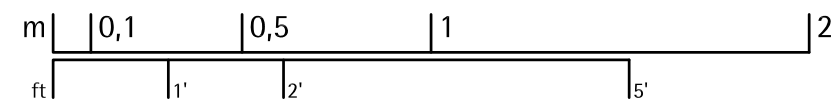
**Interior**





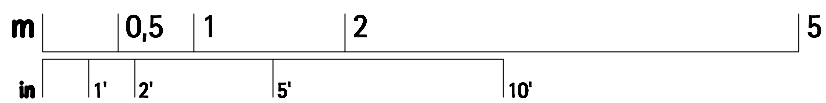
1	Section West Wall	07.31.07	JT
ID#XJ	DESCRIPTION	DATE	NAME
ID#XJ	DESCRIPTION	SCHE	
1	Section Shelf	M 1:	
2	Section Shelf with Screen	M 1:	
3	Section TV Cavity	M 1:	

DRAWING NUMBER	<b>A3.10</b>
COMPONENT	<b>Interior</b>



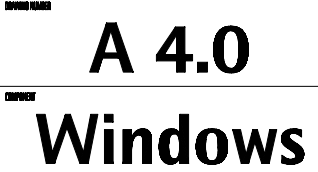
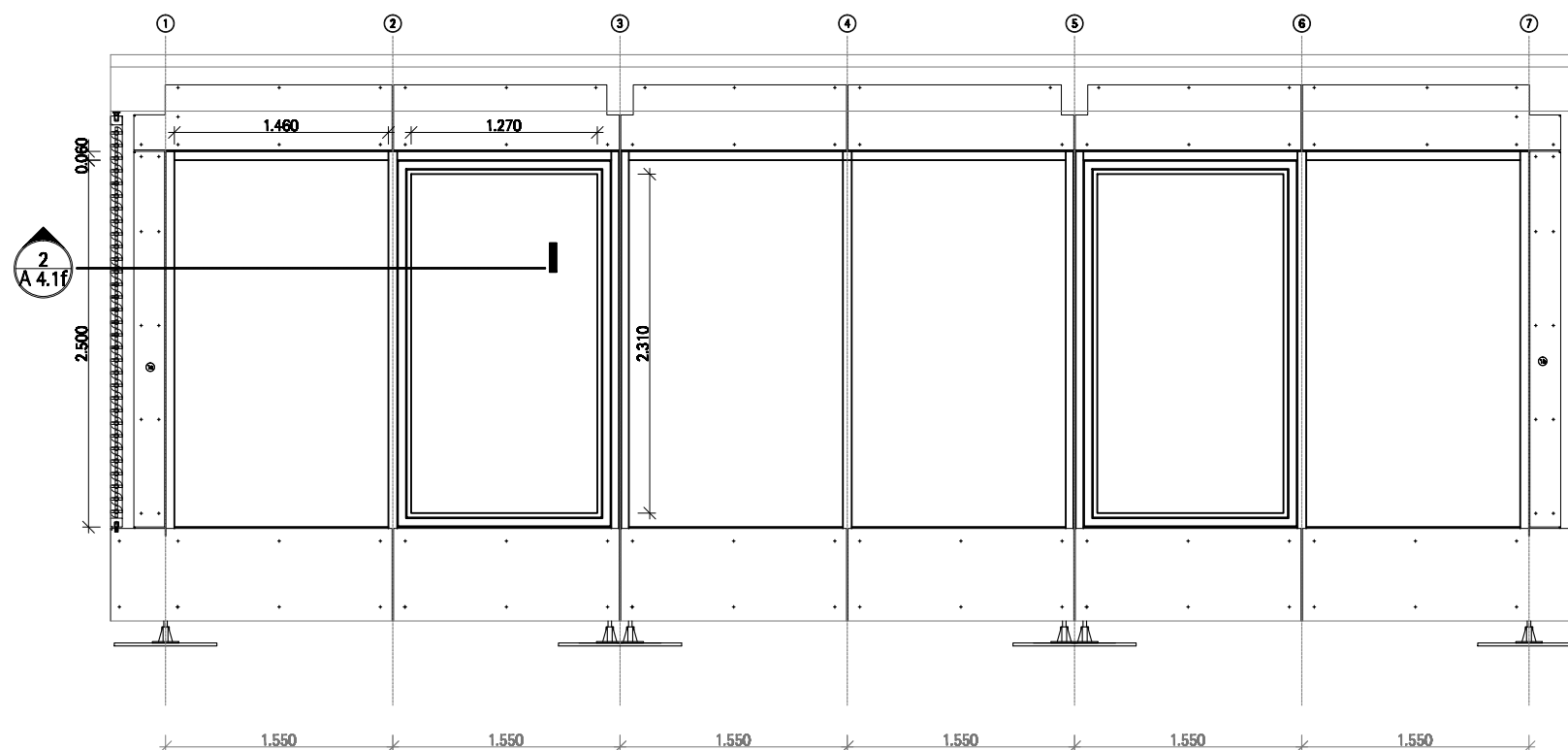
# Window Fassade north

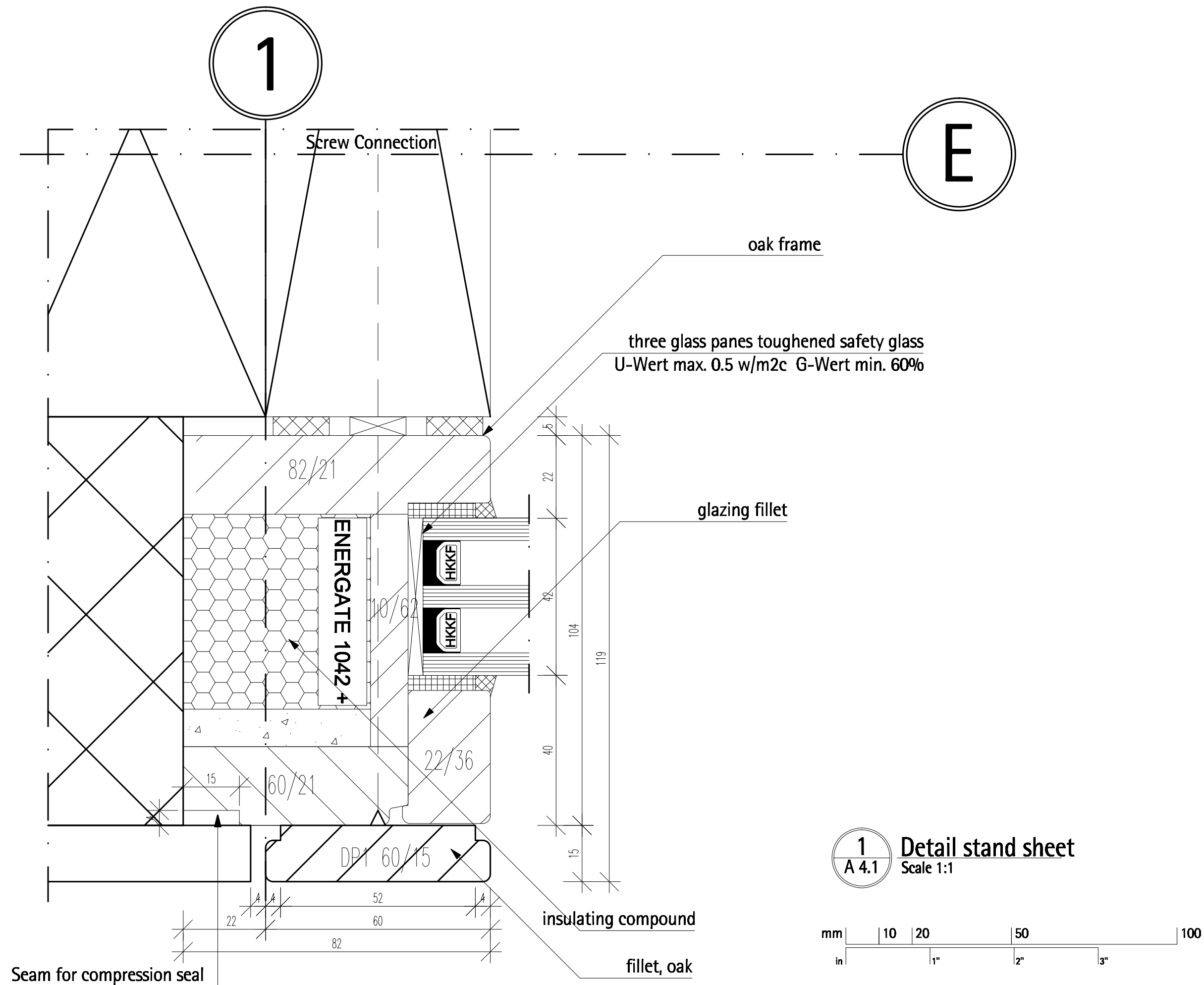
Scale 1:50



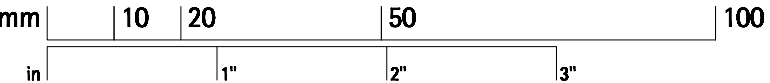
# Window Fassade south


Scale 1:50





1  
A 4.1  
Detail stand sheet  
Scale 1:1





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NO.	DESCRIPTION	DATE	BY
1	Detail stand sheet south	07/07/07	FS

NO.	DESCRIPTION	SCALE
1	Detail stand sheet south	1:1

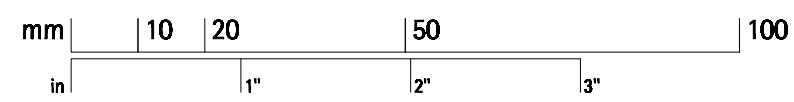
# A 4.1

## Windows

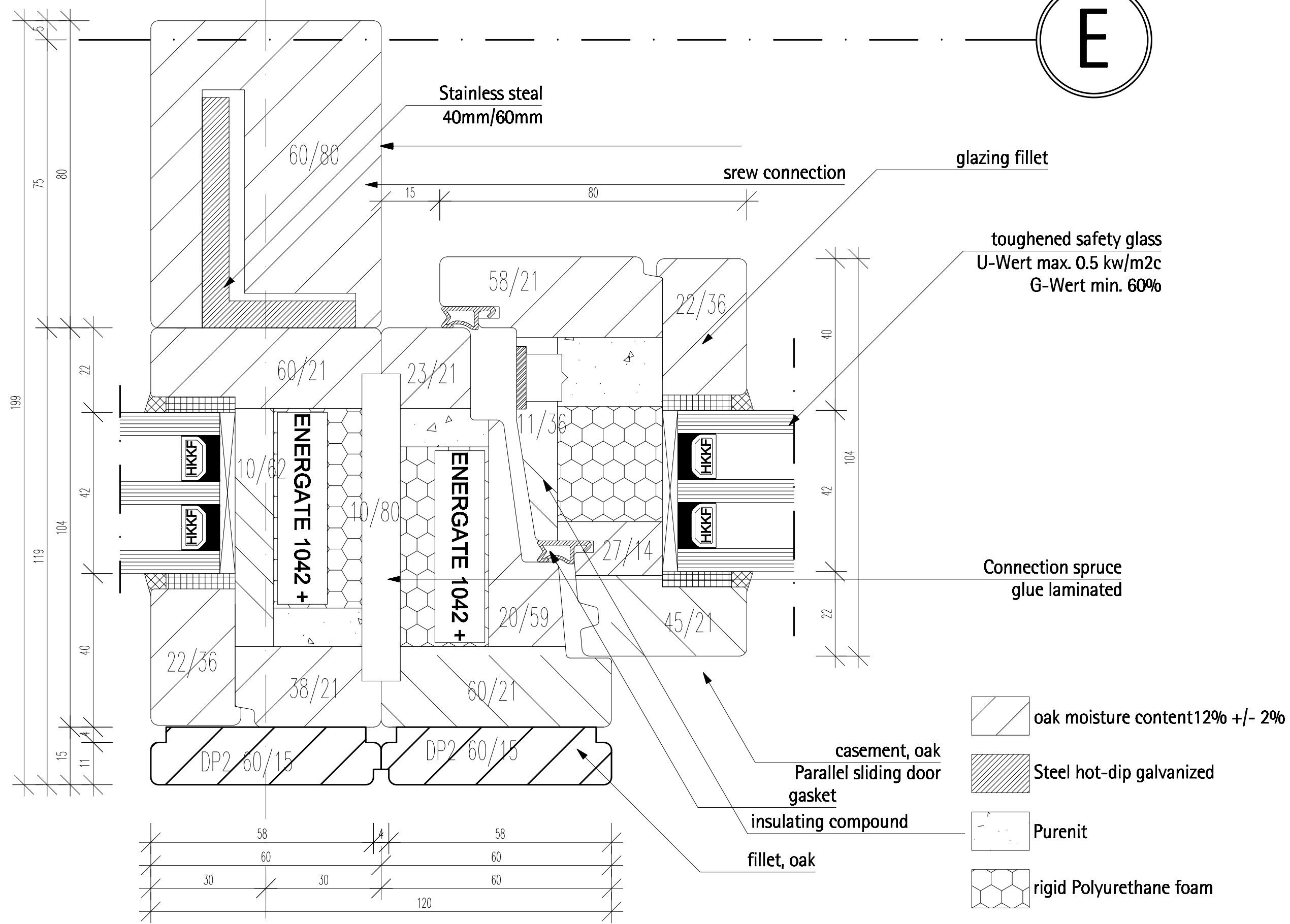
2

1  
A 4.2

Detail sliding glass door  
Scale 1:1



E



glazing fillet

toughened safety glass  
U-Wert max. 0.5 kw/m2c  
G-Wert min. 60%

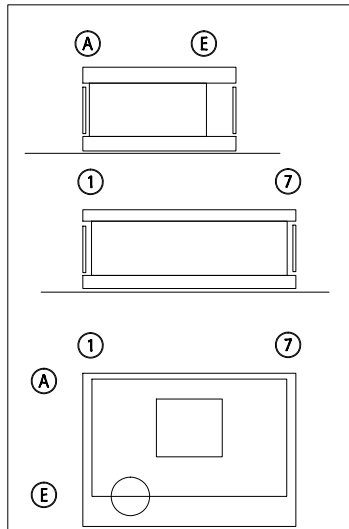
Connection spruce  
glue laminated

casement, oak  
Parallel sliding door  
gasket

insulating compound

fillet, oak

- oak moisture content 12% +/- 20%
- Steel hot-dip galvanized
- Purenit
- rigid Polyurethane foam





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NO.	REVISION	DATE	BY
1	Detail sliding glass door	07/07/07	FS
1	Detail sliding glass door		1:1

**A 4.2**  
**Windows**

7

## Detail stand sheet north

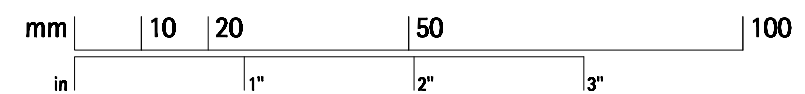
Scale 1:1



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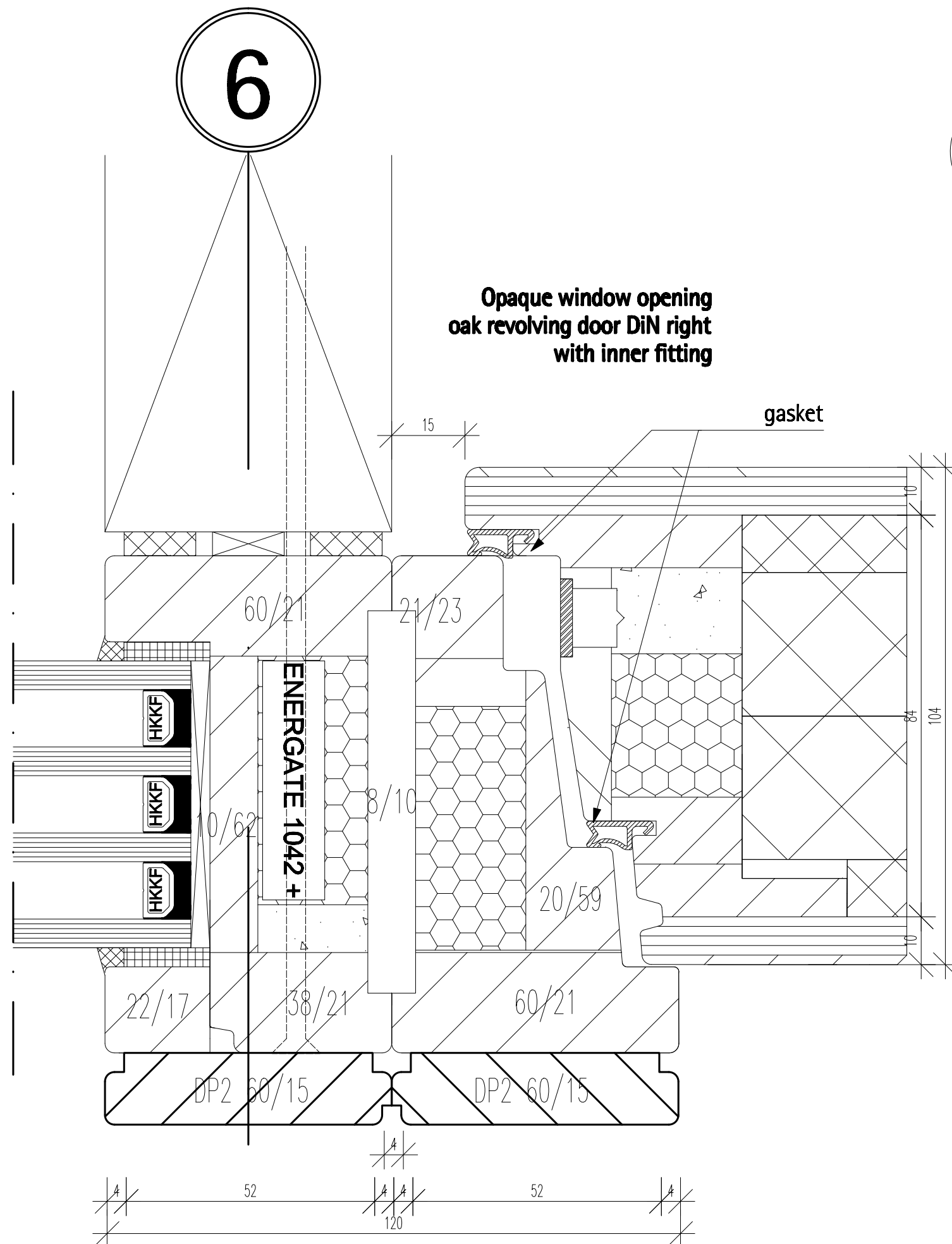

## A 4.3

# Windows



## A 4.3

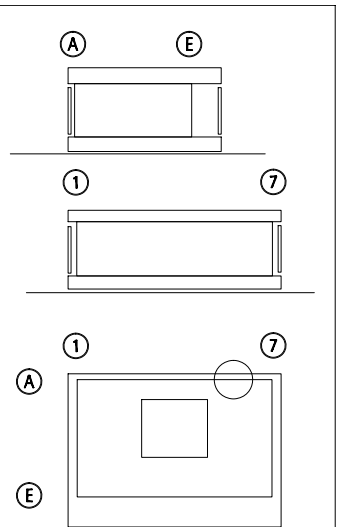
# Windows



1  
A 4.4

## Detail opaque opening

Scale 1:1





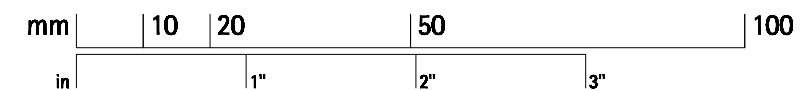
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NO.	DESCRIPTION	DATE	BY
1	Detail opaque opening	07/07/07	FS

NO.	DESCRIPTION	SCALE
1	Detail opaque opening	1:1



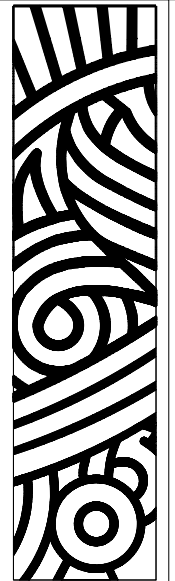
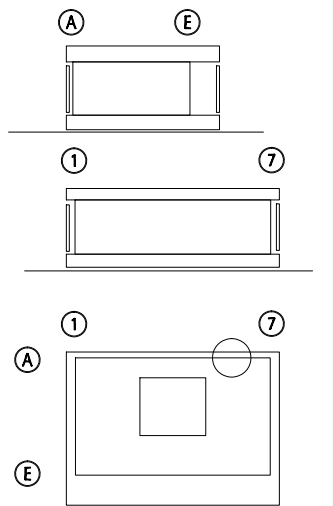
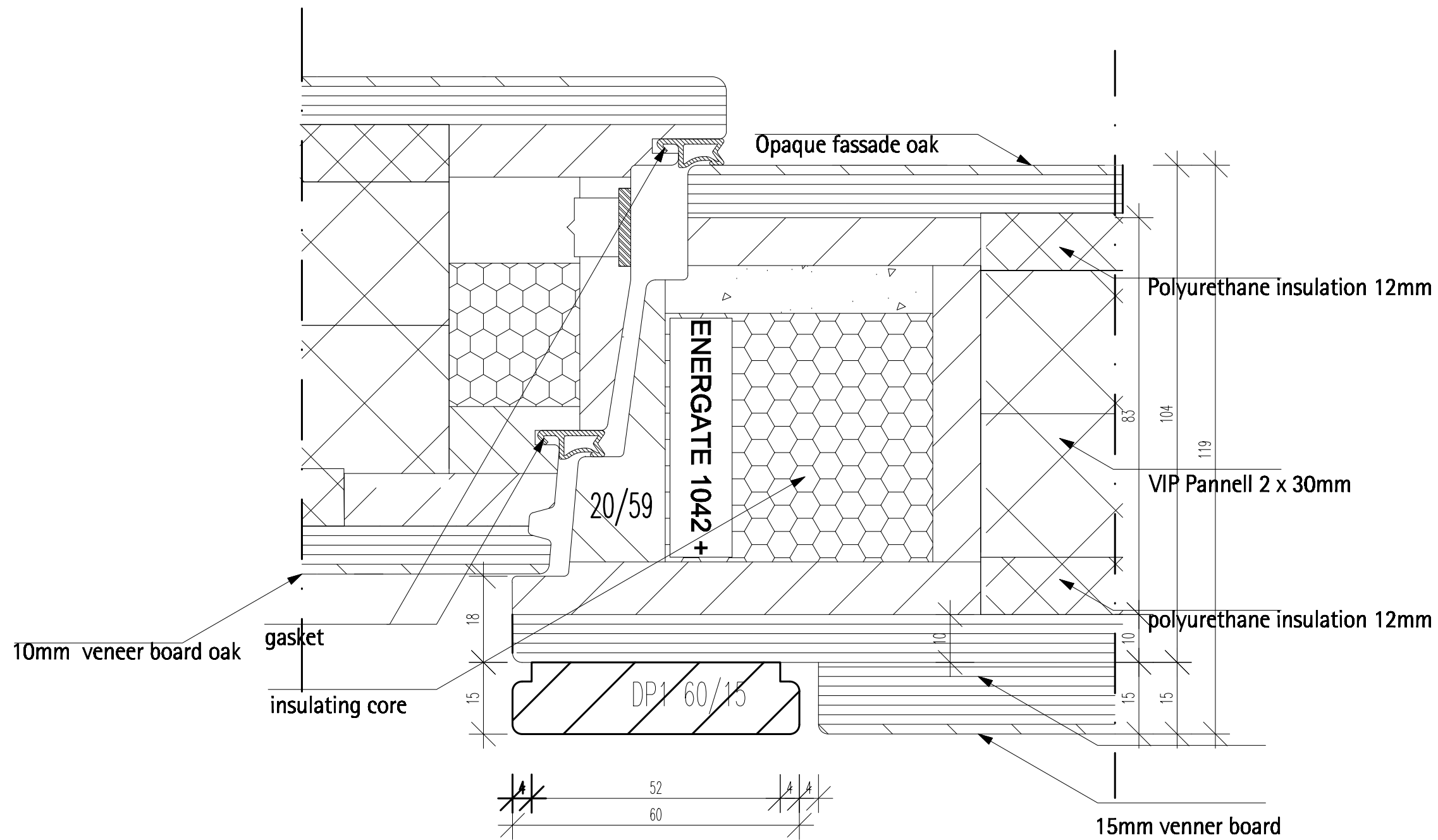
**A 4.4**

**Windows**



## Detail opaque opening

Scale 1:1



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[solardecathlon@ee.tu-darmstadt.de](mailto:solardecathlon@ee.tu-darmstadt.de)

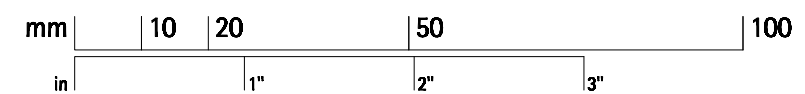
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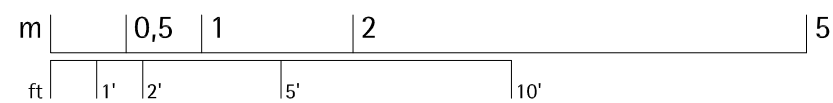
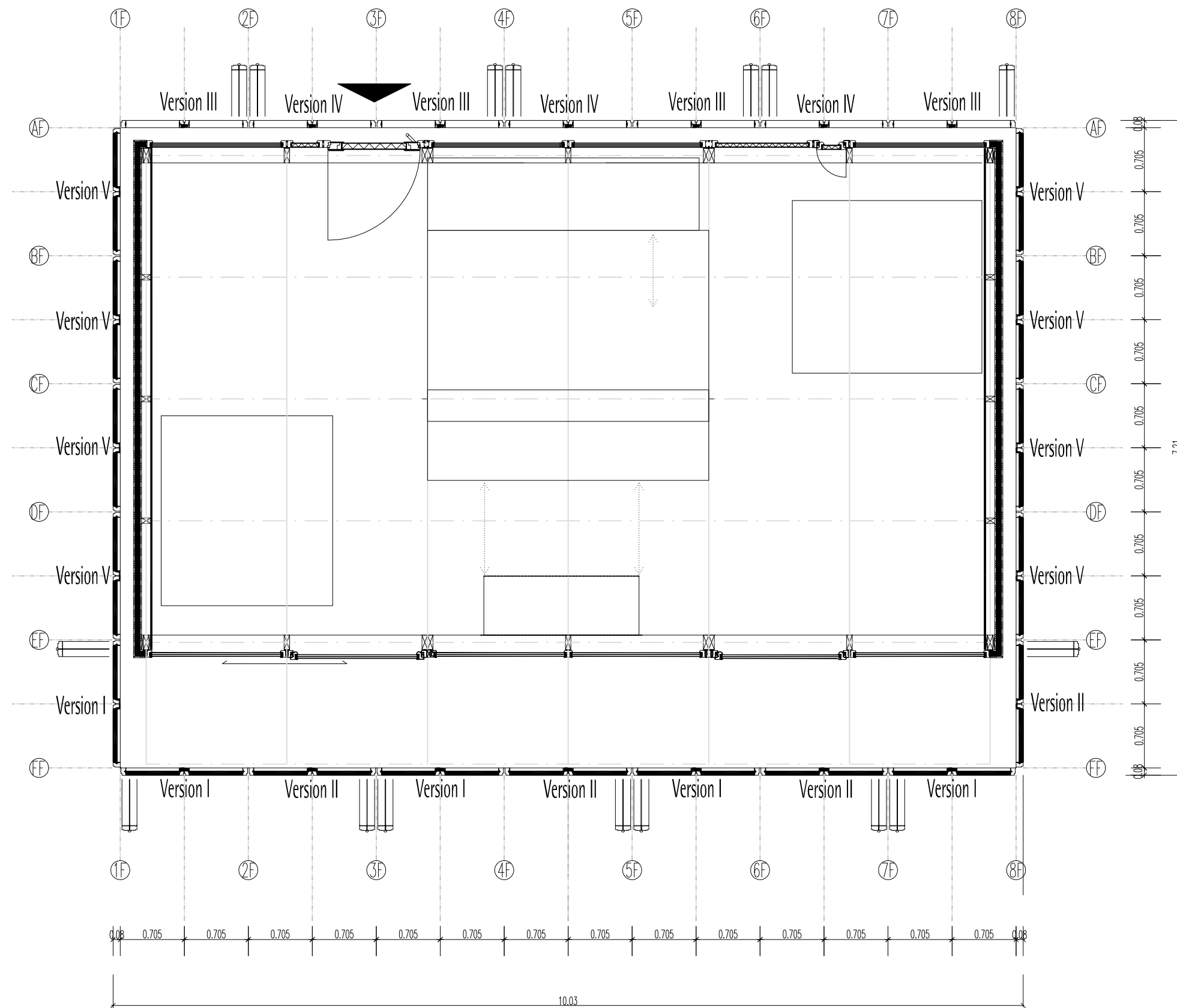
## DIFFERENTIAL

## A 4.5

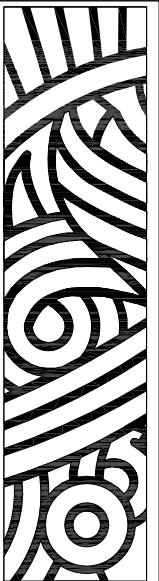
**CONCLUSIONS**

# Windows





Floor Plan With Louvers  
Scale 1:50



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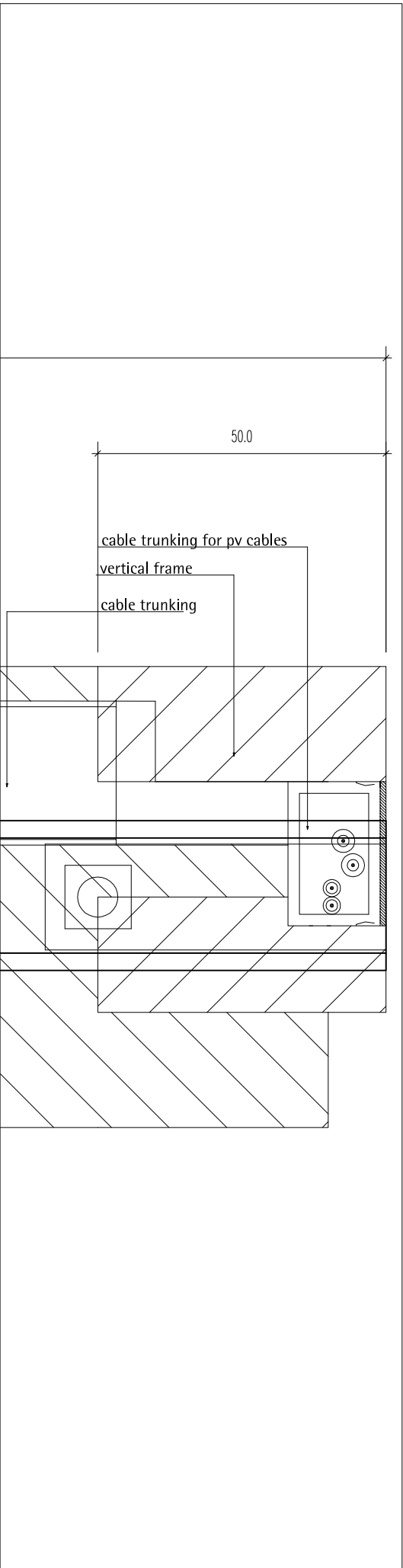
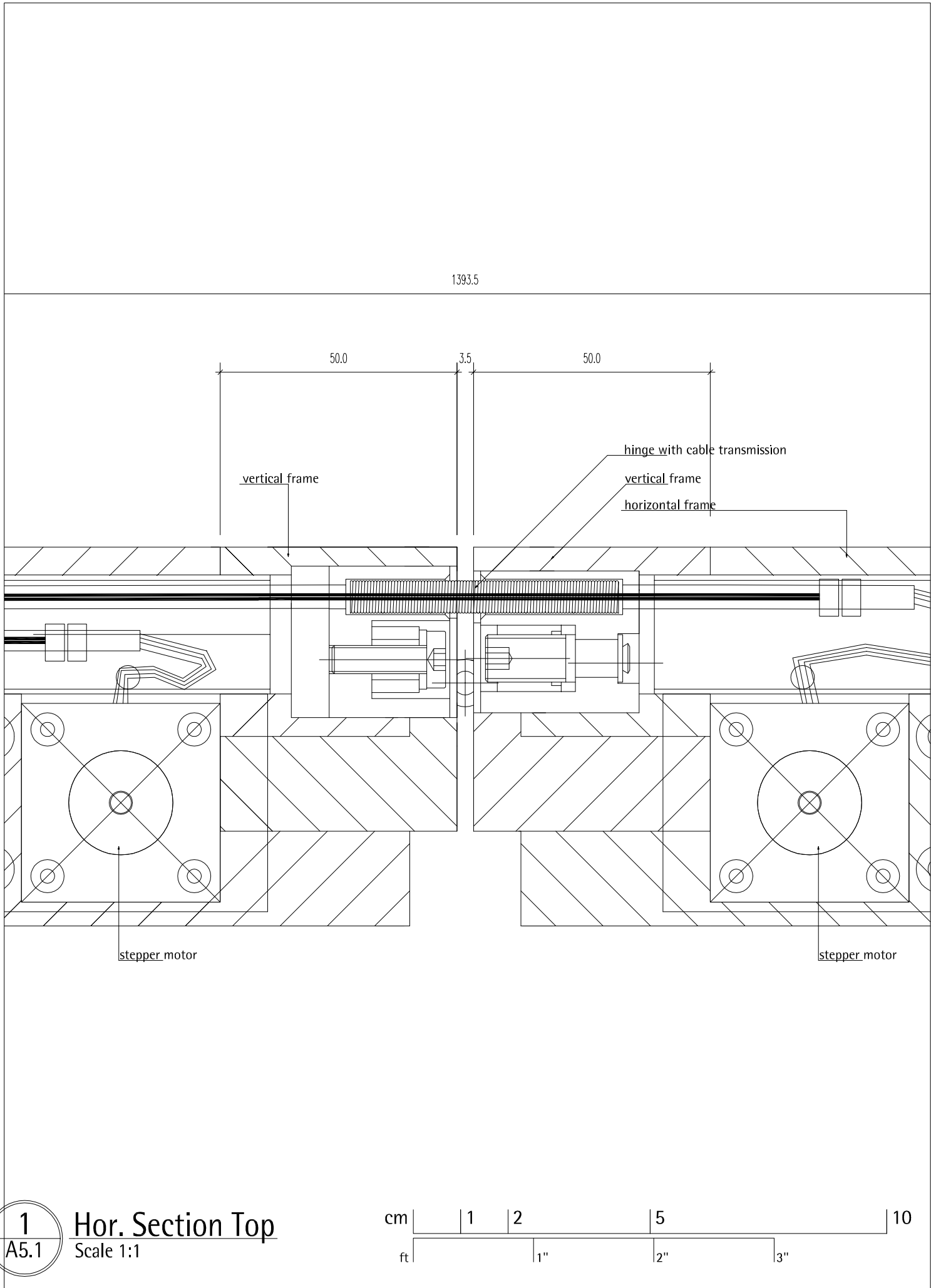
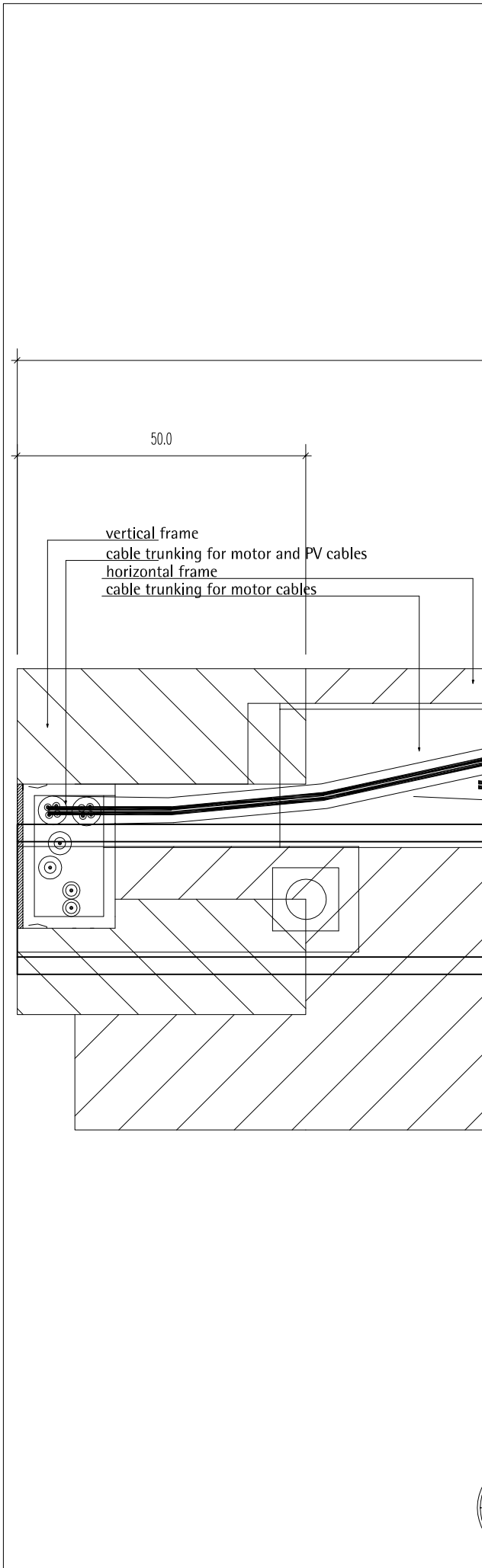
3	july- deliverables	07/2007	TW
2	march deliverables	03/2007	TW
1	plan creation	01/2007	TW
INDEX	DESCRIPTION	DATE	NAME
1	Floorplan with louvers		

DRAWING NUMBER

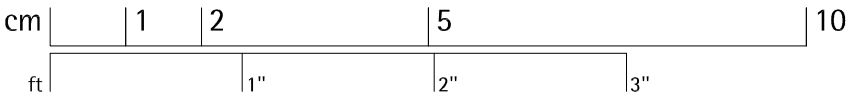
A5.0

COMPONENT

Louvers



1 Hor. Section Top  
A5.1 Scale 1:1



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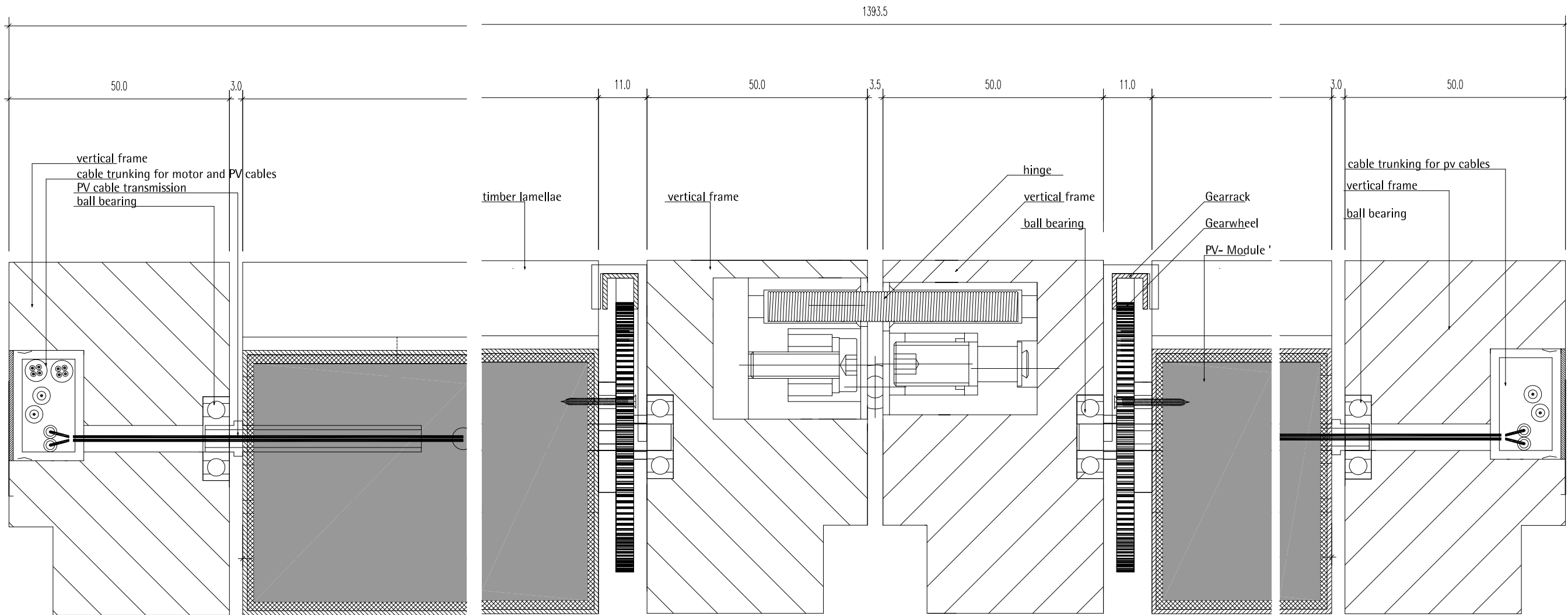
3	july- deliverables	07/2007	TW
2	march deliverables	03/2007	TW
1	plan creation	01/2007	TW
EX	DESCRIPTION	DATE	NAME
EX	DESCRIPTION		SCALE
1	hor. section top		1:1

DRAWING NUMBER

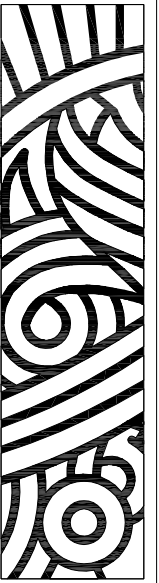
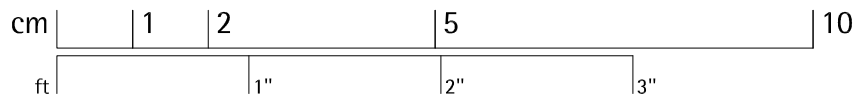
A5.1

COMPONENT

Louvers



1 Horiz. Section middle  
A5.2 1:1



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INDEX	DESCRIPTION	DATE	NAME
3	july- deliverables	07/2007	TW
2	march deliverables	03/2007	TW
1	plan creation	01/2007	TW

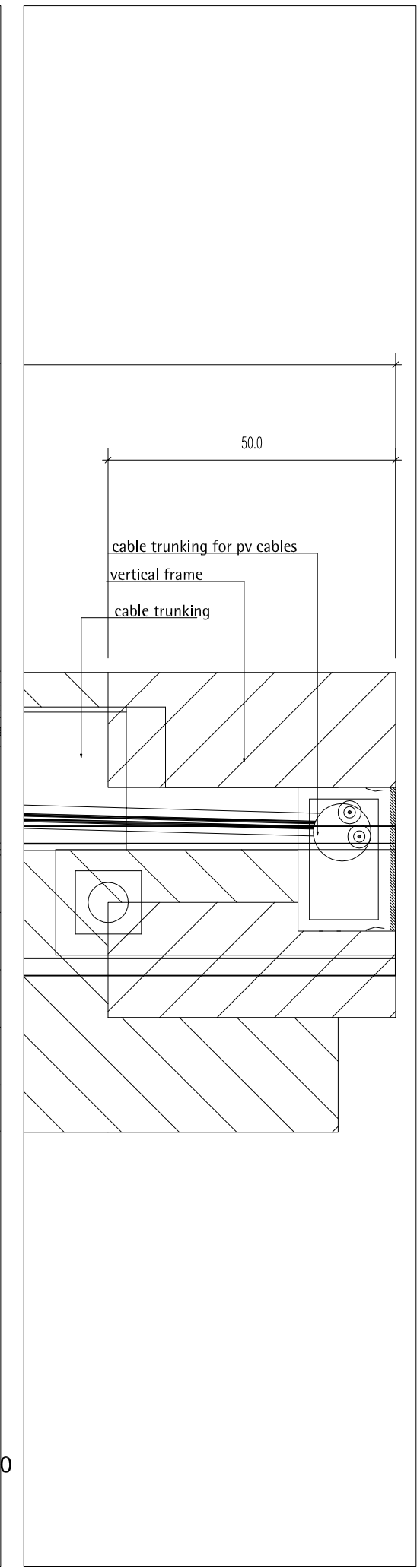
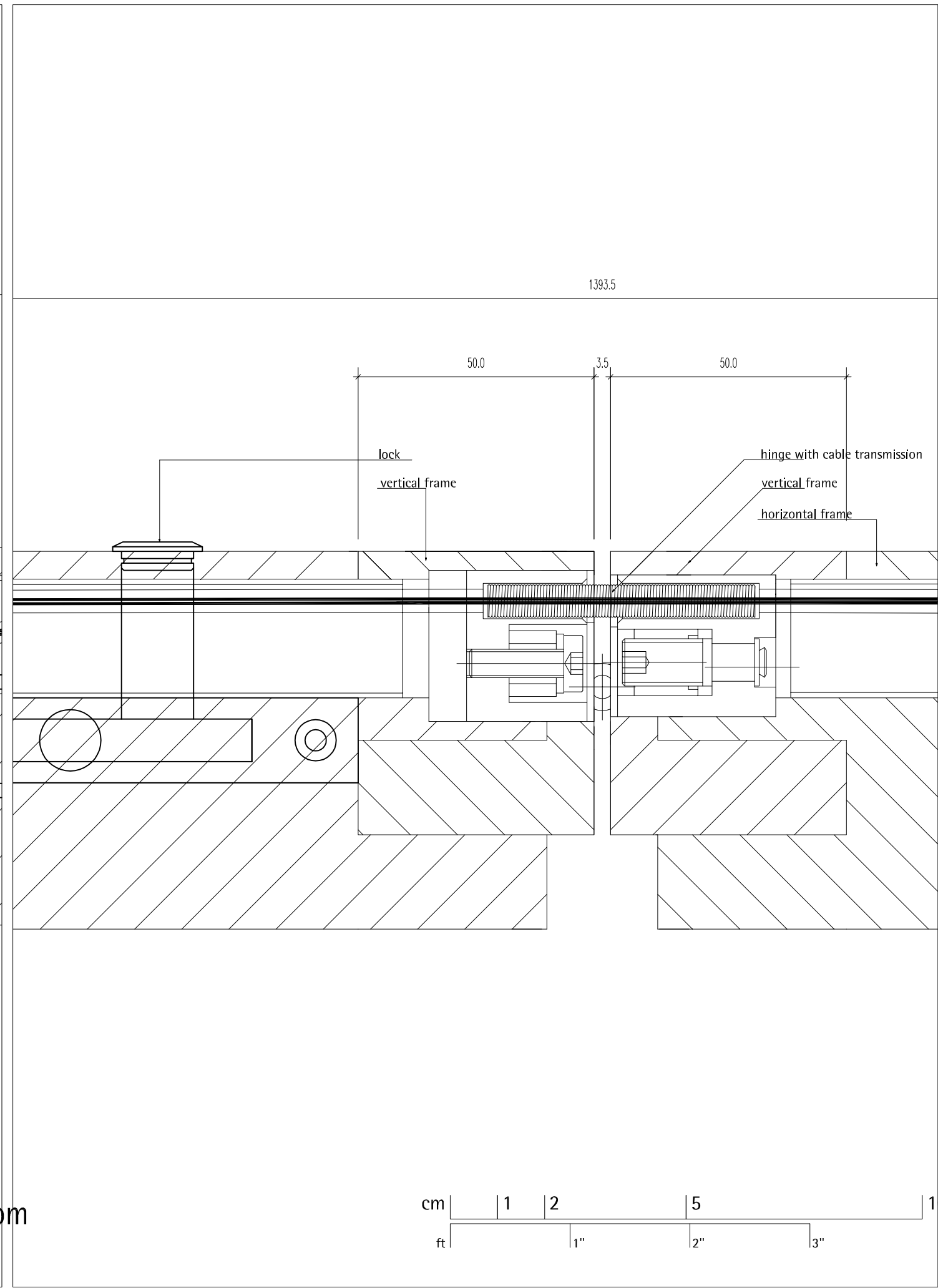
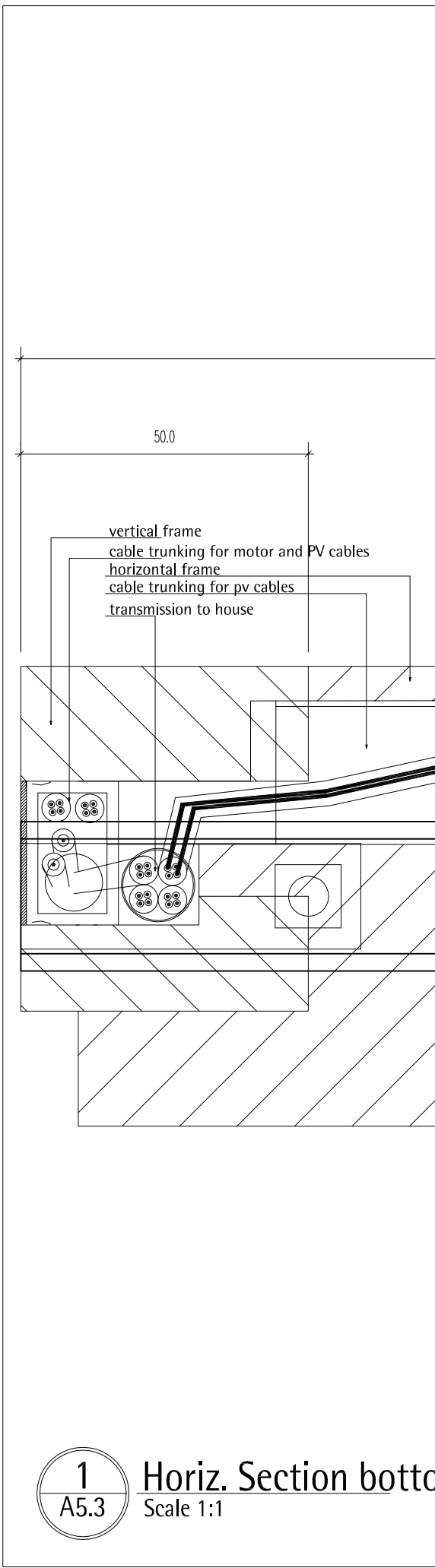
INDEX	DESCRIPTION	SCALE
1	hor. section middle	1:1

DRAWING NUMBER

A5.2

COMPONENT

Louvers





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INDEX	DESCRIPTION	DATE	NAME
3	july- deliverables	07/2007	TW
2	march deliverables	03/2007	TW
1	plan creation	01/2007	TW

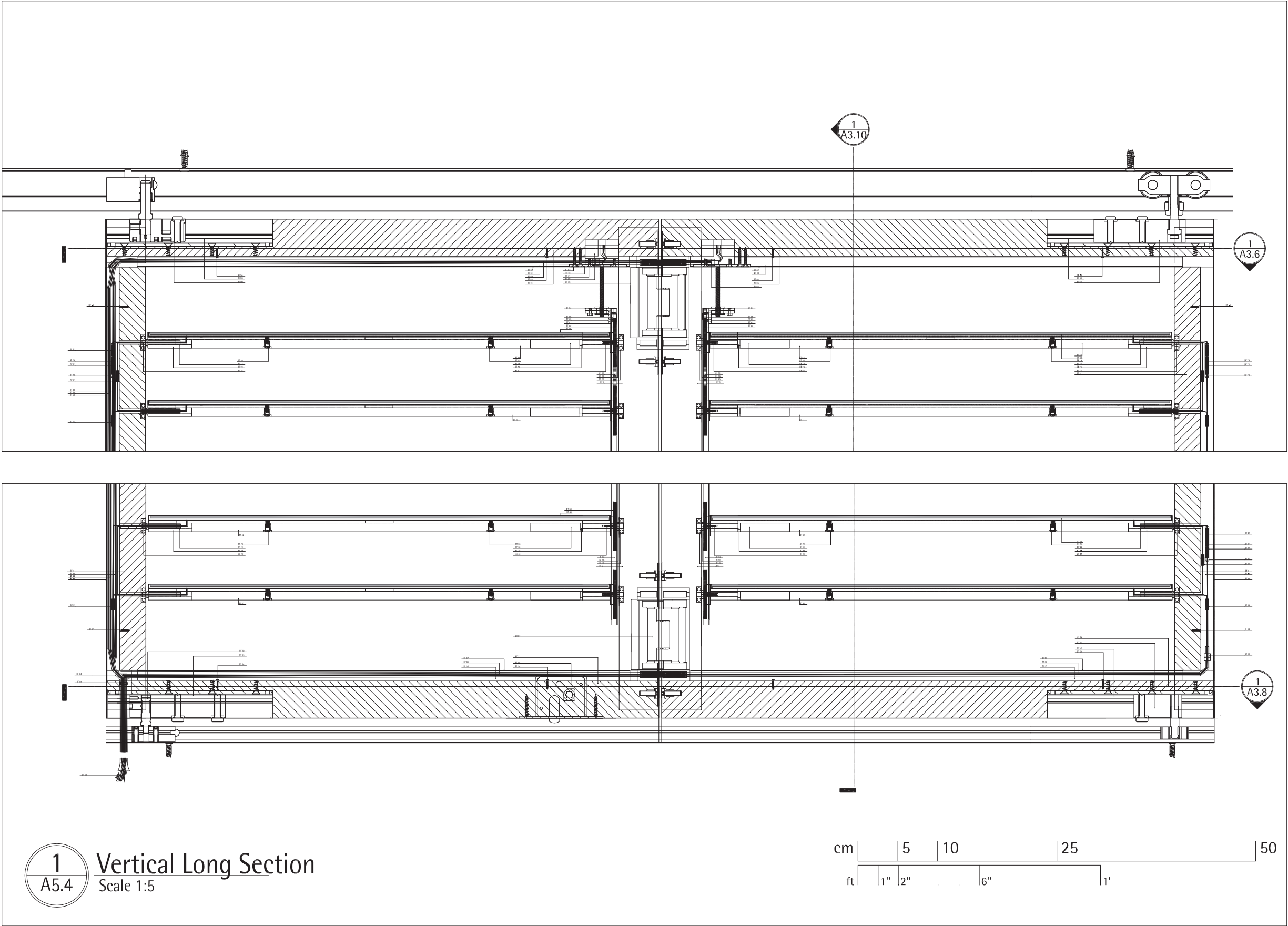
INDEX	DESCRIPTION	SCALE
1	hor. section bottom	1:1

DRAWING NUMBER

**A5.3**

COMPONENT

**Louvers**



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3	july- deliverables	07/2007	TW
2	march deliverables	03/2007	TW
1	plan creation	01/2007	TW
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	vert. long section	1:5	

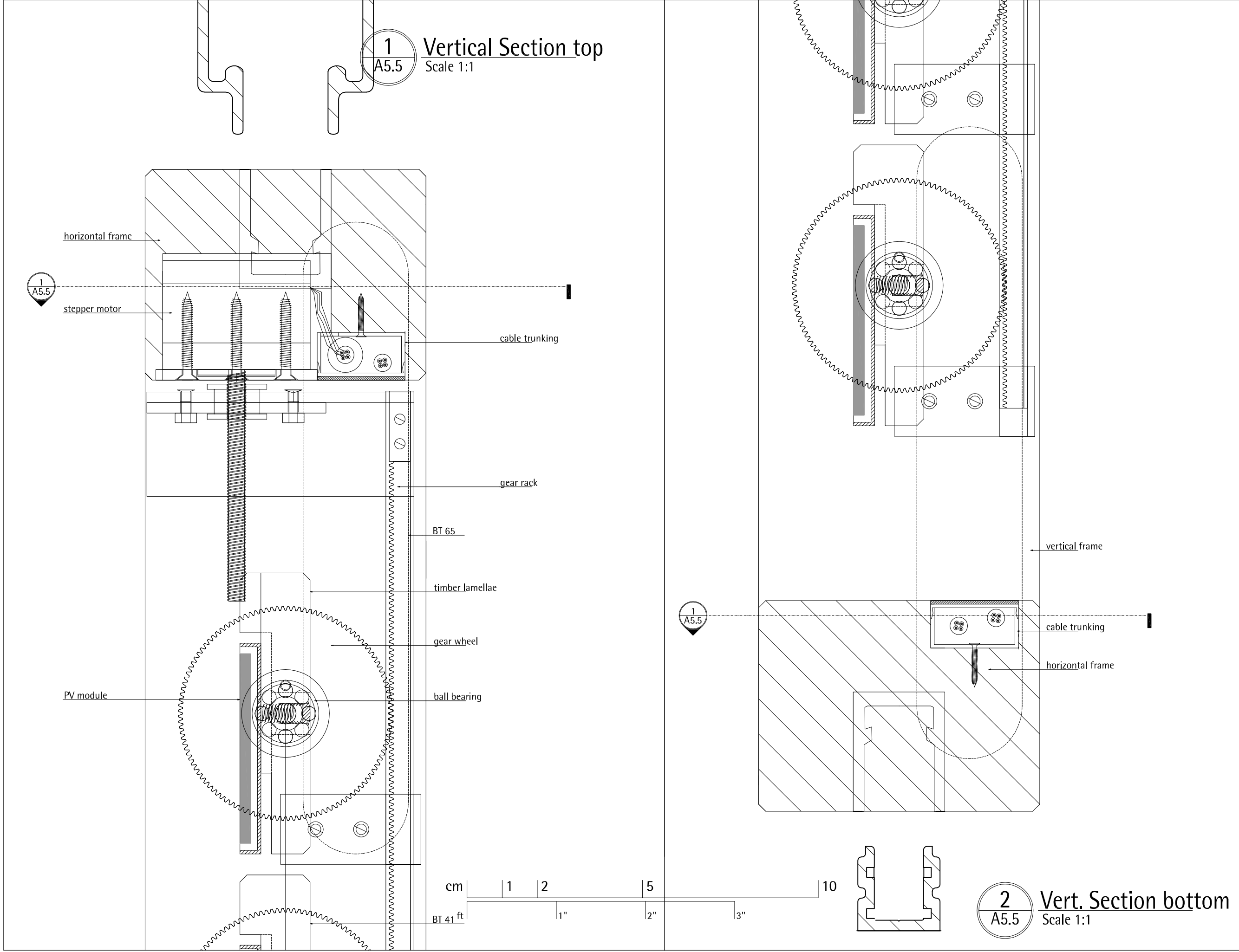
DRAWING NUMBER

A5.4

COMPONENT

Louvers





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3	july- deliverables	07/2007	TW
2	march deliverables	03/2007	TW
1	plan creation	01/2007	TW
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	vert. section top/bottom	1:1	

DRAWING NUMBER

A5.5

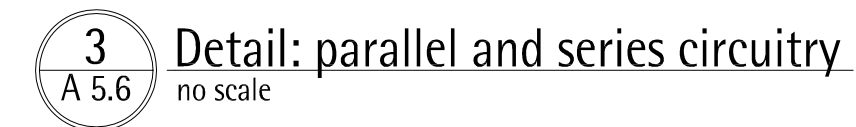
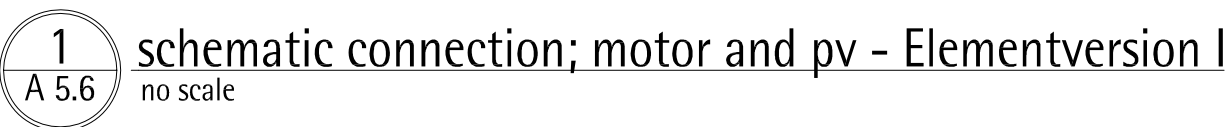
COMPONENT

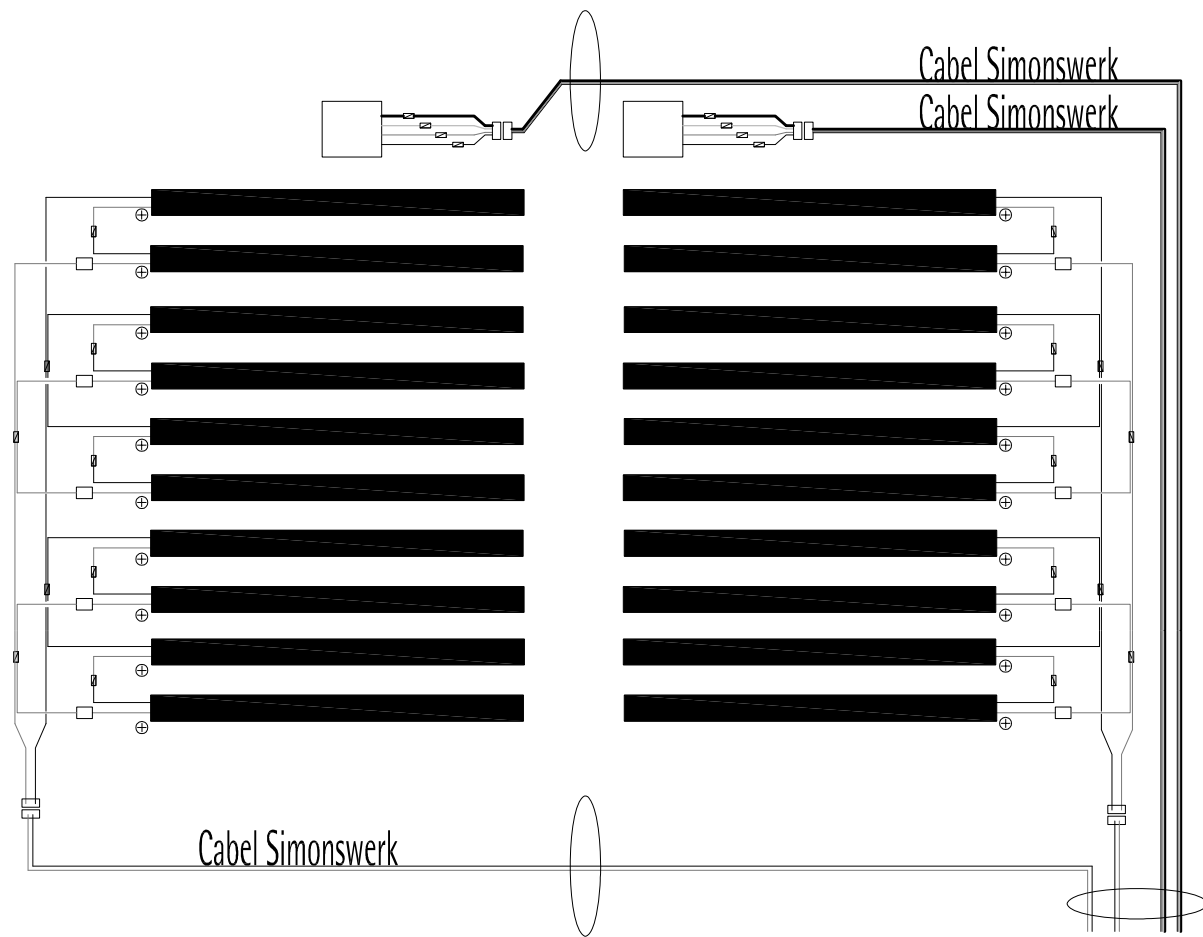
Louvers

In each case two among one another pv-modules are combined to one series connection. Those cables are connected with a Crimpseal II 0.1-0.5mm<sup>2</sup>. Every louver-frame consists of 15 pairs, with two modules each, which are parallel connected. All those cables are connected by a Crimpseal II 0,5-1,5mm<sup>2</sup>. Both circuits are using cables from the Faber company.

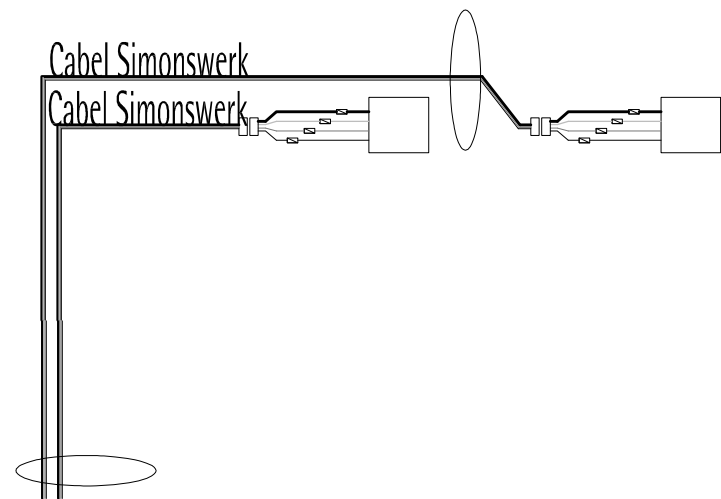
At the end of each parallelcircuit there is one negativ and one positive conductor. They are connected to a cable from the Simonswerk company either to be connected to the next frame or to access the house.

The motor is delivered with a 150mm connecting cable.  
As cable extension for the way through the frame is used the cable from the Simonswerk company.  
The connection is made with a Crimpseal II 0.1-0.5mm<sup>2</sup>.

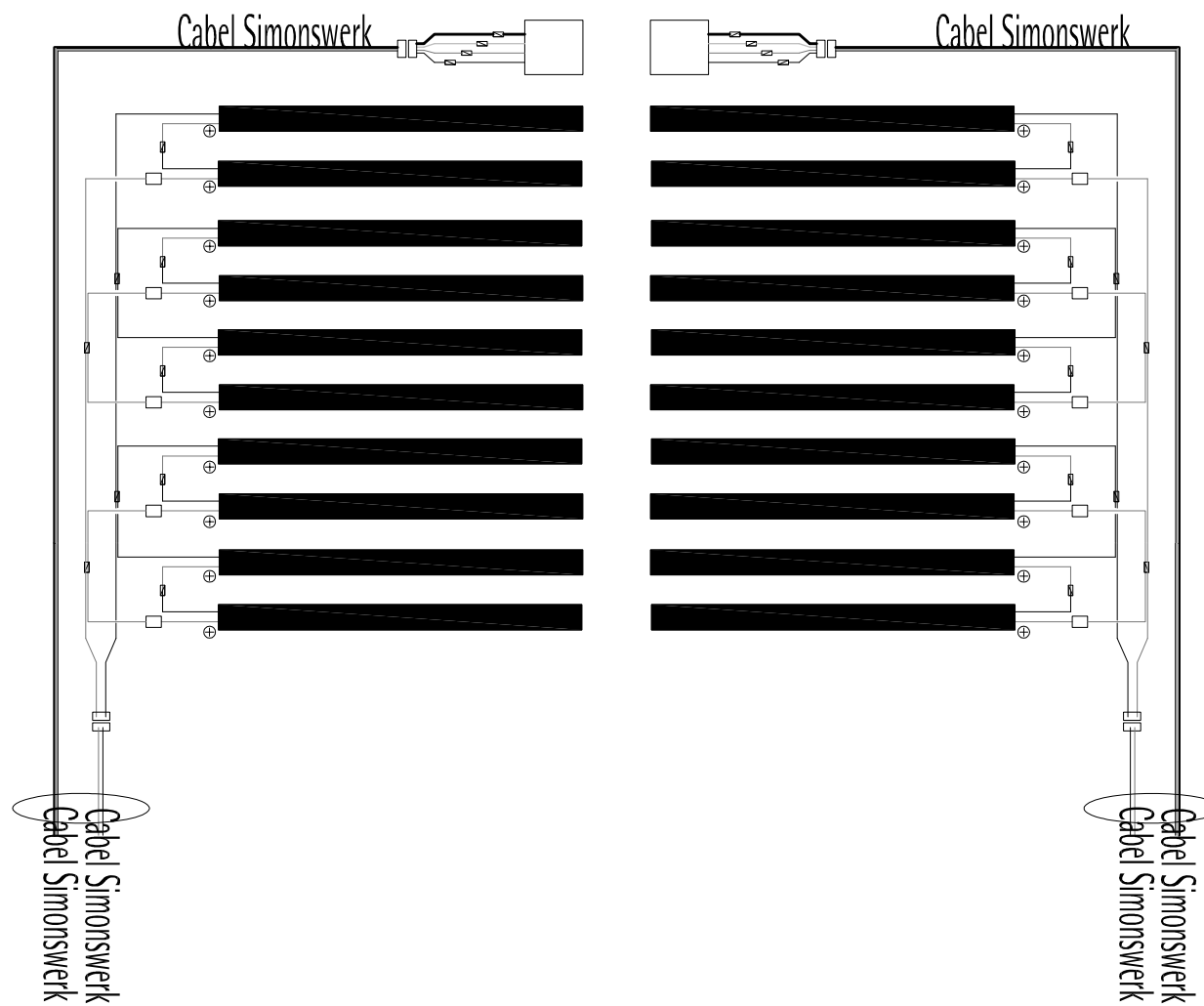




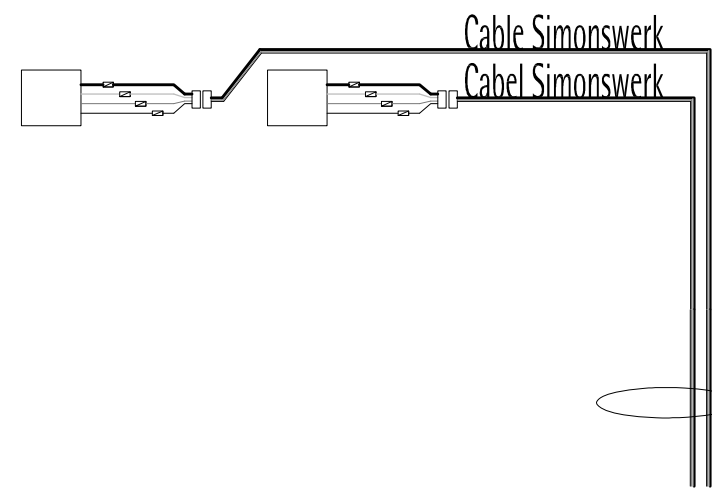
1 schematic connection; motor and pv - Elementversion II  
A 5.7 no scale



3 schematic connection; motor and pv - Elementversion III  
A 5.7 no scale



2 schematic connection; motor and pv - Elementversion V  
A 5.7 no scale



4 schematic connection; motor and pv - Elementversion IV  
A 5.7 no scale



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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

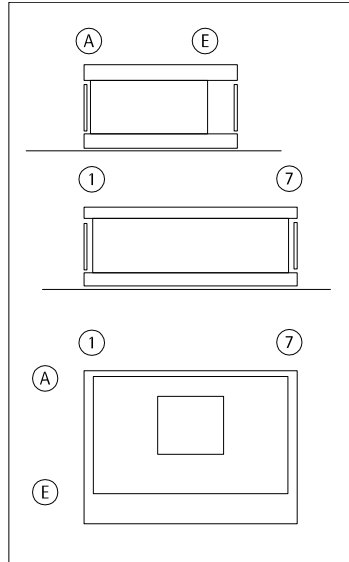
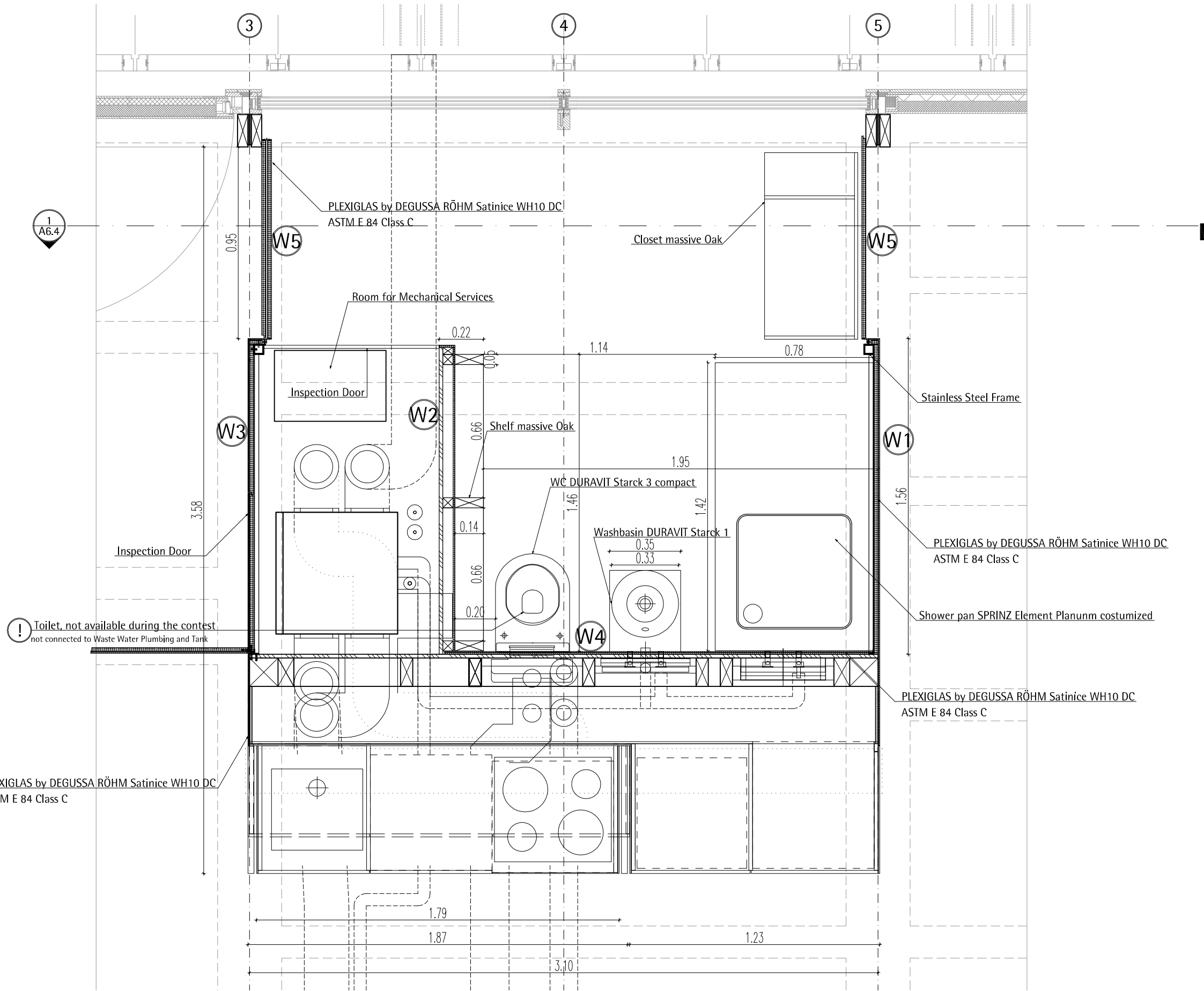
INDEX	DESCRIPTION	DATE	NAME
1	Deliverables	070707	tw

INDEX	DESCRIPTION	SCALE
1	Schematic Pv-Connection	
2	Schematic Pv-Connection	
3	Schematic Pv-Connection	
4	Schematic Pv-Connection	

DRAWING NUMBER  
**A 5.7**

COMPONENT  
**Louver**












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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


1	Floor Plan Max.	070707	THH
INDEX	DESCRIPTION	DATE	NAME

INDEX	DESCRIPTION	SCALE
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1	Floor Plan max. Space	1:20

DRAWING NUMBER

**A6.1**

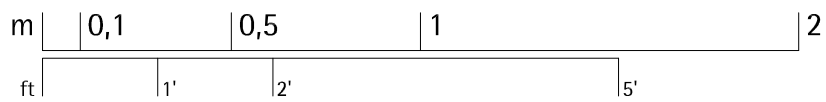
COMPONENT

**Core**

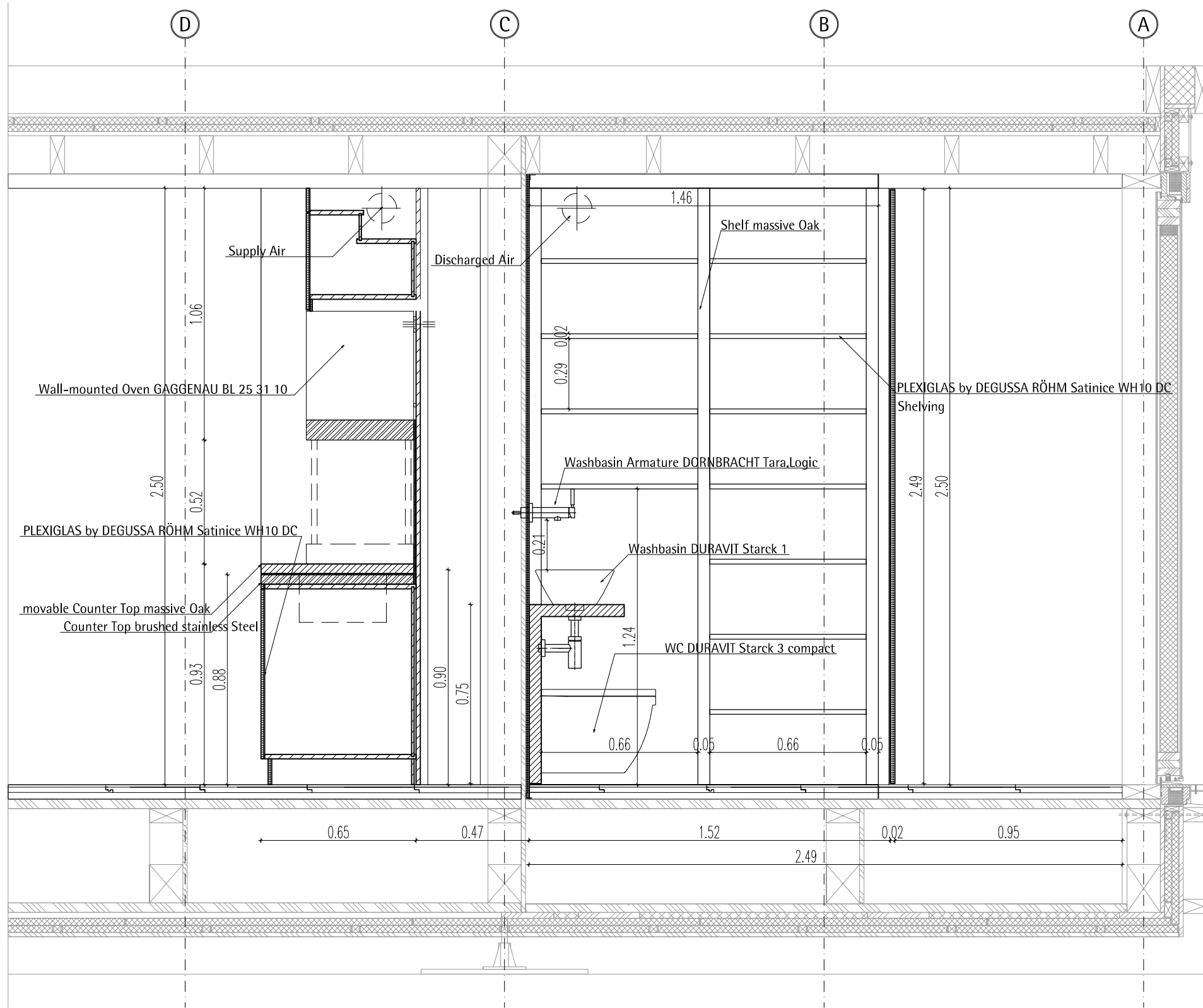
1

A6.1

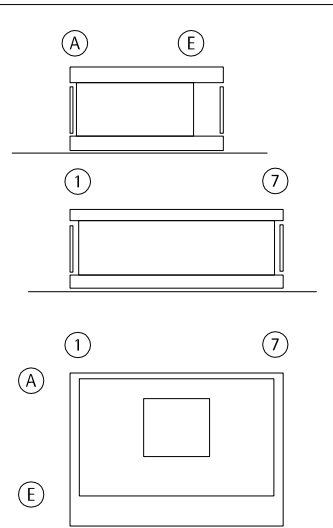
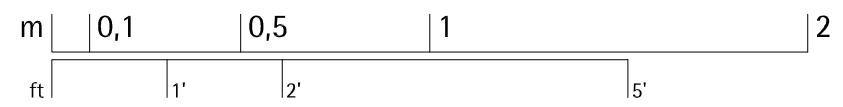
**Floor Plan maximized Space**  
M 1:20












**1**  
A6.3  
**Section North-South**  
M 1:20





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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Section North-South	1:20	

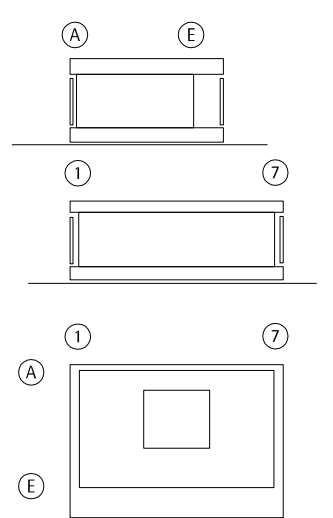
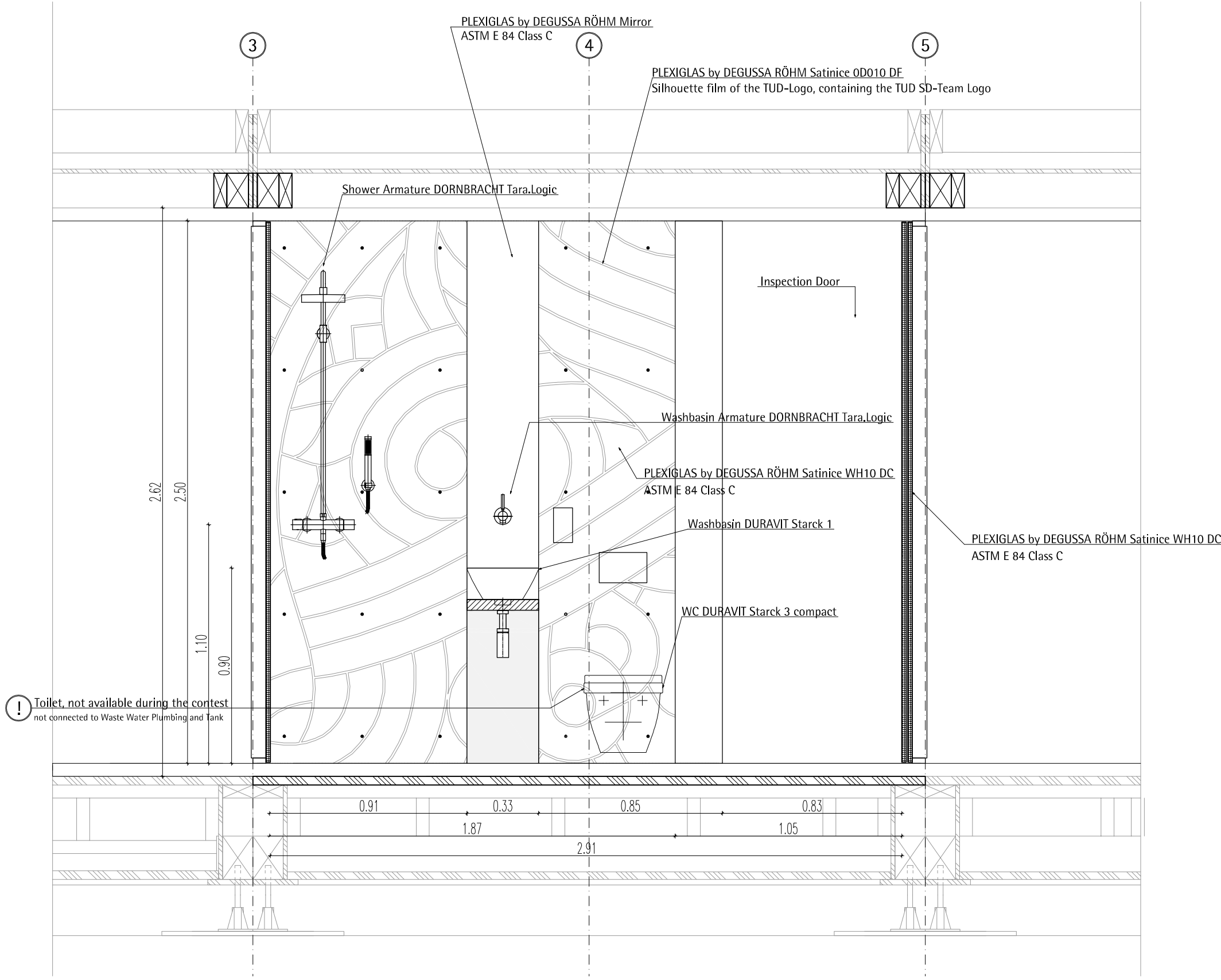
DRAWING NUMBER

**A6.3**

COMPONENT

**Core**







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- wood board, structural
- wood board, interior
- metal building material
- insulation
- joint sealant


INDEX	DESCRIPTION	DATE	NAME
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INDEX	DESCRIPTION	SCALE
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1	View Bathroom North	1:20

DRAWING NUMBER

**A6.4**

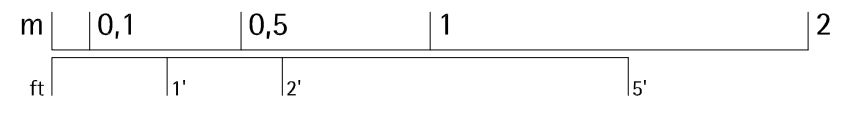
COMPONENT

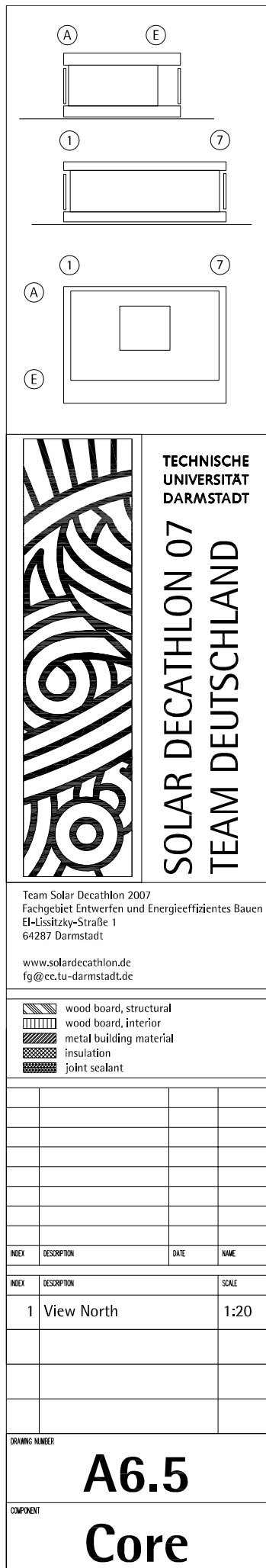
**Core**

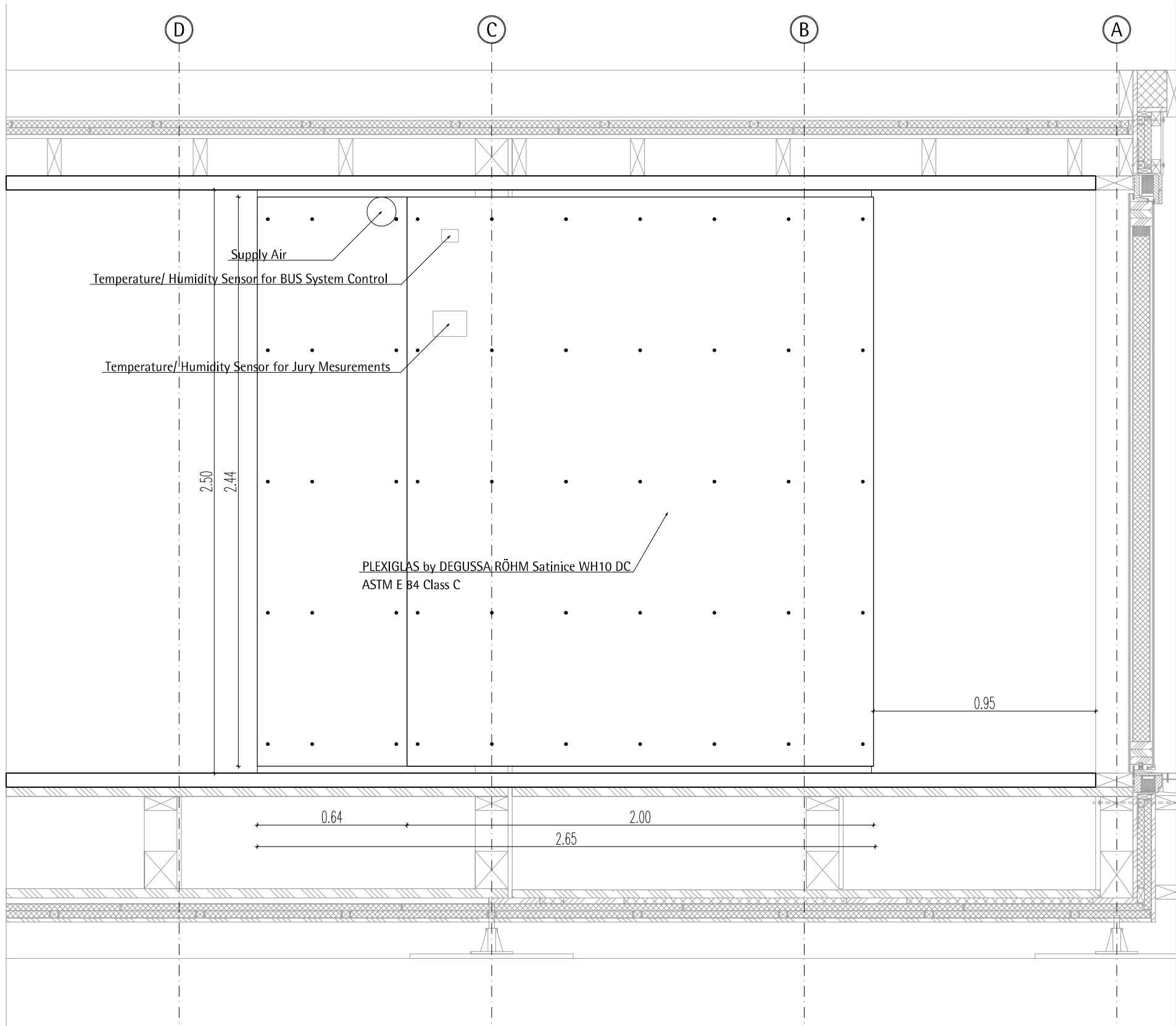
1

A6.4

**View Bathroom**  
M 1:20

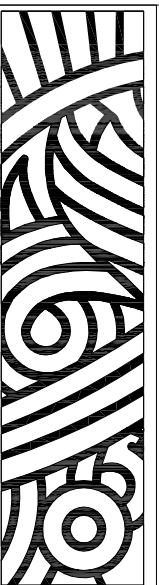
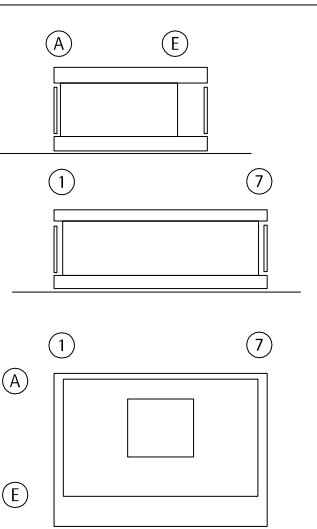
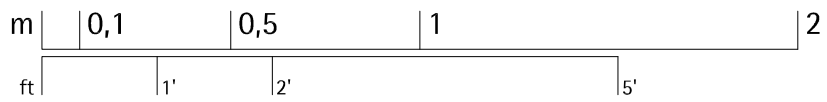






1  
A6.6

View East  
M 1:20



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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


INDEX	DESCRIPTION	DATE	NAME
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INDEX	DESCRIPTION	SCALE
1	View East	1:20

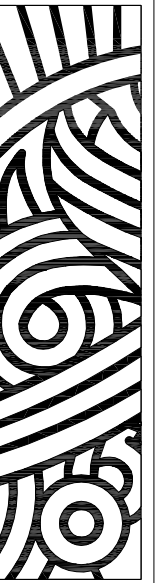
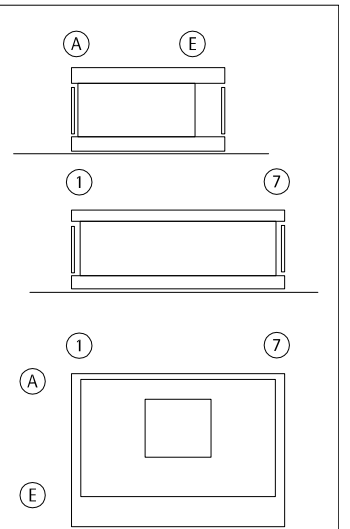
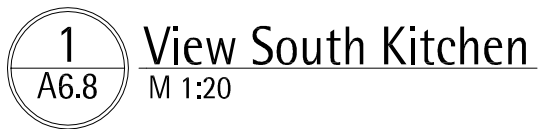
DRAWING NUMBER

**A6.6**

COMPONENT

**Core**



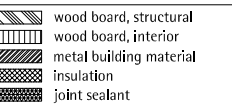


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[illegible]

INDEX	DESCRIPTION	DATE	NAME
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INDEX	DESCRIPTION	SCALE
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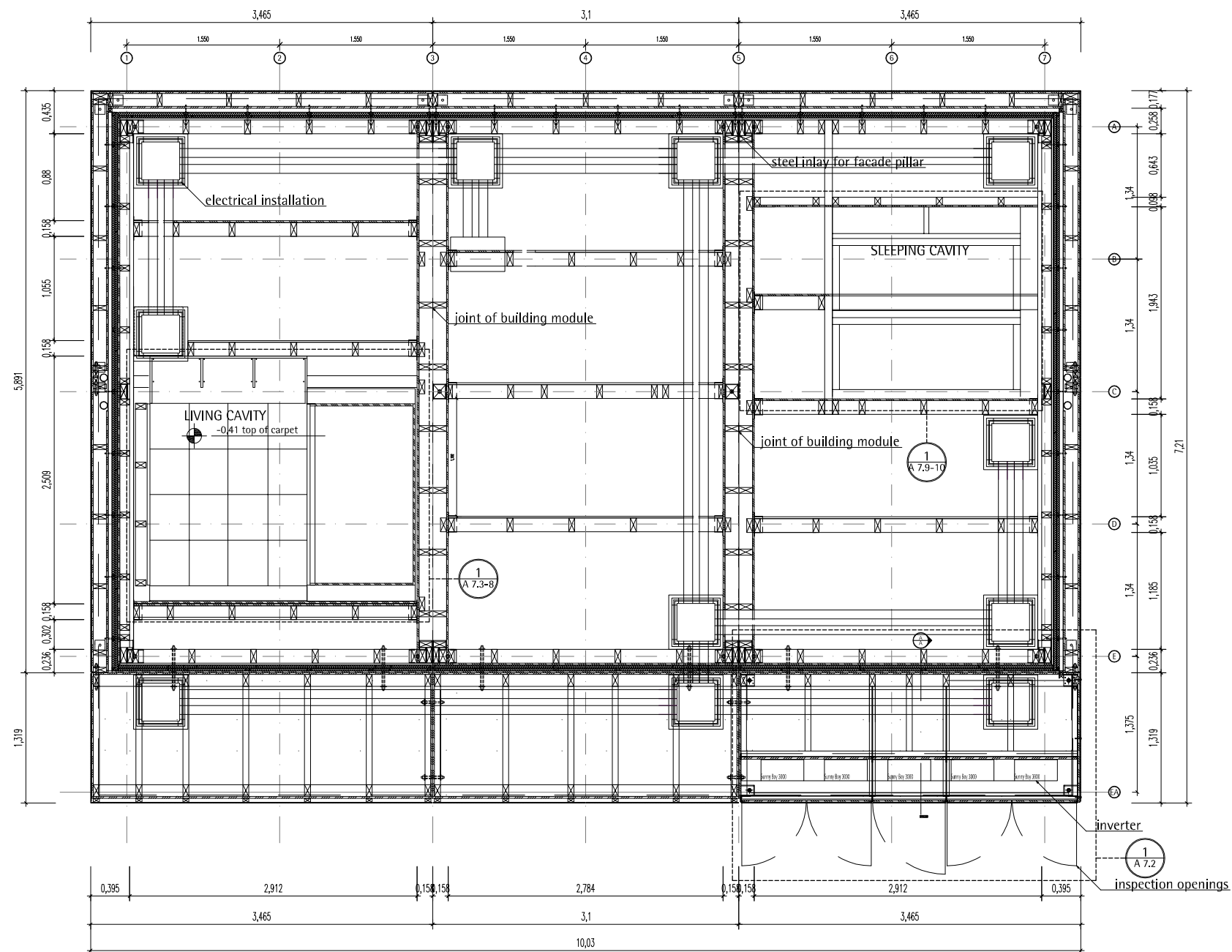
1	View South Kitchen	1:20
---	--------------------	------



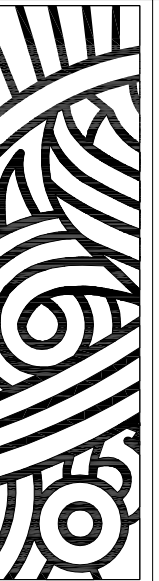
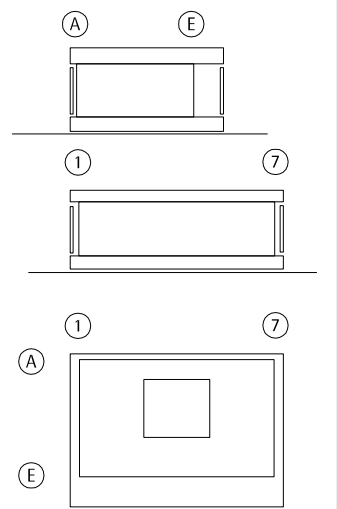
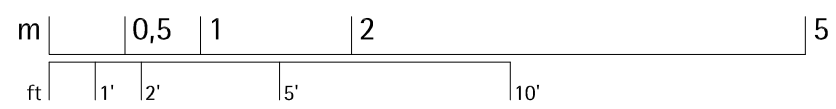
[illegible][illegible]

DRAWING NUMBER		

<b>A6.8</b>	
COMPONENT	<b>Core</b>



1  
A 7.0








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	wood board, interior
	metal building material
	insulation
	joint sealant

[illegible]

2	issued for deliverables	07.07.07	GS
1	issued for deliverables	02.03.07	GS
	DESCRIPTION	DATE	NAME

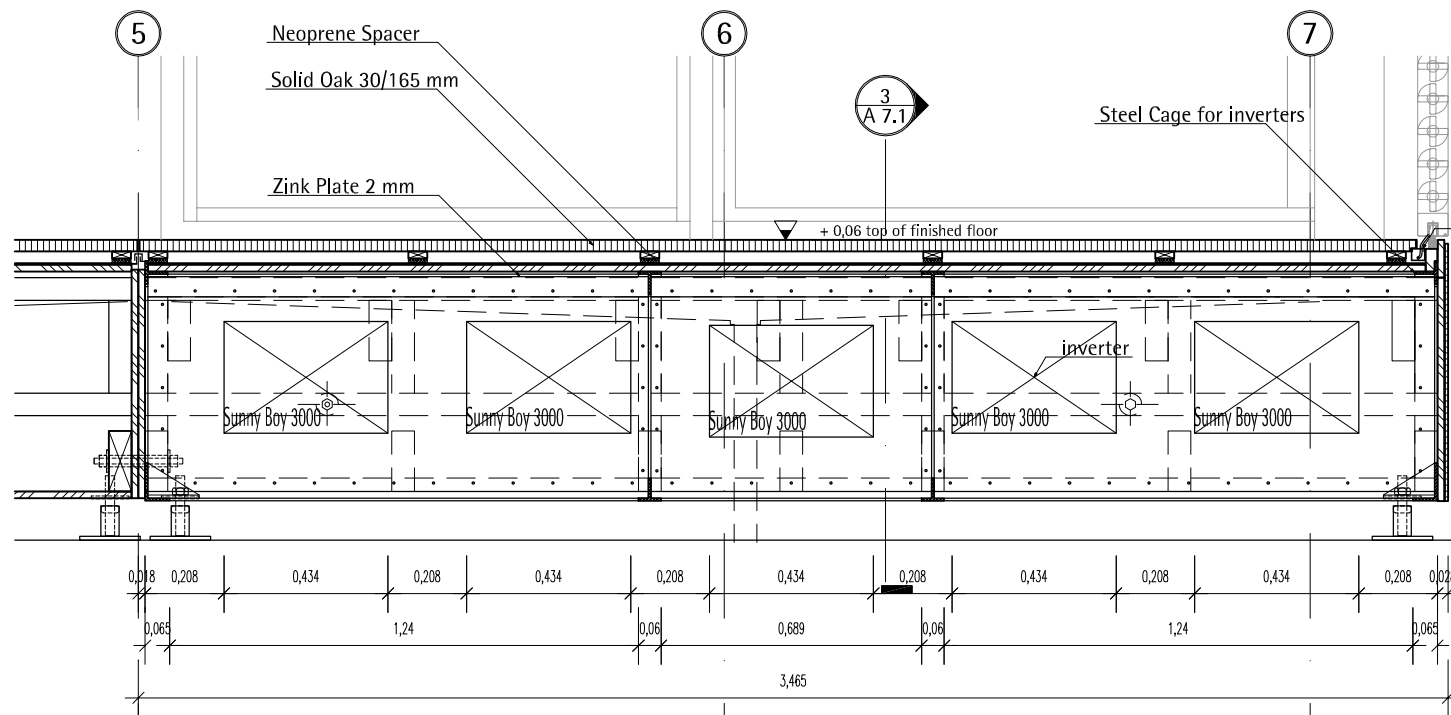
	DESCRIPTION	SCALE
1	Floor Plan Plattform	M 1:50

ING NUMBER

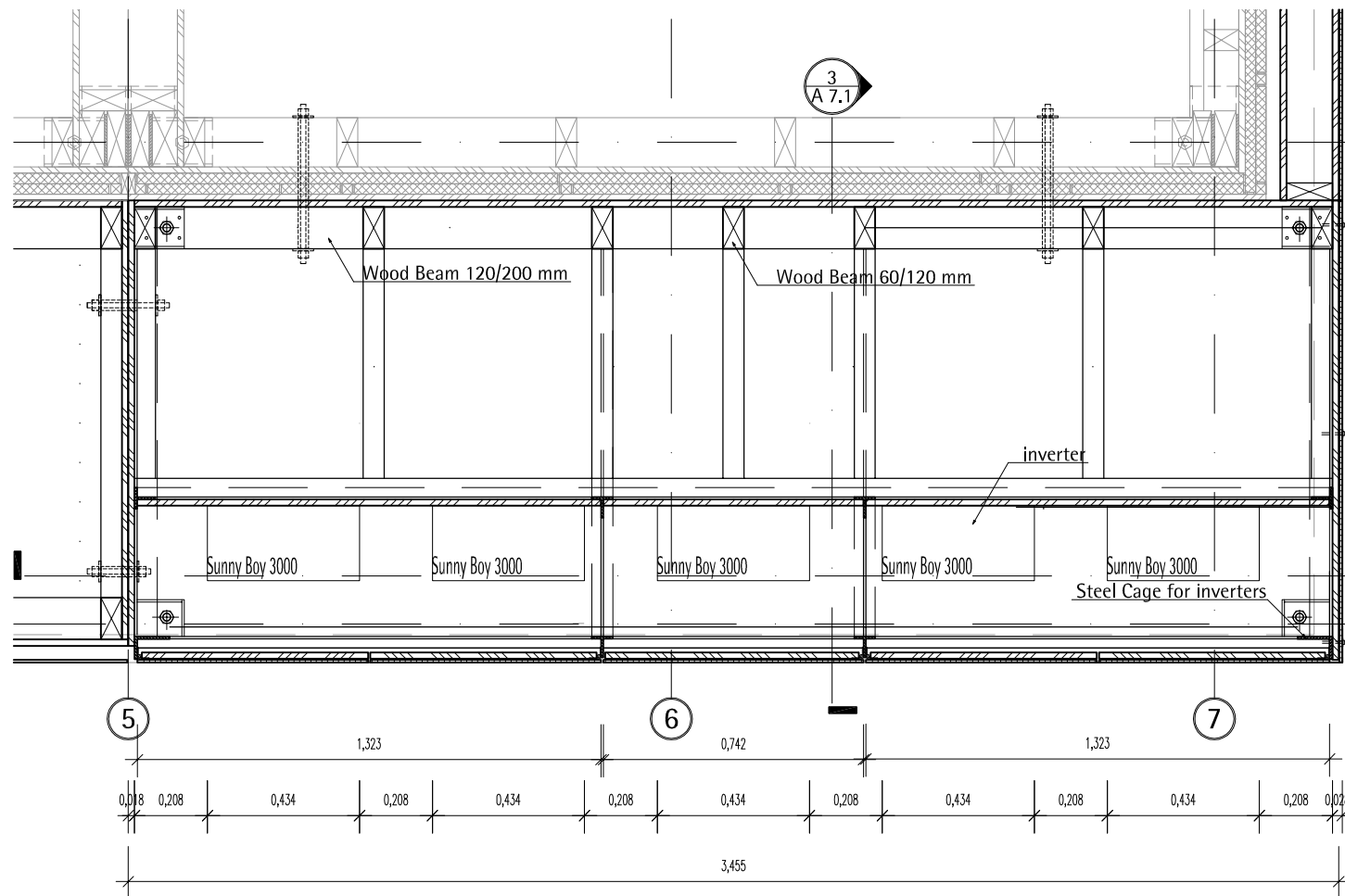
## A 7.0

ONENT

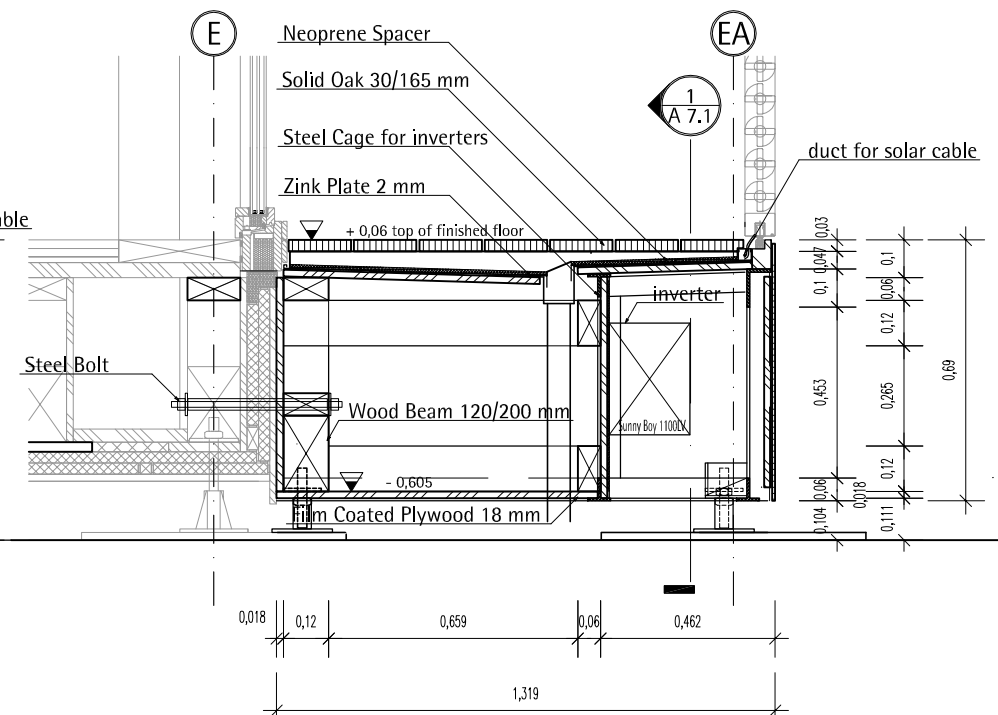
## Plattform



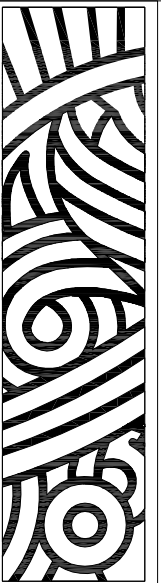
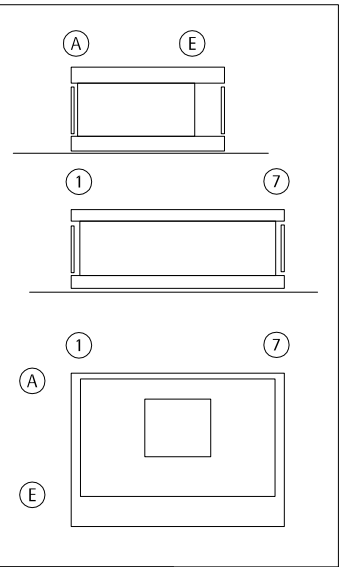
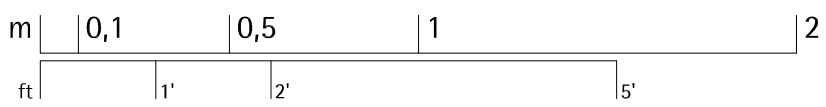
**2**  
A 7.1  
**Terrace South-West Long. Section**  
Scale 1:20



**1**  
A 7.1  
**Terrace South-West Hor. Projection**  
Scale 1:20



**3**  
A 7.1  
**Terrace South-West Cross Section**  
Scale 1:20



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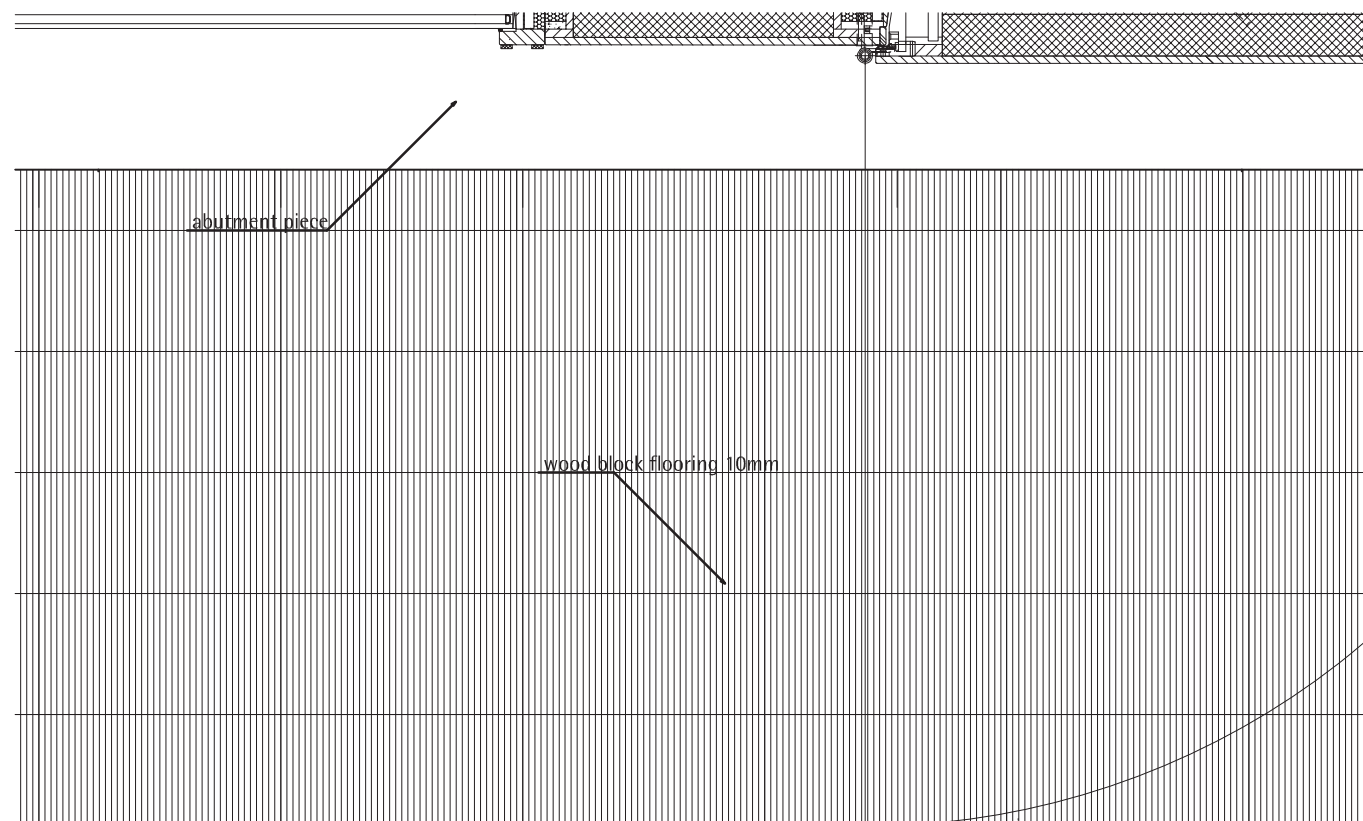
	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


2	Issued for Deliverables	07.07.07	GS
1	Issued for Deliverable	03.02.07	akd

INDEX	DESCRIPTION	SCALE
1	Horizontal Projection	M 1:20
2	Longitunal Section	M 1:20
3	Cross Section	M 1:20

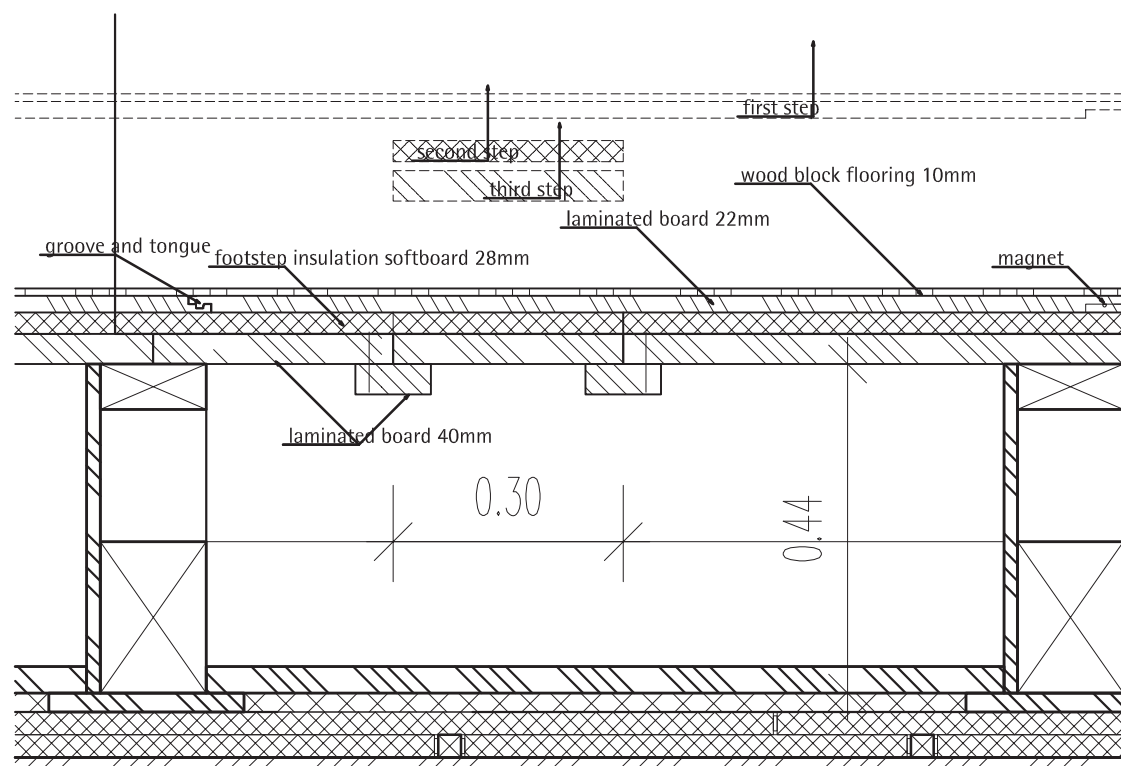
DRAWING NUMBER  
**A 7.1**  
COMPONENT  
**Plattform**



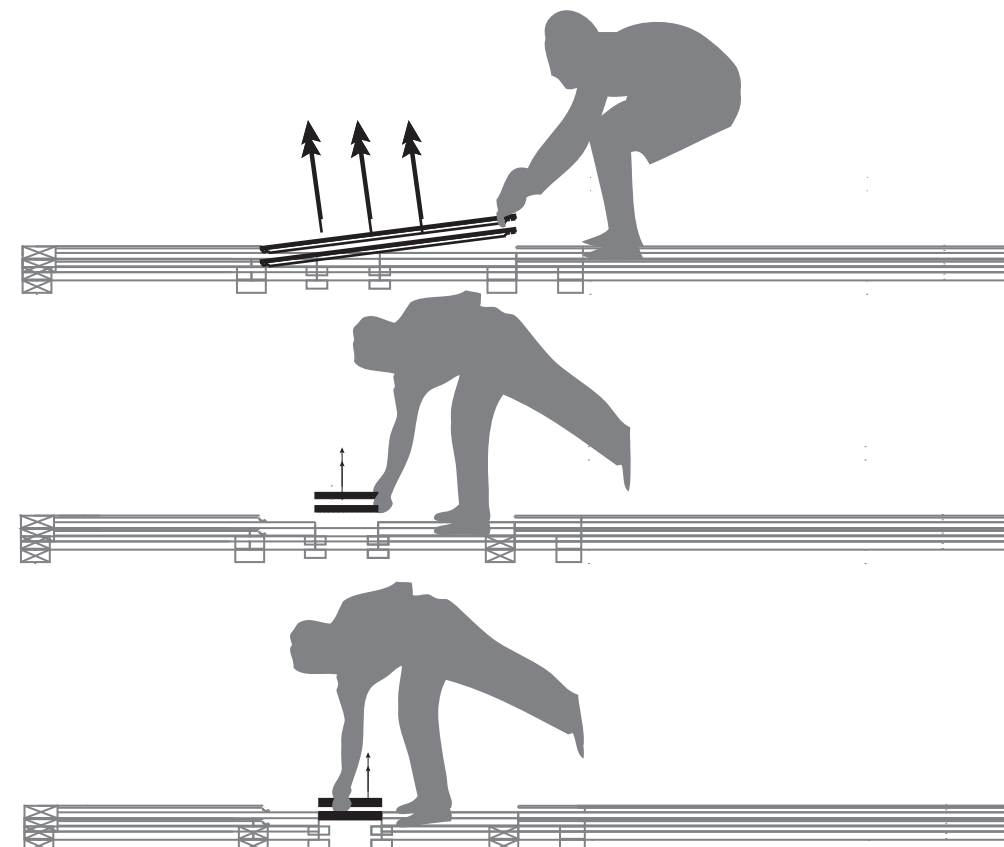
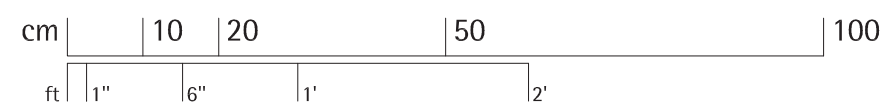


1  
A 7.2

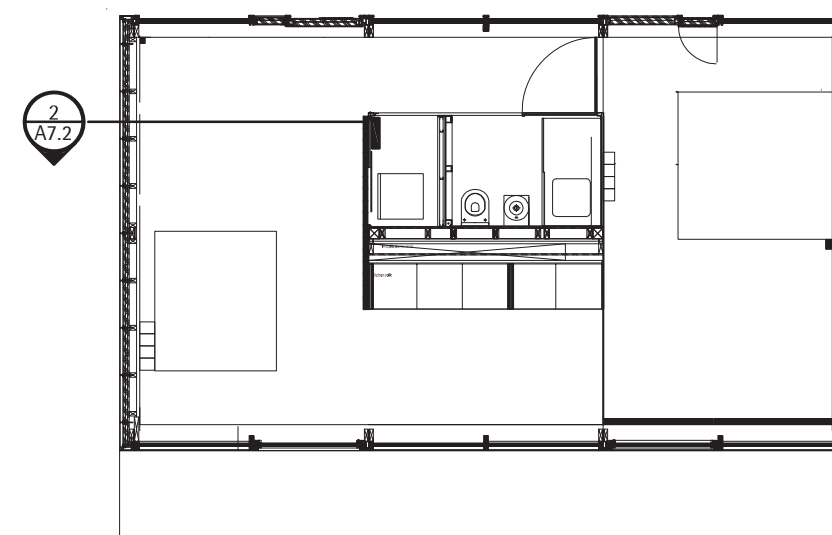
Top view  
Scale 1:10



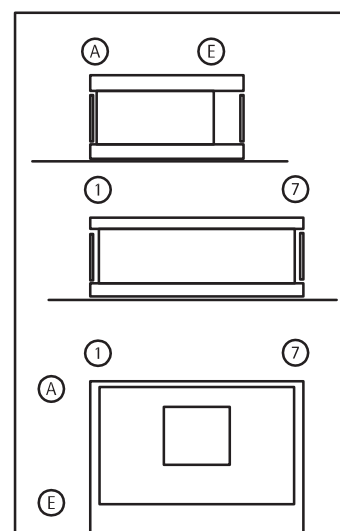
 **Cross section plattform**  
Scale 1:10



3  
A 7.2

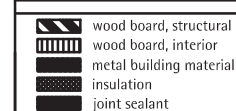


4 floor plan  
A 7.2  
Scale 1:100



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[illegible]

1	inspection scheme	080707	AK
<b>INDEX</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>NAME</b>

INDEX	DESCRIPTION	SCALE
1	Top View	1:10
2	Cross Section platform	1:10
3	function scheme	
4	floor plan	1:100

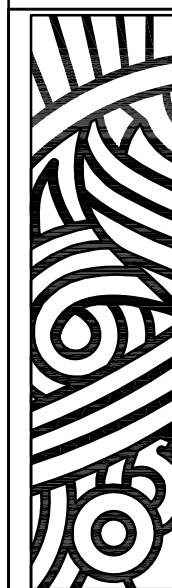
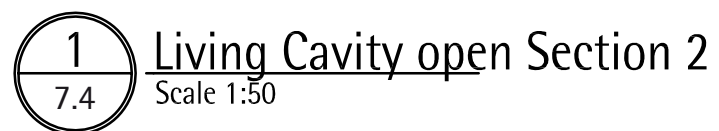
COATING INDEX

# A 7.2






## inspection s



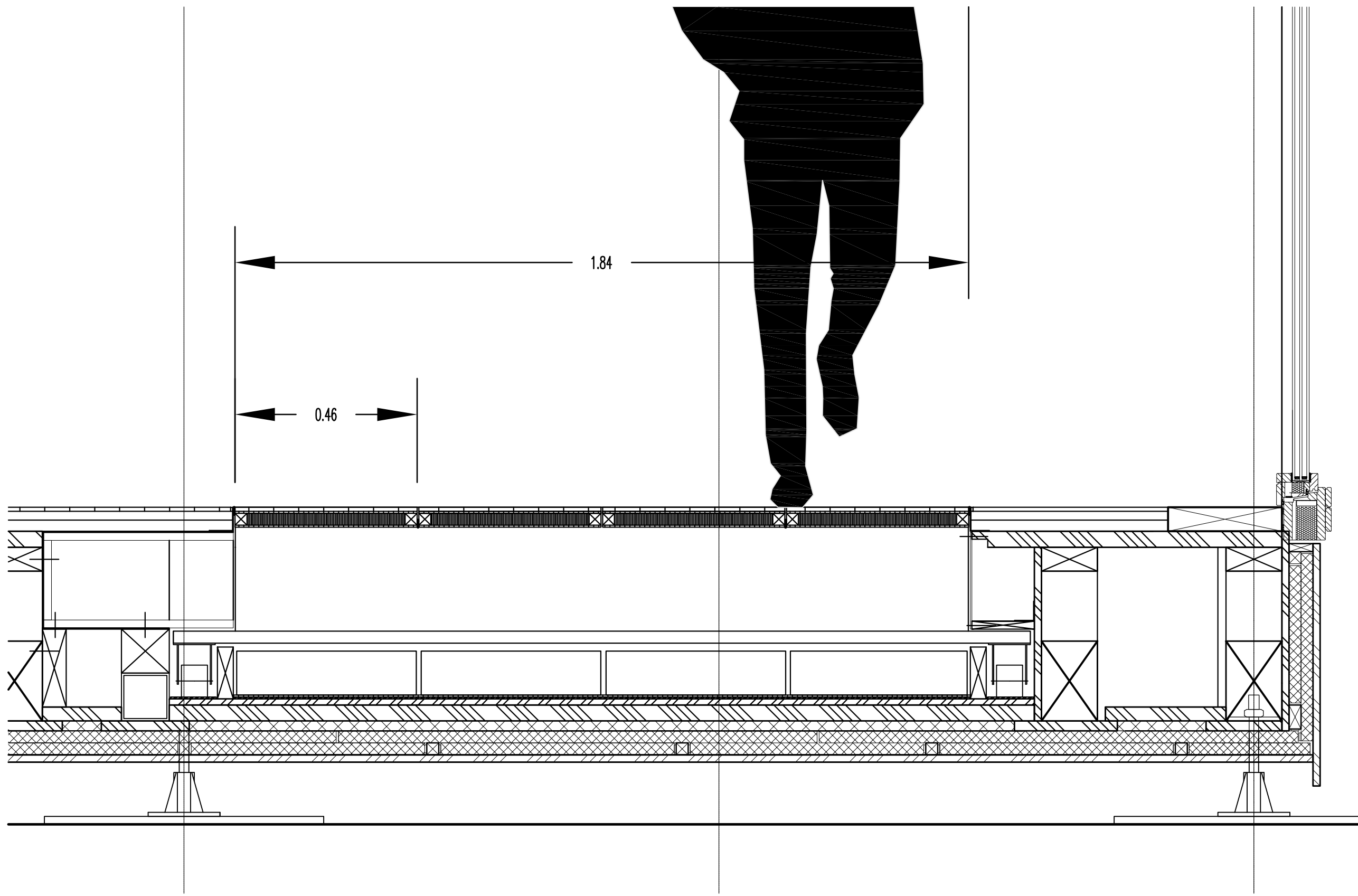
DRAWING NUMBER	<b>A 7.3</b>
COMPONENT	<b>Cavity</b>



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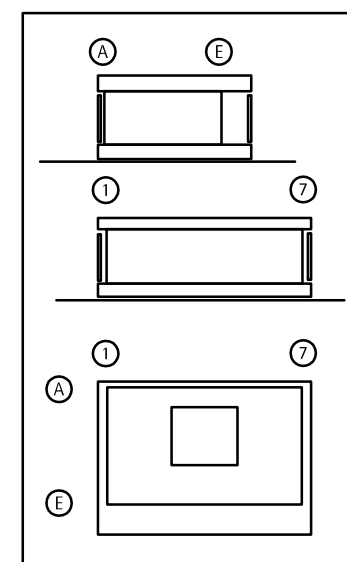
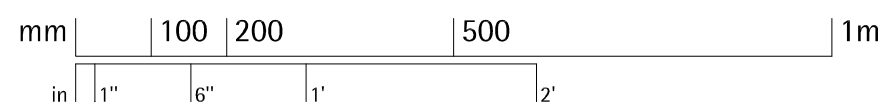
	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

BOARDING NUMBER	A 7.4
COMPONENT	Cavity



### Living Cavity closed Section 1

Scale 1:10








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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

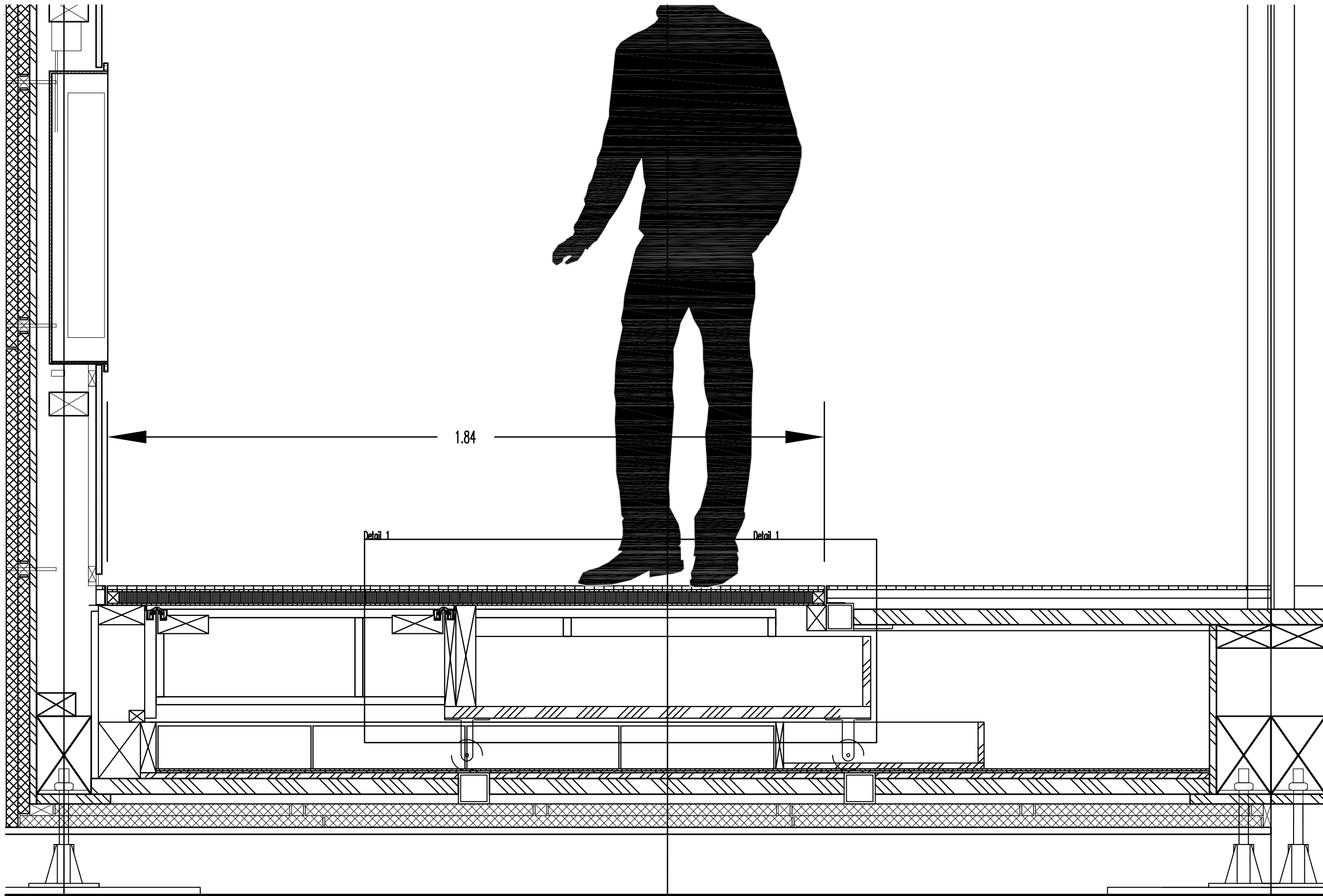
1	Living Cavity- closed	080707	HD
<b>INDEX</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>TIME</b>
<b>INDEX</b>	<b>DESCRIPTION</b>	<b>SCALE</b>	
1	Living Cavity- closed	1:10	

	<b>DRAWING NUMBER</b>

# A 7.5

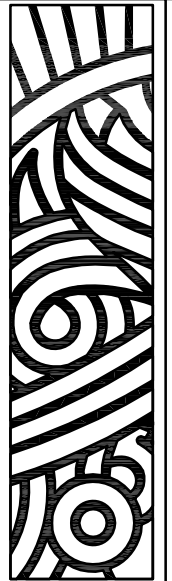
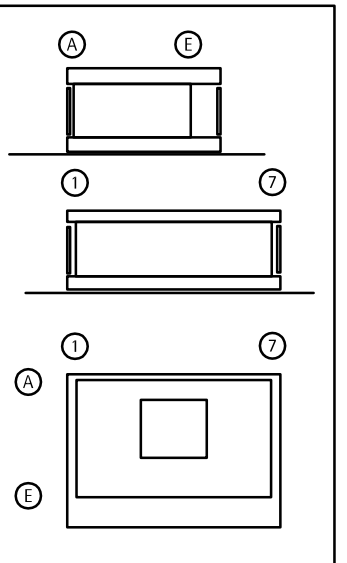
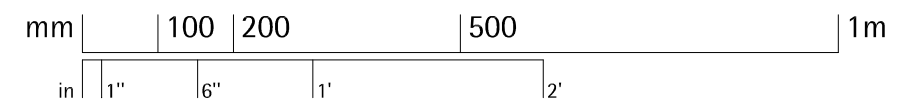
COMPONENT

## Cavity



## Living Cavity closed Section 2

Scale 1:50



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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

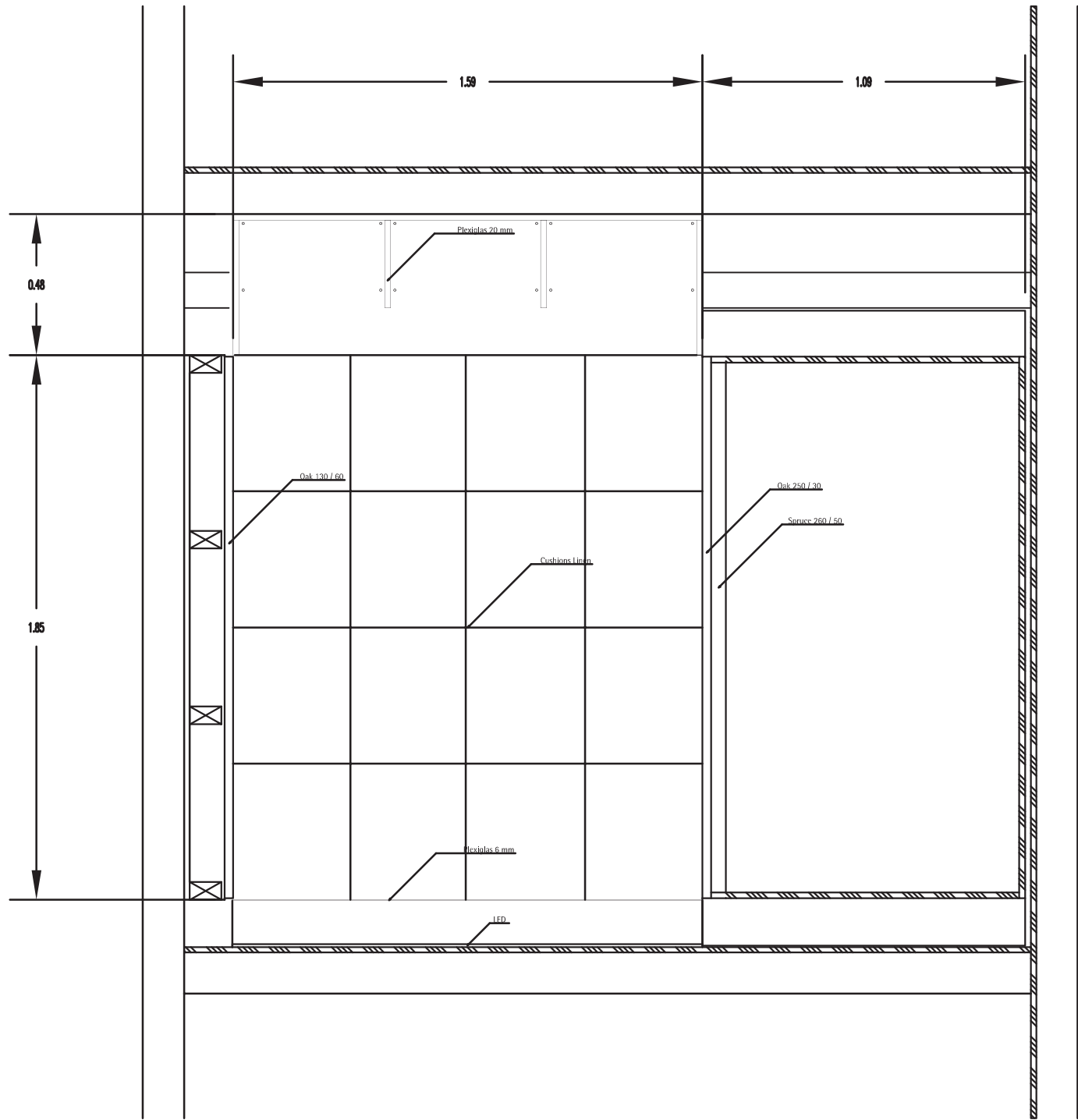
1	Living Cavity- closed	080707	HD
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Living Cavity-closed	1:10	

DRAWING NUMBER

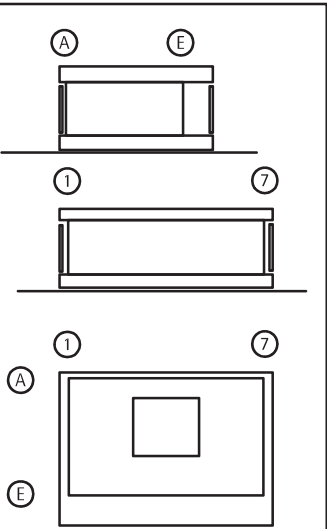
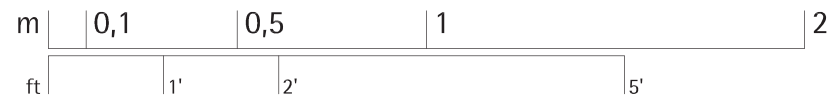
# A 7.6

COMPONENT

## Cavity



1 Living Cavity Plan  
A7.7 Scale 1:20







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	wood board, interior
	metal building material
	insulation
	joint sealant


1	Living Cavity Plan	080707	HD
INDEX	DESCRIPTION	DATE	DATE

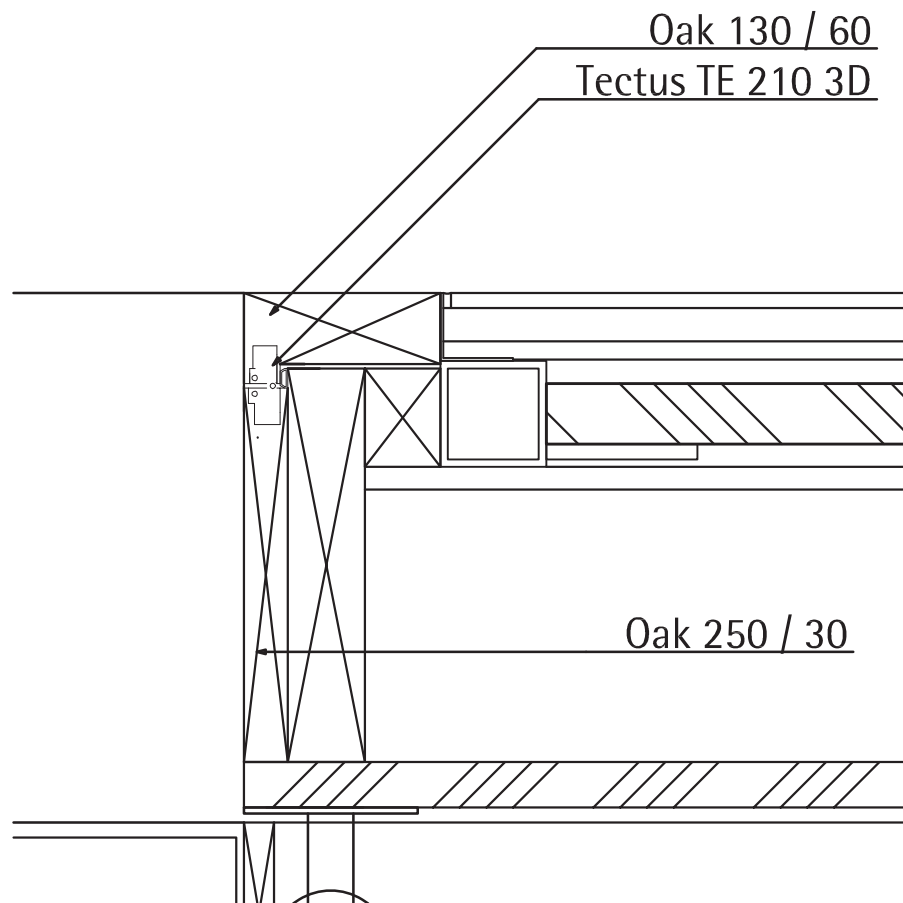
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1	Living Cavity Plan	1:20

DRAWING NUMBER

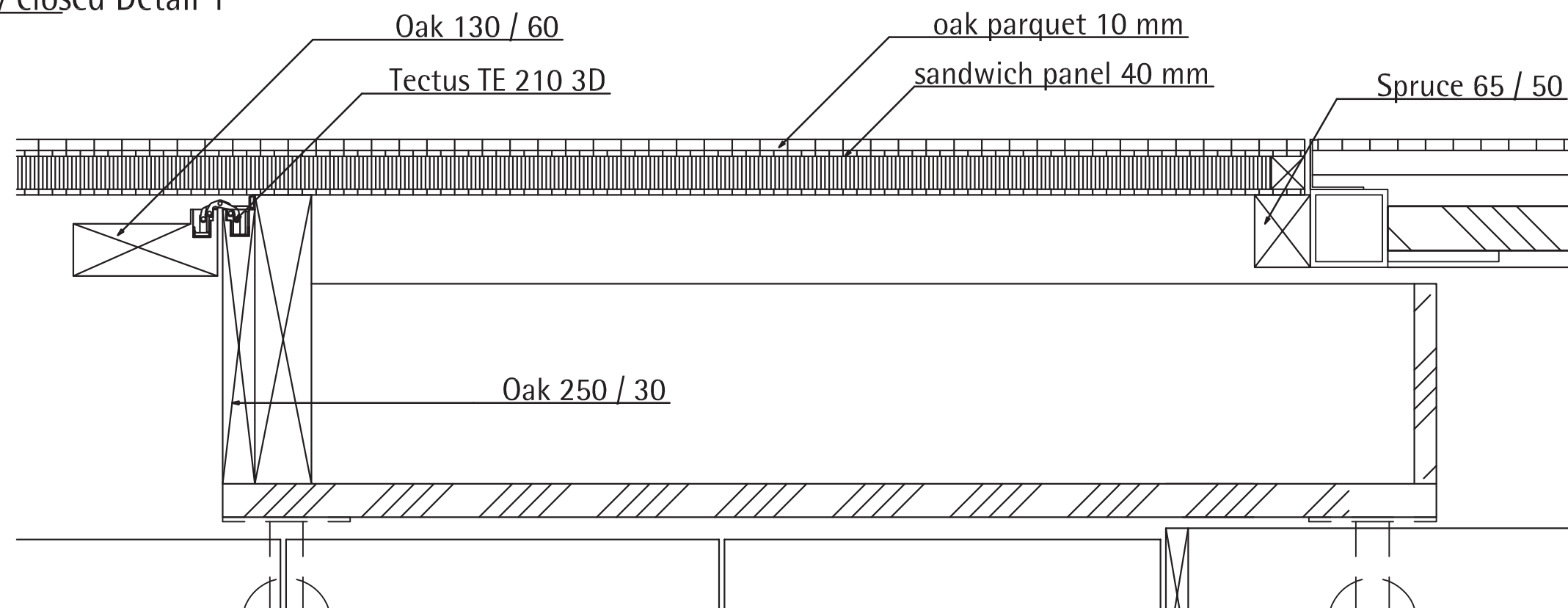
A 7.7

COMPONENT

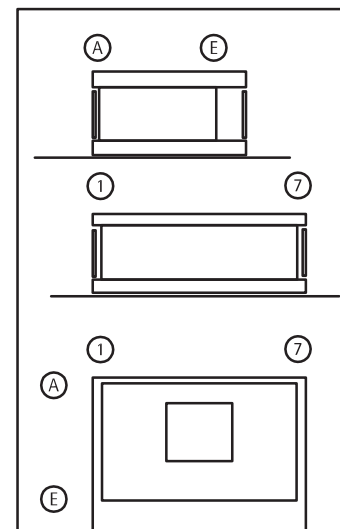
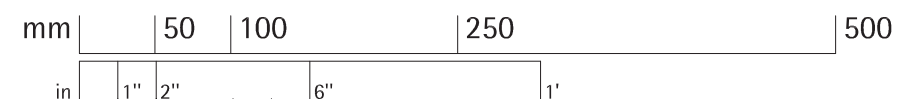
Cavity



**1**  
A7.8 **Living Cavity closed Detail 1**  
Scale 1:5



**2**  
A7.8 **Living Cavity open Detail 1**  
Scale 1:50



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fg@ec.tu-darmstadt.de

	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


1	Living Cavity Detail	080707	HD
INDEX	DESCRIPTION	DATE	BY

INDEX	DESCRIPTION	SCALE
1	Living Cavity closed Detail	1:5
2	Living Cavity open Detail	1:5

DRAWING NUMBER

A 7.8

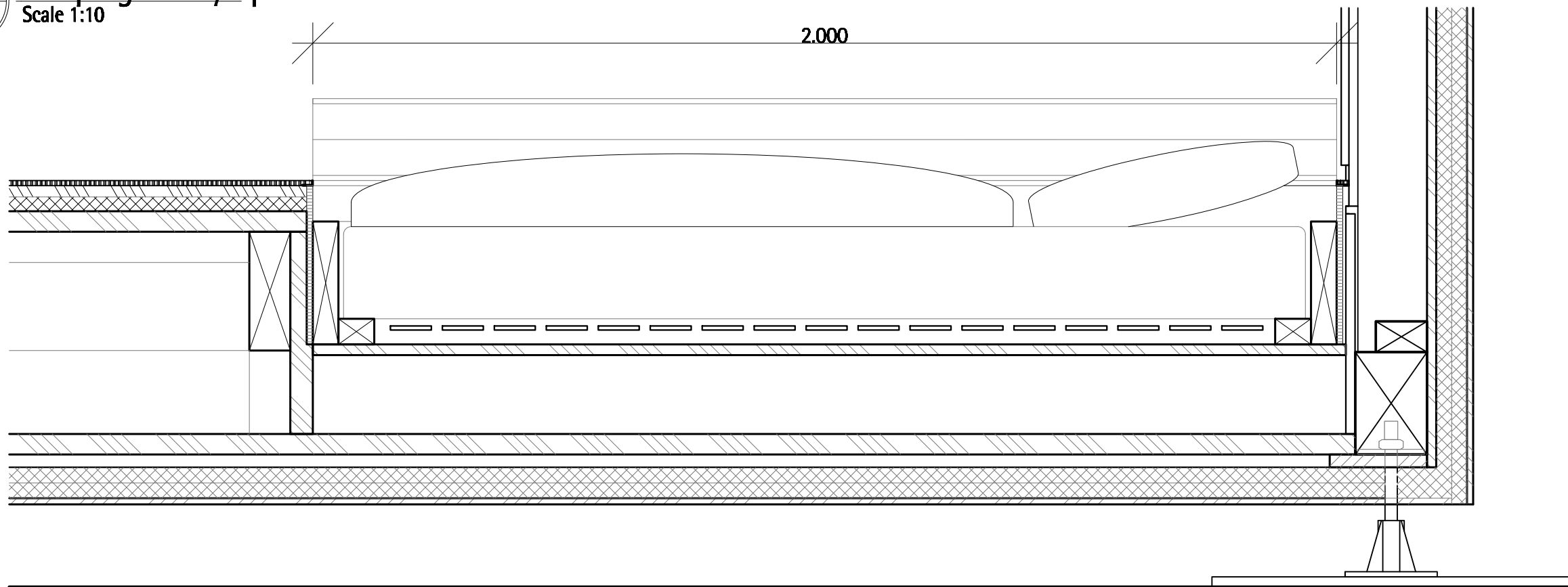
COMPONENT

Cavity

1  
A 7.9

Sleeping Cavity open

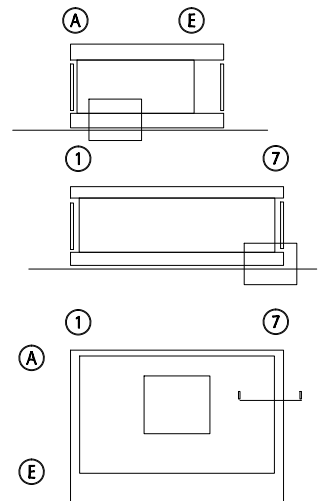
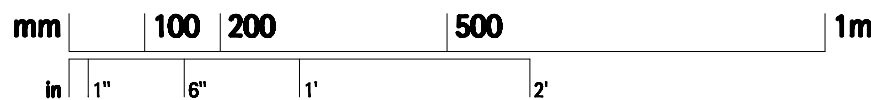
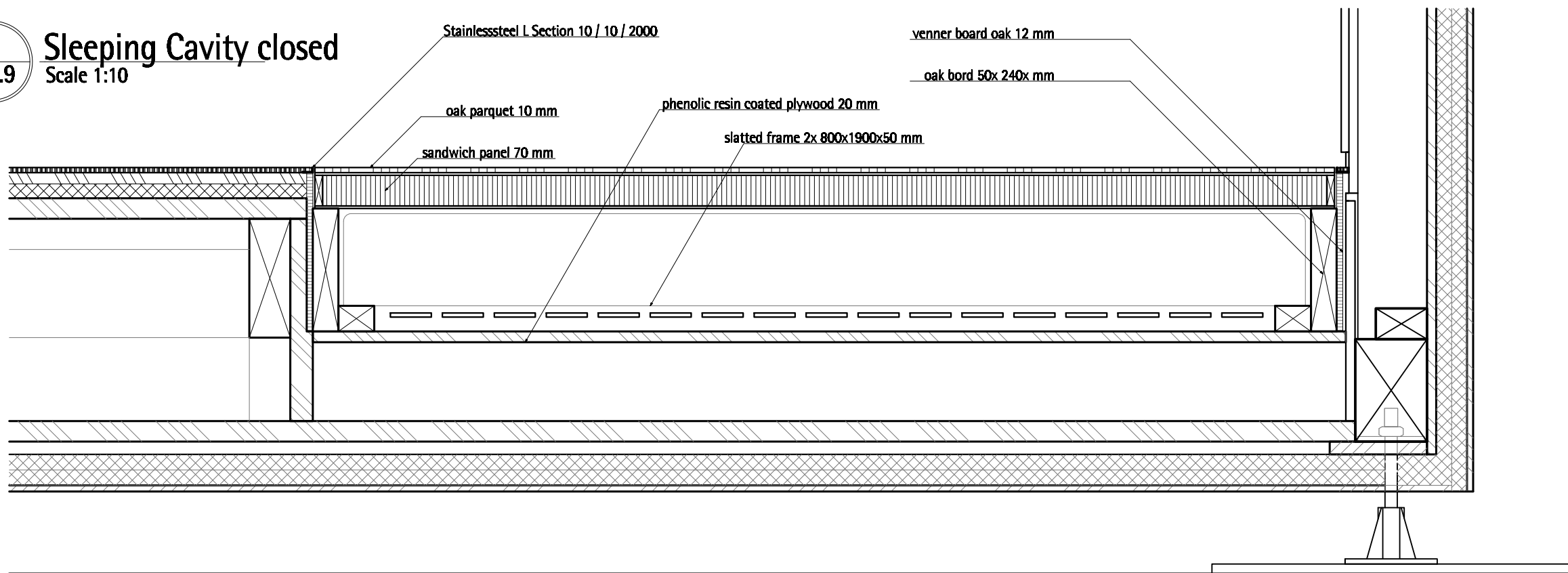
Scale 1:10



2  
A 7.9

Sleeping Cavity closed

Scale 1:10



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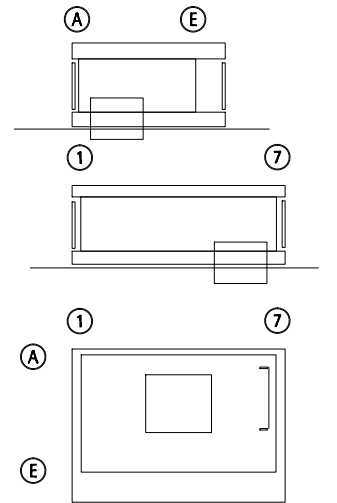
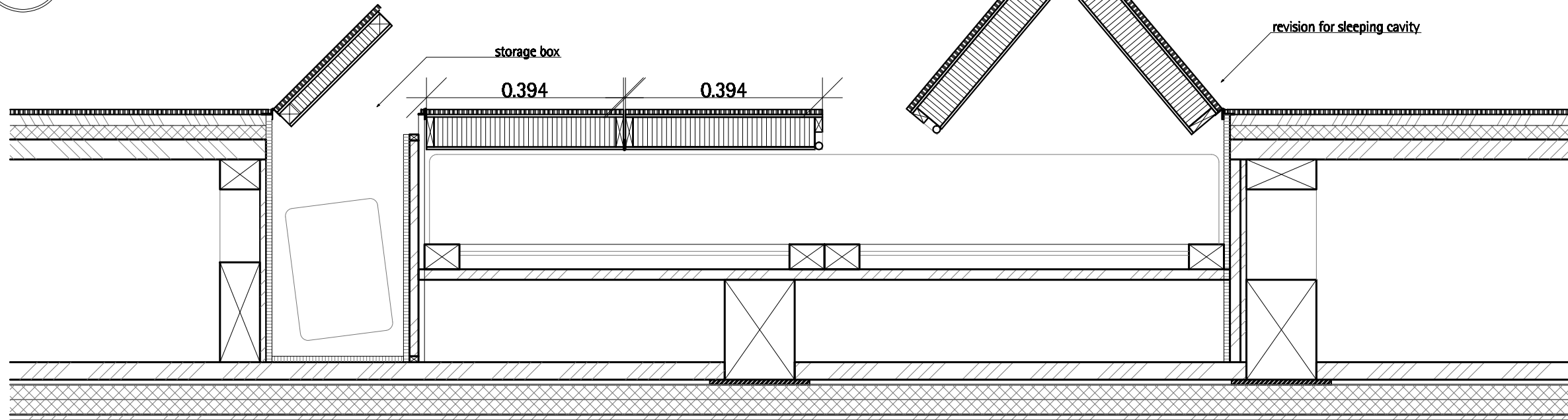
1	Section A Sleeping Cavity	07/07/07	FS
2	Section A Sleeping Cavity	07/07/07	FS
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Sleeping cavity open	1:10	
2	Sleeping cavity closed	1:10	

A 7.9

Platform



1 Sleeping Cavity open  
A 7.10 Scale 1:10

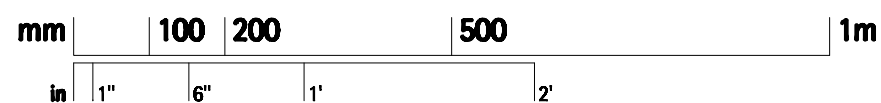
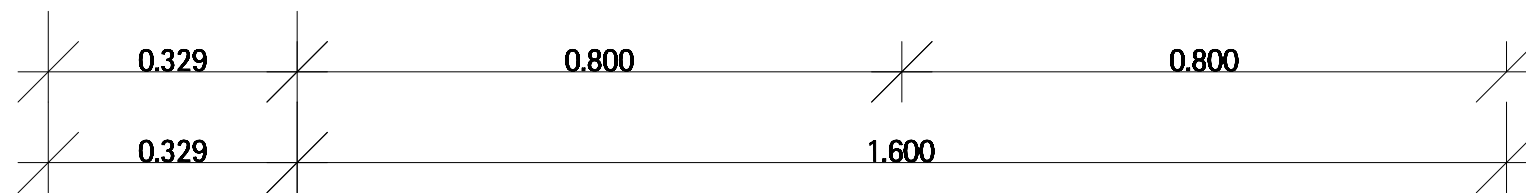
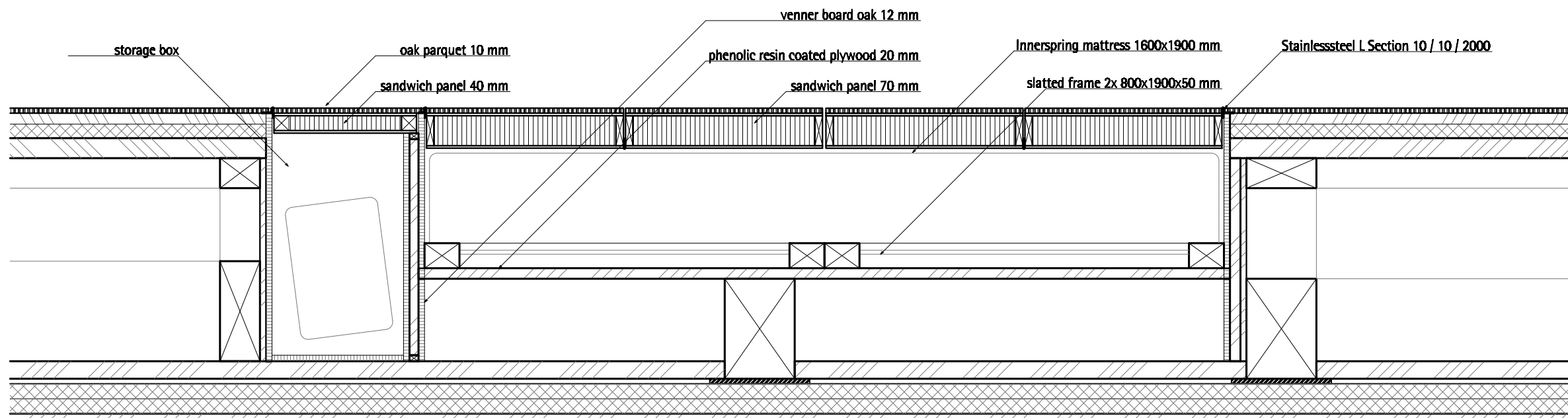


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1	Section B Sleeping Cavity	07/07/07	FS
2	Section B Sleeping Cavity	07/07/07	FS
NO.	DESCRIPTION	DATE	NAME
1	Sleeping cavity open		
2	Sleeping cavity closed		

**A 7.10**  
**Platform**

2 Sleeping Cavity closed  
A 7.10 Scale 1:10



## General

1. Structural drawings are to be read in conjunction with other related drawings including existing drawings, for dimensions, elevations and presence of openings, inserts, and electrical and mechanical elements.
2. Prior to commencement of work, all related drawings are to be compared. Confirm all dimensions and field measure/confirm all existing conditions. Any discrepancies are to be reported.
3. Design Loads

a. Specified uniform loads (u.n.o. on plan)

Roof (snow load based on)

per SDBC 0,75 kPa

per German Code 0,958 kPa  
(Snow Load Zone II  
Elevation Darmstadt 200m  
Roof < 30°)  
Post event condition is governing  
with design.

### Platform

Upper floor 2,39 kPa (SDBC) 0,4 kPa

Lower floor 2,39 kPa (SDBC) 0,3 kPa

per German Code

office 2,0 kPa  
+partitions 0,75 kPa  
= 2,75 kPa  
Post event condition is governing  
with design.

Superimposed dead loads are non-structural dead loads including architectural topping, partitions, roofing material, pavers, ceiling finishes and mechanical/electrical conduits/fixtures.

### b. Seismic and Wind

Seismic loads not to be considered (no requirements in the Solar Decathlon Building Code).

Max. Wind loads  
According to Solar Decathlon Building Code  
60 mph = 26,8 m/s  
Per German Code  
28,3 m/s  
Post event condition is governing with design.

These drawings show structural work required to meet provisions of the Solar Decathlon Building Code 2007 unless the related German Codes provide for more stringent requirements.

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wood board, structural wood board, interior metal building material insulation joint sealant	
Seal and Permit 	
1	Issued for delivery 01/03/07
1	General Notes
<b>S1.1</b> <b>Structure</b>	

## Wood Frame

1. Wood framing and heavy timber construction shall conform to German Wood Code DIN 1052: 1988-04 parts 1 & 2.
2. Unless noted otherwise, all concealed framing (joists, built-up beams, stud-framing, top- and bottomplates) shall be fir #2, built-up columns to be A oak #2.
3. Unless noted otherwise, all framing and nailing shall be in accordance with Part 1 of the Wood Code, Chamber 11 "Timber Panels".
4. Unless noted otherwise, built-up columns shall consist of 2 members. Minimum lintel shall be 2-52x160 (with steel reinforcement 2-8x140).
5. Joists are minimum 60x160 @ 625mm o.c. unless otherwise noted.
6. Interior bearing walls – unless otherwise noted:  
  
Minimum stud requirements are as follows:  
  
a. Platform      60x80 @ 625mm o.c.  
                         or 60x140 @ 625mm o.c.  
  
b. 1st floor      60x60 @ 625mm o.c.
7. Shear walls and exterior bearing walls – unless otherwise noted on drawings:  
  
Walls shall be constructed with 15mm OSB sheets (1 side) on wood studs. Refer to notes on wall sheathing below for nailing requirements of OSB.  
Ensure shear walls are connected to roof with minimum 120mm long wood screws @ 100mm o.c.
8. Sheathing – unless noted otherwise:  
  
All floor sheathing shall be beech plywood BFU 100 exterior grade conforming to EN 636, all wall sheathing to be Oriented Strand Board OSB conforming to EN 300.  
Place BFU sheets with face grain running perpendicular to supporting members in a staggered joint pattern.

9. Minimum sheathing requirements shall be as follows:  
  
Wall sheathing – 15mm OSB fastened with 75mm long staples type Q @ 100mm o.c. at sheet edges and @ 150mm o.c. at intermediate studs.  
  
Floor sheathing – 40mm BFU 100 plywood fastened with 90mm long wood screws @ 100mm o.c. at sheet edges and @ 150mm o.c. at intermediate supports.  
  
Roof sheathing – 18mm OSB fastened with 75mm long staples type Q @ 100mm o.c. at sheet edges and @ 150mm o.c. at intermediate supports.  
  
Substitution of staples with wood screws of 70mm length and 4mm diameter is acceptable.
10. Unless otherwise noted, use galvanized Simpson Strong-Tie connectors or approved equal where required. Use joist hangers for all flush framing. Hot dip galvanize all steel components in timber connections including connectors for exterior applications.

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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

Seal and Permit

NO.	DESCRIPTION	DATE
1	General Notes	

DRAWING NUMBER

# S1.2

COMPONENT

# Structure

## Custom heavy timber framing

1. Custom heavy timber framing shall conform to German Wood Code DIN 1052: 188-04 parts 1 & 2.
2. Sawn timber to be graded as indicated on drawings. All timbers to be seasoned to 15% +/- 3% moisture content before fabrication.
3. Heavy timber members to be shaped sawn timber as per drawings and to be free of staining, grade stamps, etc.  
Store timber under cover and protect from staining at all times with proper drainage.
4. All steel members and hardware to be painted in accordance with Planner's specifications or hot-dipped galvanized prior to shipping to site. Unless special precautions are taken to protect steel from rusting, hot-dip galvanize all steel connections and fasteners in contact with timber.
5. All work to be architectural quality, including precision cutting and fitting, steel welding, etc.  
Take precautions to avoid damage and staining of wood during construction.
6. Work points are as noted on drawings.
7. Sheathing (unless noted otherwise):  
  
All floor sheathing shall be beech plywood BFU 100 exterior grade conforming to EN 636, all wall sheathing to be Oriented Strand Board OSB conforming to EN 300. Place sheets as indicated on plans.
8. Where light gauge connections are required, use galvanized Simpson Strong-Tie connectors or approved equal.

	
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<p>wood board, structural wood board, interior metal building material insulation joist/beam</p>	
<p>Seal and Permit J.A. STAHL MEMBER 13657 07 03 02 YR. MON. DAY SASKA SCHREWAN</p>	
1	Issued for Construction
NO.	SECTION
NO.	SECTION
1	General Notes
<p><b>S1.3</b></p> <p><b>Structure</b></p>	

Structural Steel/Metals

1.

All structural steel work shall conform to German Steel Code 1993: 2007-02.
2.

All structural steel material shall conform to German Steel Code 1993: 2007-02 with the following grades:

Rolled and HSS Shapes	St 37-2
Plates and bars	St 37-2
Reinforcing bars welded to structural steel	St 37-2
Pipes	St 37-2
Bolts	8.8
3.

Unless otherwise noted, apply one shop coat of primer to all steel work.
4.

Where required, all hot dip galvanizing shall conform to European Code DIN EN 13858.
5.

Unless noted otherwise, design structural steel connections for minimum half the shear or compression capacity of the members connected. Bolted connections shall consist of a minimum 2-16mmø bolts with 10mm connector plate, unless noted otherwise.
6.

Provide cap plates at open ends of HSS tubes (seal weld all around). Provide drain hole at base of HSS tube.

Secondary Components and their Attachments

1.

Secondary Components include but are not limited to the following: (Refer to all documents for secondary components)

a)Architectural components such as guard and hand rails, flag posts, canopies, ceilings, etc.

b)Site work elements exterior to the base building such as landscaping components, lamp standards, signs, and civil work.

c)Cladding, window mullions, glazing and store fronts.

d)Skylights and glass canopies.

e)Attachments and bracing for electrical and mechanical components.

f)Glass block including attachments.

g)Architectural precast and precast cladding.

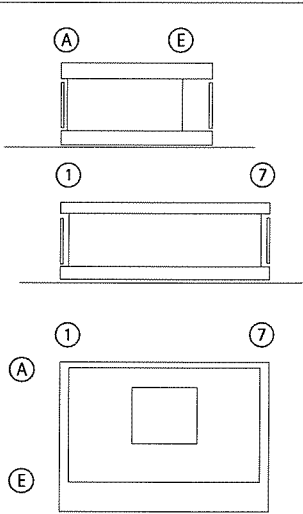
h)Window washing equipment and attachments.

i)Interior and exterior light gauge steel stud walls.

j)Roofing material.

k)Parking slab membrane.
2.

Secondary Components shall be designed in accordance with the Solar Decathlon07 Building Code.








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
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-  wood board, structural

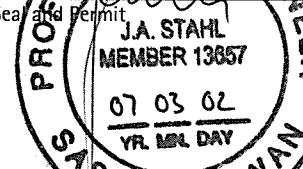
 wood board, interior

 metal building material

 insulation

 joint, paint

Seal and Permit



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NO.	DESCRIPTION	DATE	NAME
NO.	DESCRIPTION	SCALE	
1	General Notes		

DRAWING NUMBER

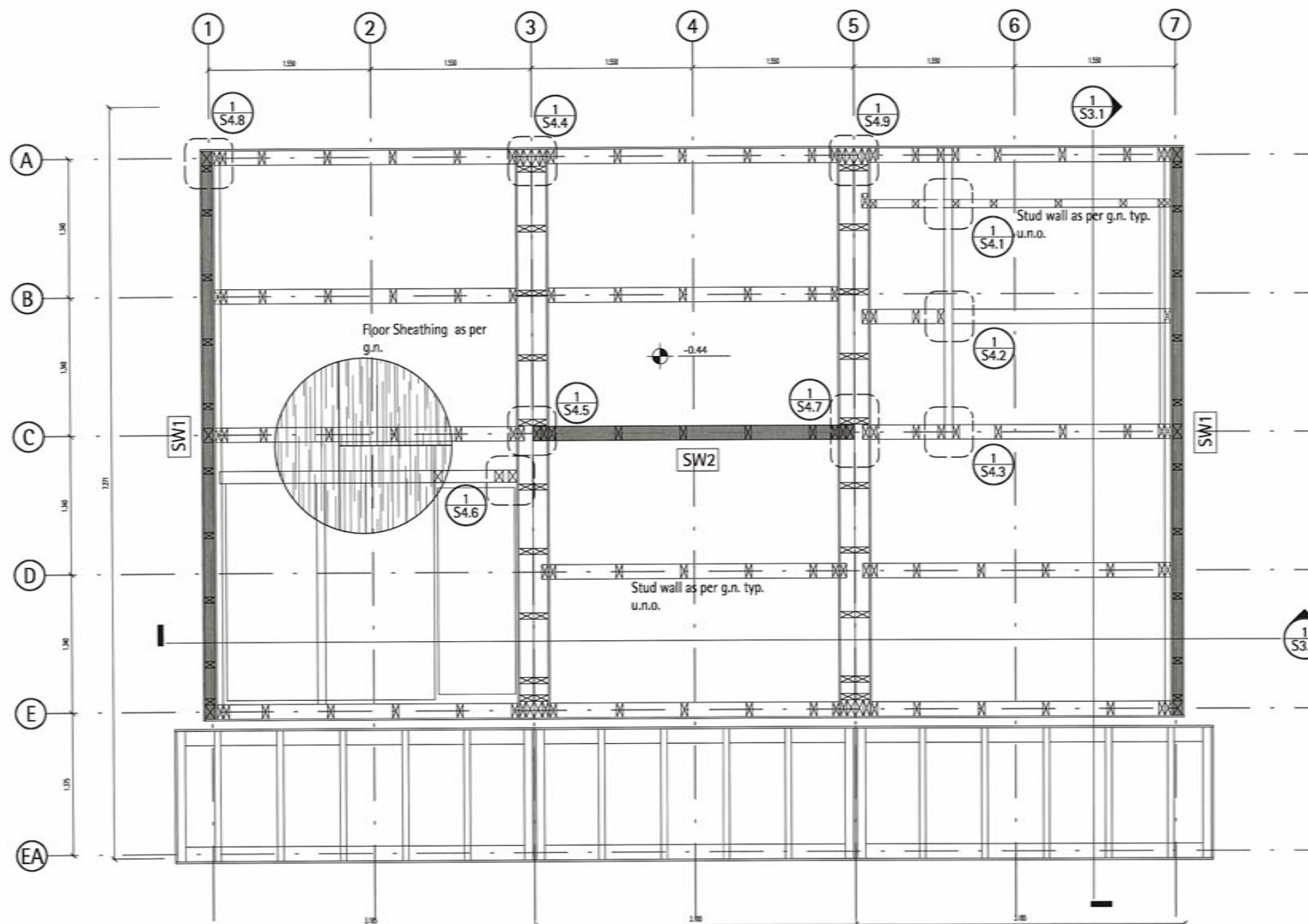
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COMPONENT

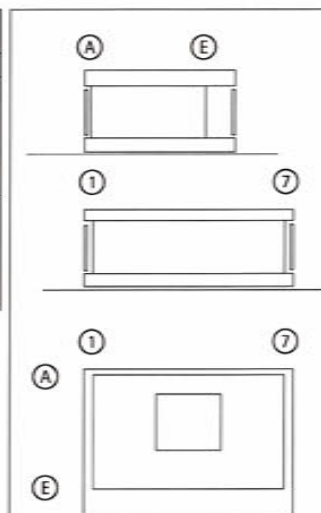
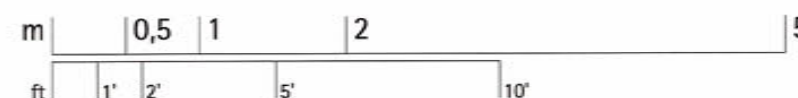
Structure



Shearwall Schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @ sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @ sheet edges and 100 o.c. @ intermediate studs. Blocking not required.



1 Platform Framing  
S2.1 Scale 1:50



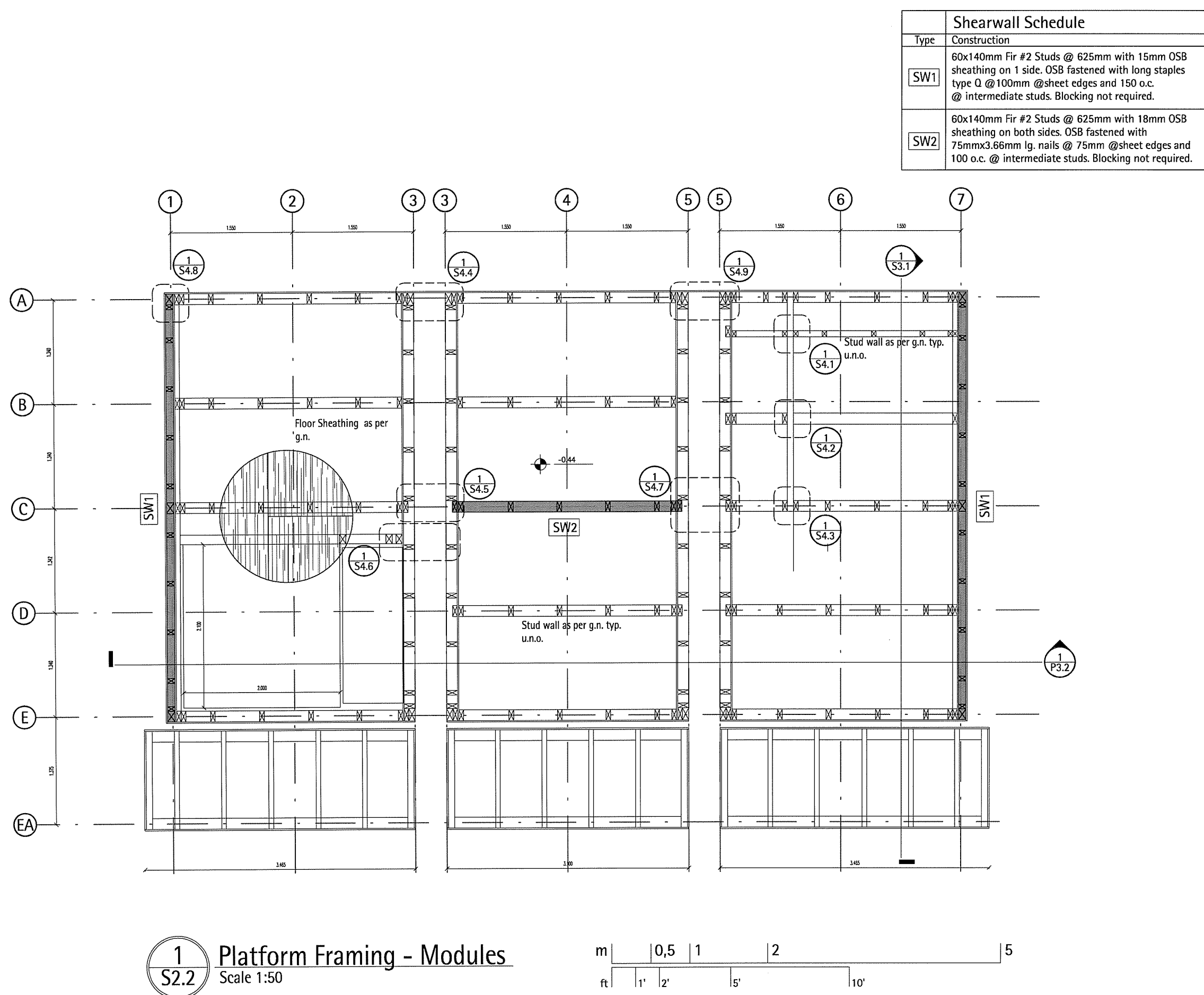
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wood board, structural  
wood board, interior  
metal building material  
insulation  
joist

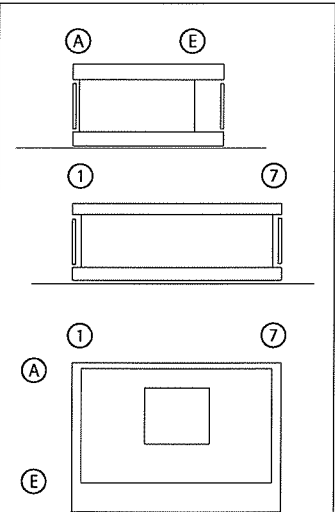
Seal and Permit  
J.A. STAHL  
MEMBER 13657  
07 03 02  
YR. MM. DAY  
KATCHEWAN

NO.	DESCRIPTION	SCALE
1	Platform Framing	1:50

DRIVING NUMBER  
**S2.1**  
COMPONENT  
**Structure**



Shearwall Schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @sheet edges and 100 o.c. @ intermediate studs. Blocking not required.





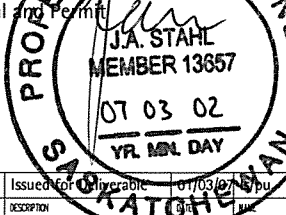
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- wood board, structural
- wood board, joist
- metal building material
- insulation
- glue sealant

Seal and Permit

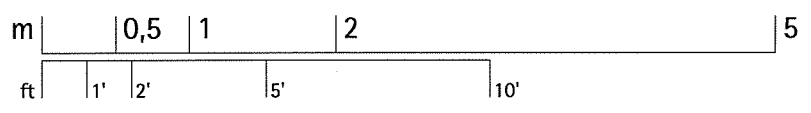


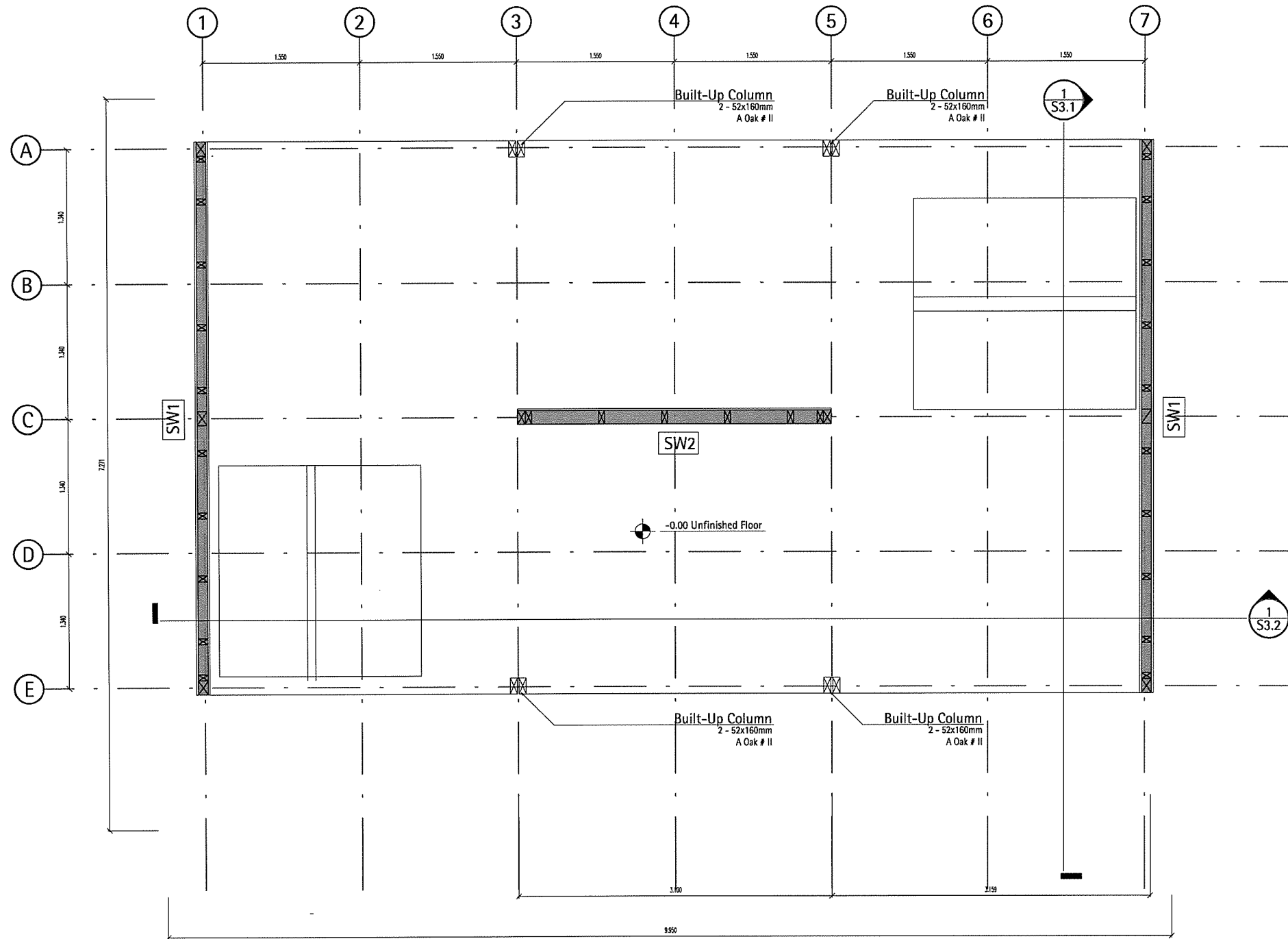
J.A. STAHL  
MEMBER 13657  
07.03.02  
YR. MNL. DAY

INDEX	DESCRIPTION	SCALE
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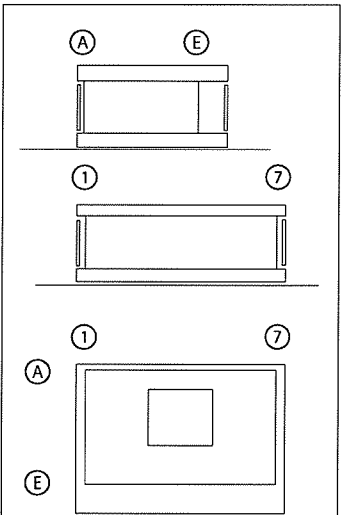
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**S2.2**  
COMPONENT  
**Structure**


**1**  
**S2.2** Platform Framing - Modules  
Scale 1:50





Shearwall Schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @sheet edges and 100 o.c. @ intermediate studs. Blocking not required.










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	wood board, structural
	wood board, interior
	metal building material
	insulation
	floor joist

Seal and Permit  
J.A. STAHL  
MEMBER 13657  
07 03 02  
YR. MON. DAY  
PROFESSIONAL ENGINEER  
SOLAR DECATHLON

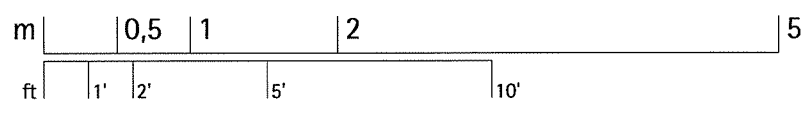
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INDEX	DESCRIPTION	SCALE
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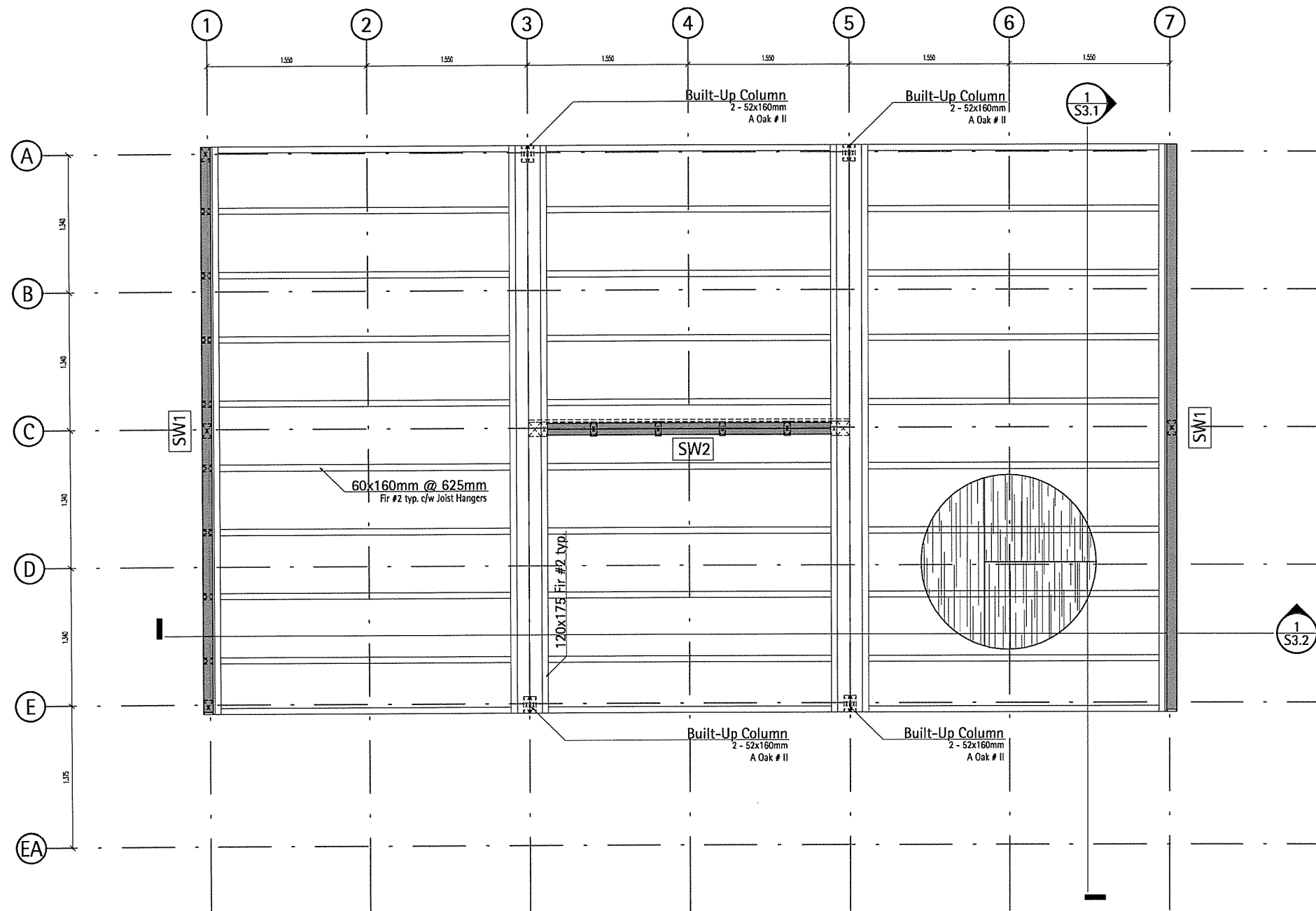
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**S2.3**

COMPONENT  
**Structure**

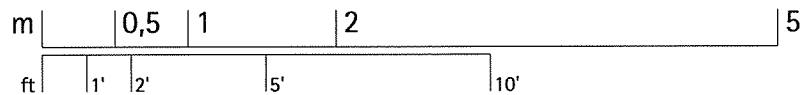
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**S2.3** Floor Plan  
Scale 1:50



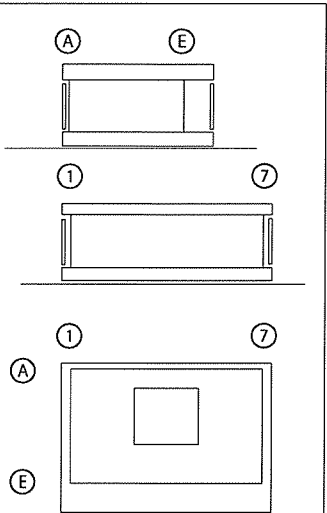




1  
S2.4  
Roof Panels  
Scale 1:50



Shearwall Schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @sheet edges and 100 o.c. @ intermediate studs. Blocking not required.

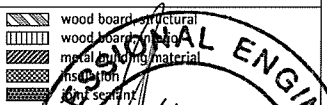




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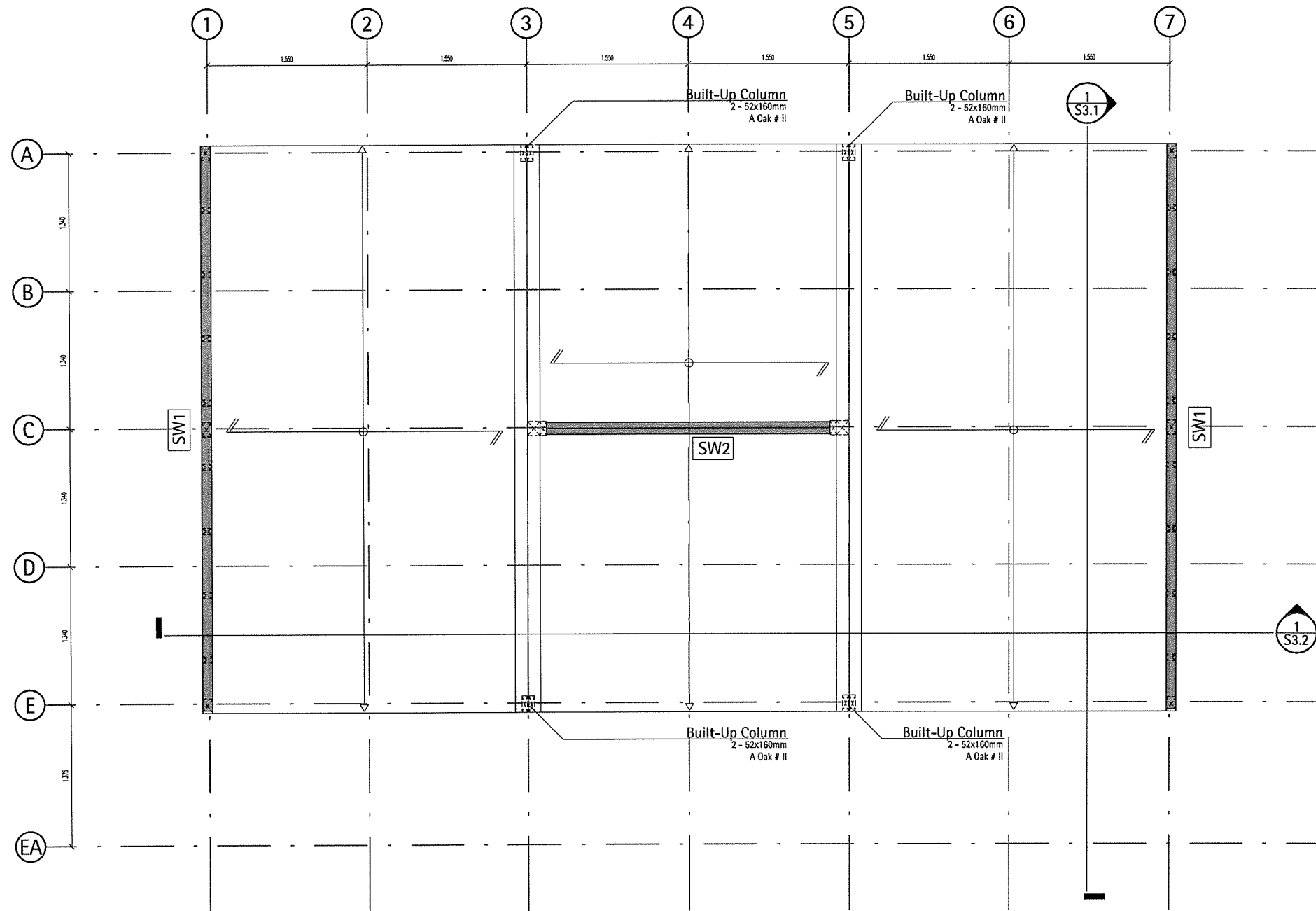
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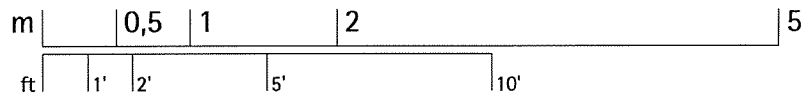
Seal and Permit  
PROFESSIONAL ENGINEER  
MEMBER 13657  
07.03.02  
YR. MON. DAY  
SASKATCHEWAN

INDEX	DESCRIPTION	SCALE
1	Roof Panels	1:50

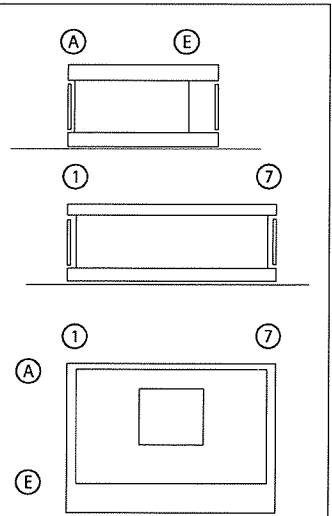
DRAWING NUMBER  
**S2.4**  
COMPONENT  
**Structure**




1 Roof Framing  
S2.5 Scale 1:50




Shearwall Schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @ sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @ sheet edges and 100 o.c. @ intermediate studs. Blocking not required.










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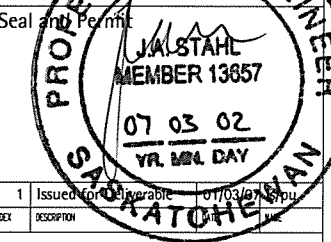


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64287 Darmstadt  
[www.solardecathlon.de](http://www.solardecathlon.de)  
[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

Seal and Permit



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J. A. STAHL  
MEMBER 13657  
07.03.02  
YR. REG. DAY

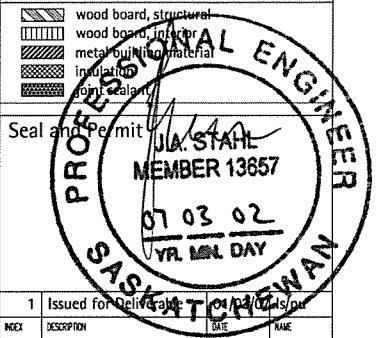
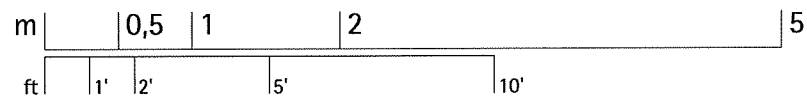
INDEX	DESCRIPTION	SCALE
1	Roof Framing	1:50

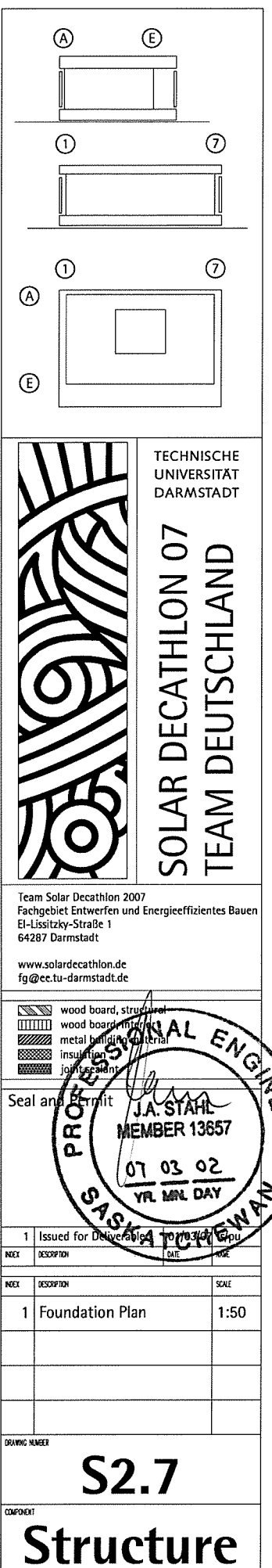
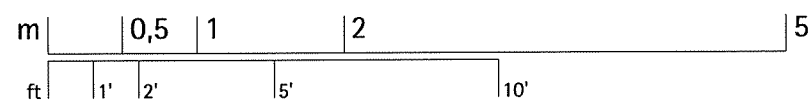
DRAWING NUMBER

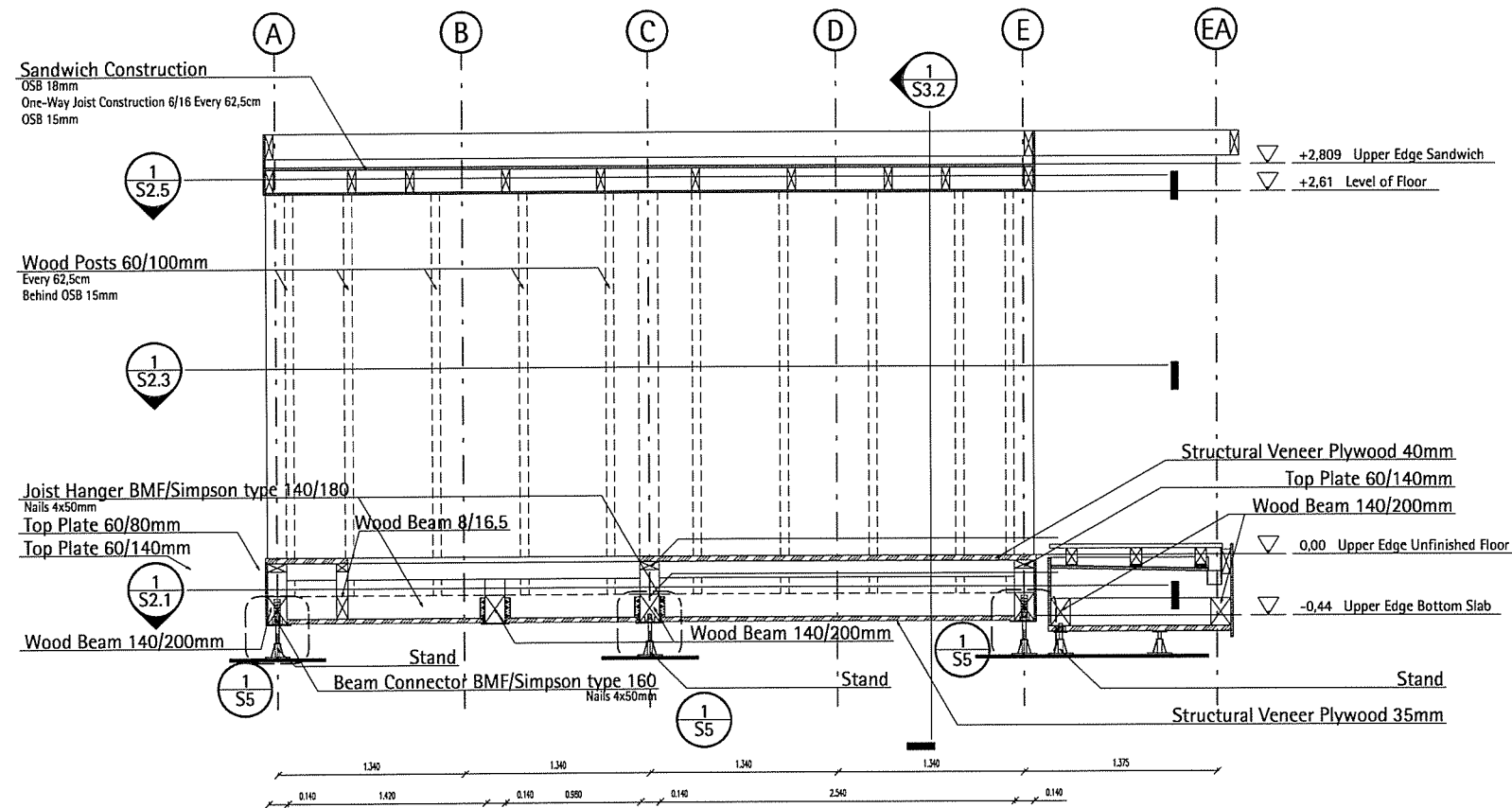
S2.5

COMPONENT

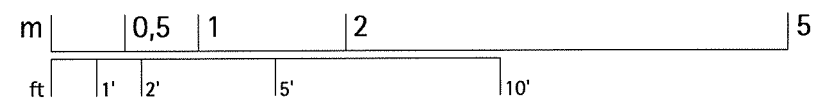
Structure








**1**  
**S3.1** **Structural Section**  
Scale 1:50





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[www.solardecathlon.de](http://www.solardecathlon.de)  
[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

wood board, structural  
wood board, interior  
metal building material  
insulation material  
joint sealant

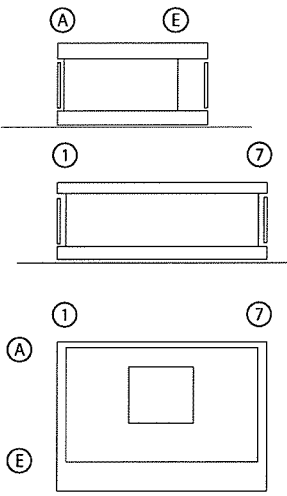
Seal and Permit  
J.A. STAHL  
MEMBER 13657  
07 03 02  
YR. MON. DAY

1 Issued for delivery 04/03/02

INDEX	DESCRIPTION	DATE	BY
1	Structural Section		

DRAWING NUMBER  
**S3.1**

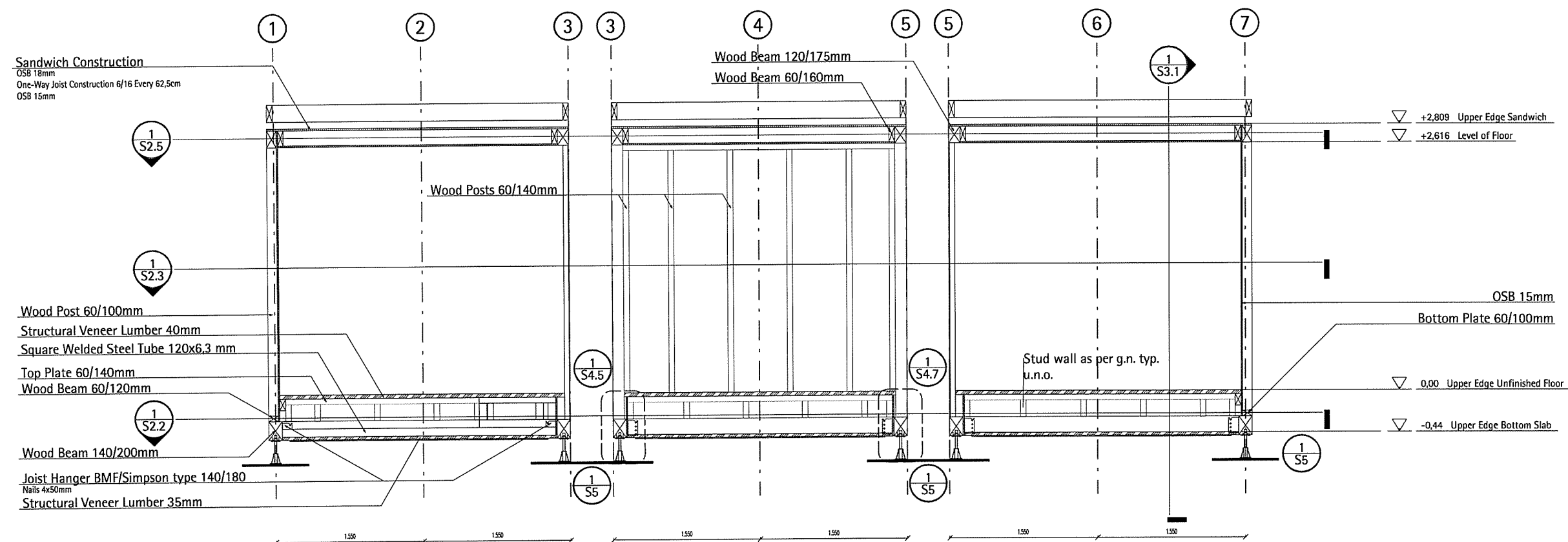
COMPONENT  
**Structure**




Sa  
OSI  
Onr  
OST

W  
St  
Sc  
Tc  
W

W  
Jc  
Na  
St



**1**  
**S3.2** **Structural Longitudinal Section**  
Scale 1:50



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www.solardecathlon.de  
fg@ee.tu-darmstadt.de

wood board, structural  
wood board, interior  
metal building material  
insulation  
joint sealant

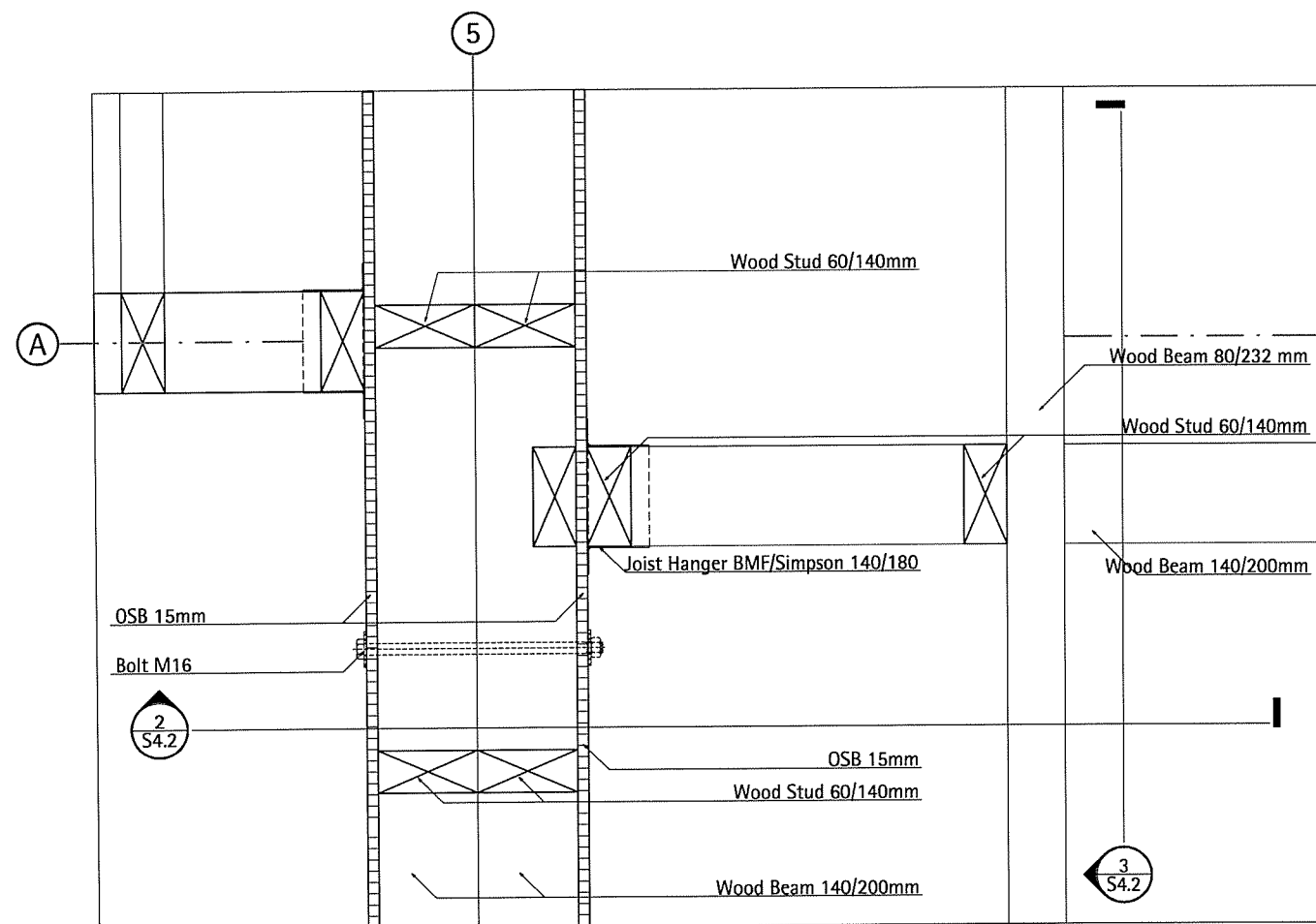
Seal and Fastener

**PROFESSIONAL ENGINEER**  
**J.A. STAHL**  
**MEMBER 13657**  
**07.03.02**  
**SKATCHEVAN**

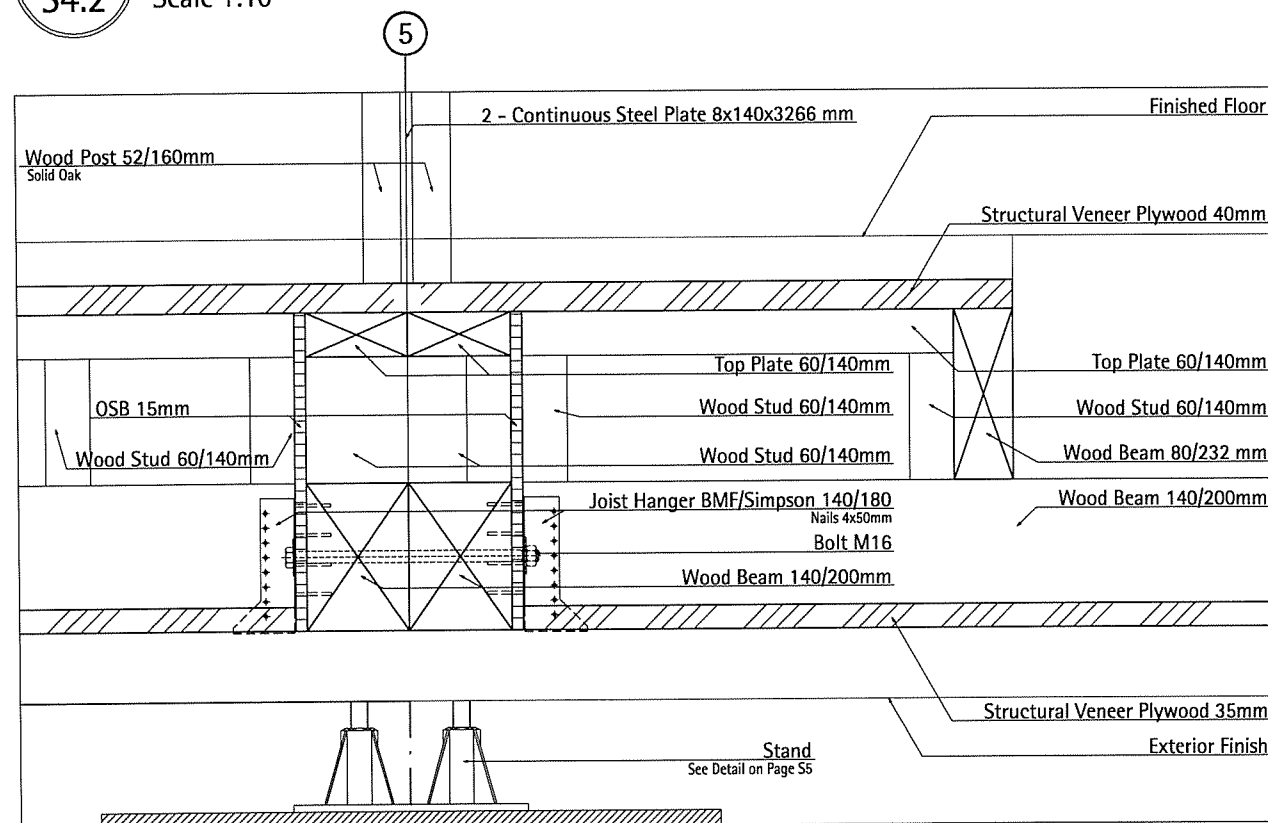
INDEX	DESCRIPTION	DATE	BY	CHK
1	Issued	07.03.02	MM/DAY	YEAR
1	Structural Long. Section			1:50

**S3.2**

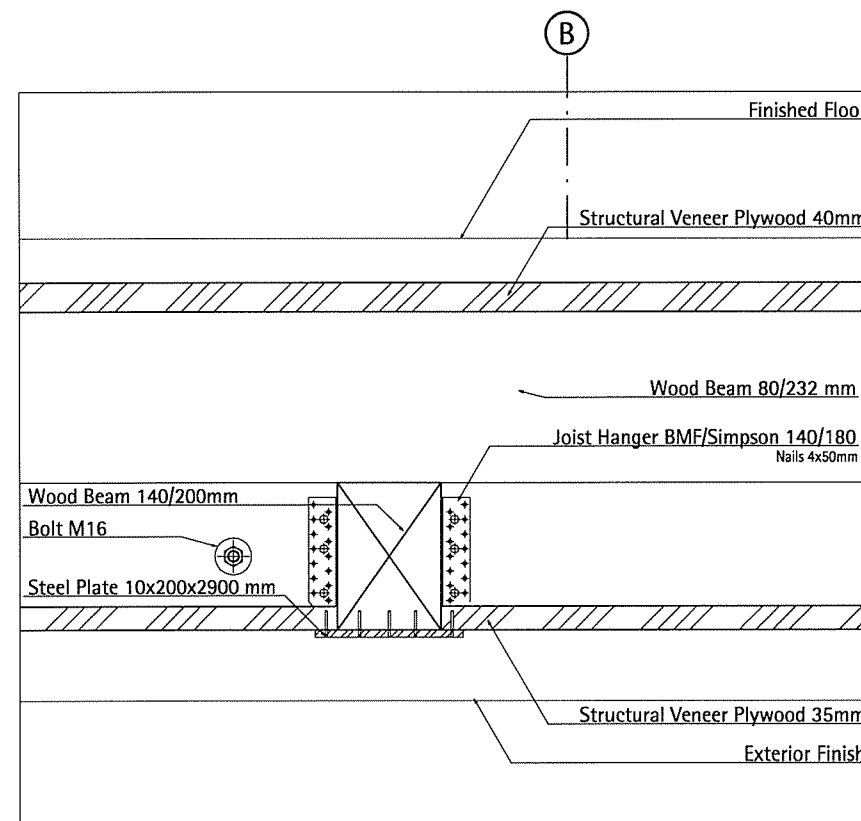
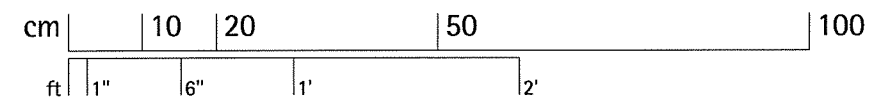
**Structure**



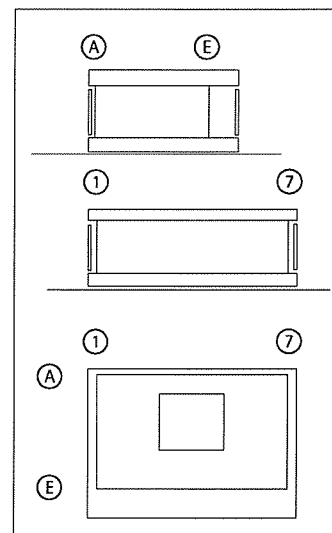
1 Platform Detail Bed  
Scale 1:10



2 Section Platform Detail Bed  
Scale 1:10



3 Section Platform Detail Bed  
Scale 1:10



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wood board, structural  
wood board, interior  
metal building material  
insulation  
joint sealant

Seal and Finish  
PROFESSIONAL ENGINEER  
J.A. STAHL  
MEMBER 13657  
07 03 02  
YR. MM. DAY  
1 Issued for Design  
INDEX DESCRIPTION SCALE

INDEX	DESCRIPTION	SCALE
1	Platform Detail Bed	1:10
2	Section Detail Bed	1:10
3	Section Detail Bed	1:10

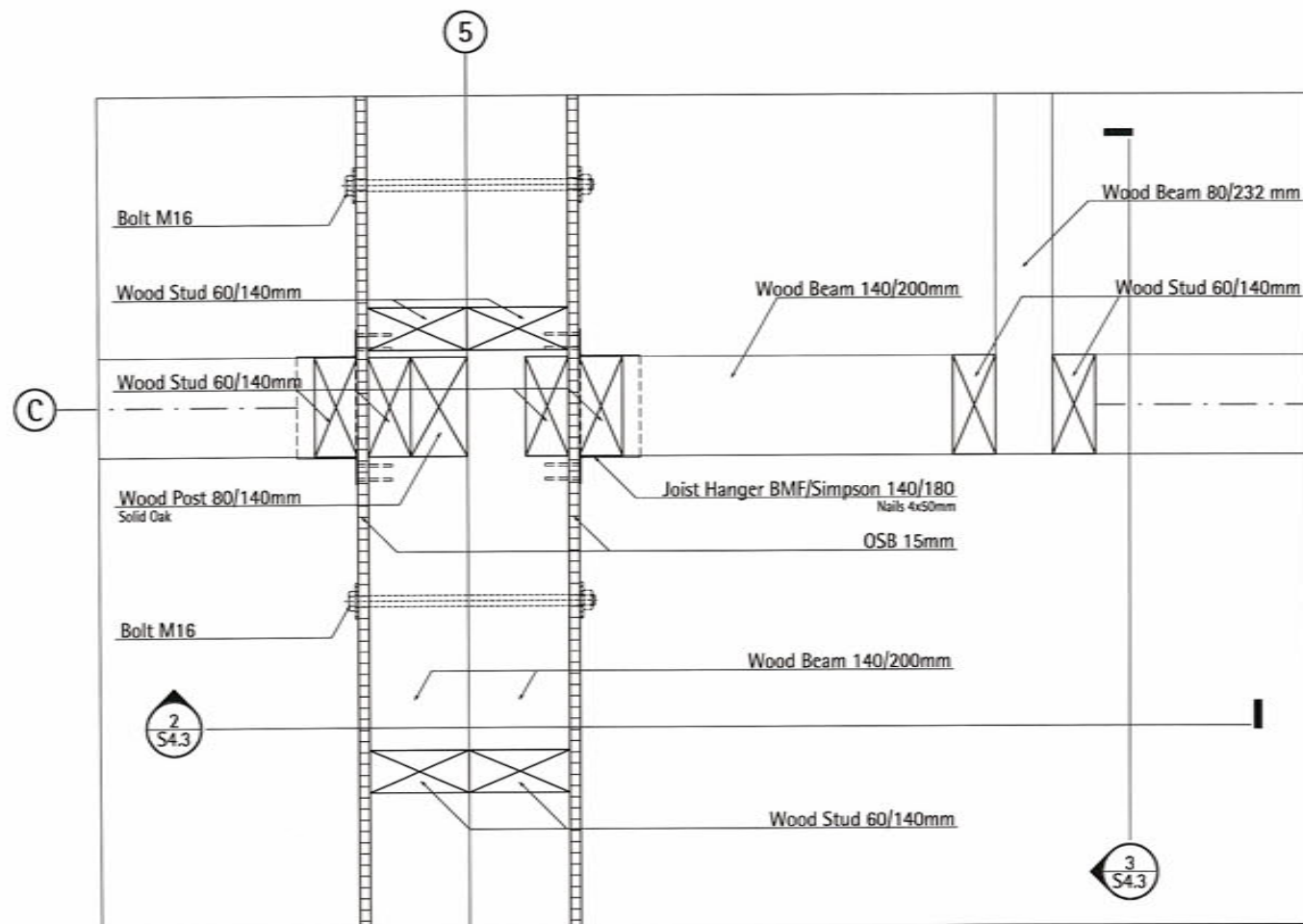
DRAWING NUMBER

S4.2

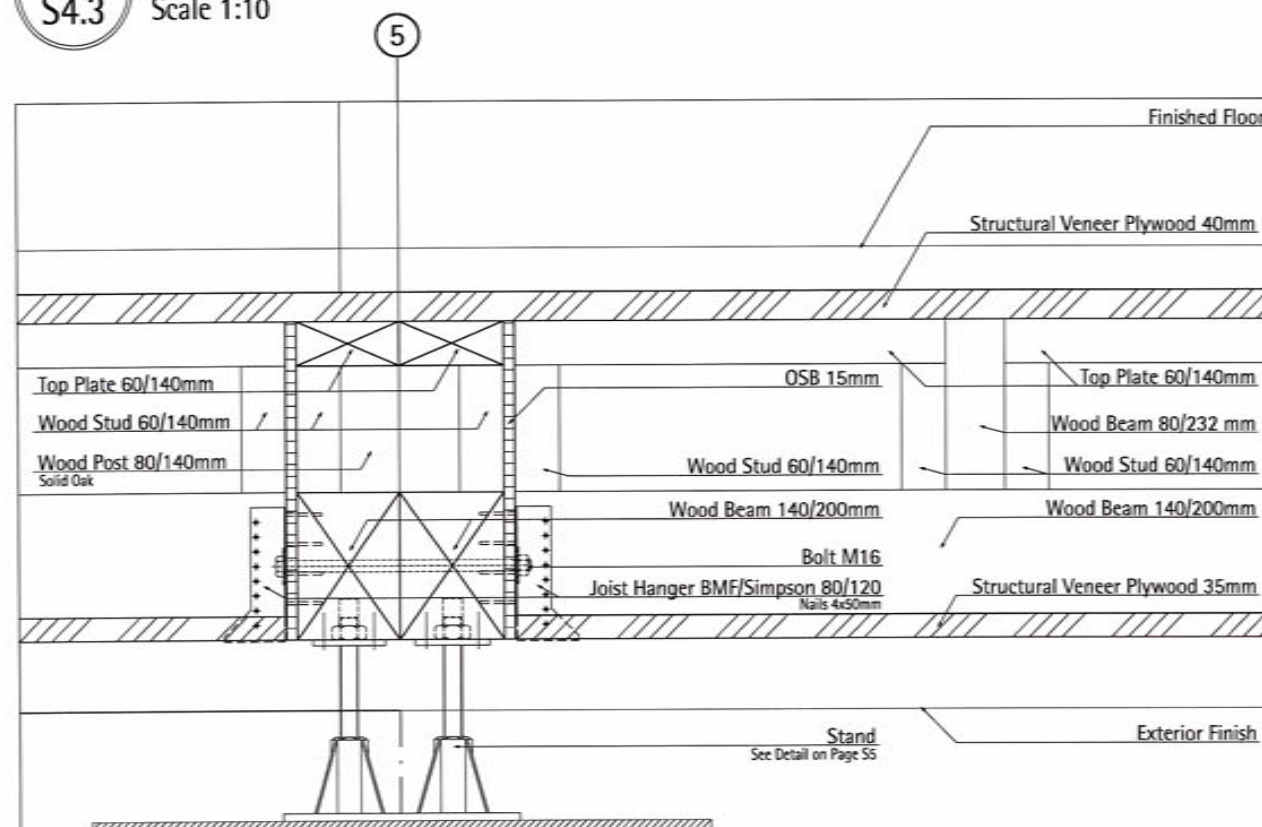
COMPONENT

Structure

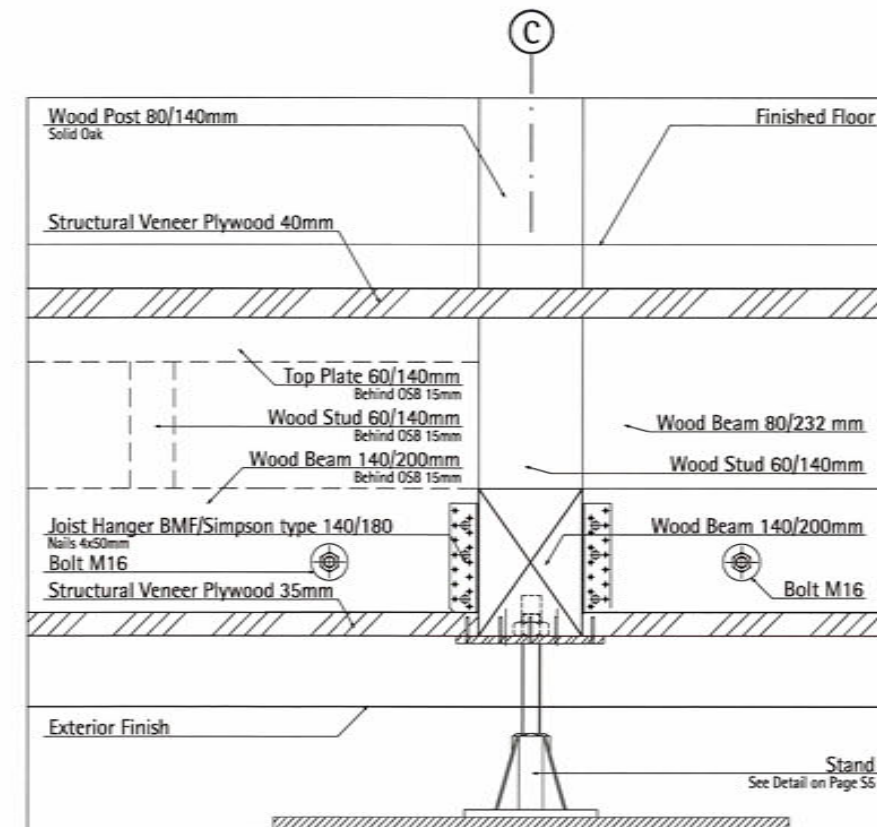
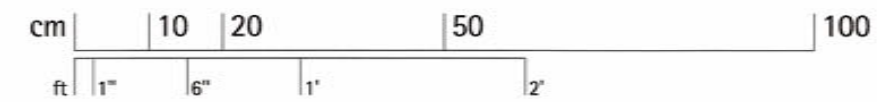




1 Platform Detail Bed  
S4.3 Scale 1:10



2 Section Platform Detail Bed  
S4.3 Scale 1:10



3 Section Platform Detail Bed  
S4.3 Scale 1:10



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wood board, structural  
wood board, 18mm  
metal fastener, material  
insulation material  
flooring

Seal and Permit  
J.A. STAHL  
MEMBER 13657  
07 03 02  
YR. MNL. DAY  
SASKA CHEWAN

NO.	DESCRIPTION	DATE	NAME
1	Platform Detail Bed	1:10	
2	Section Detail Bed	1:10	
3	Section Detail Bed	1:10	

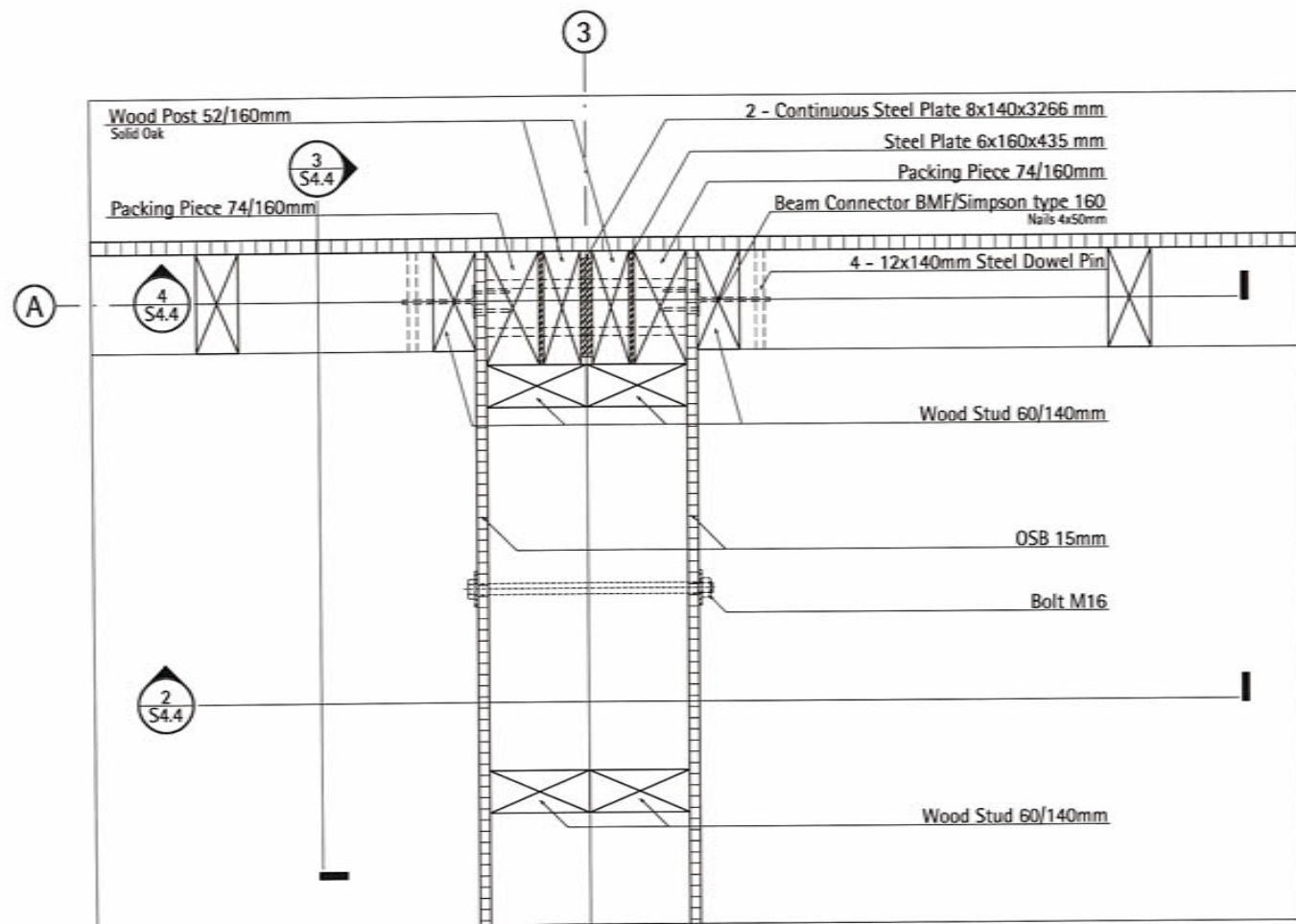
DRIVING NAME

**S4.3**

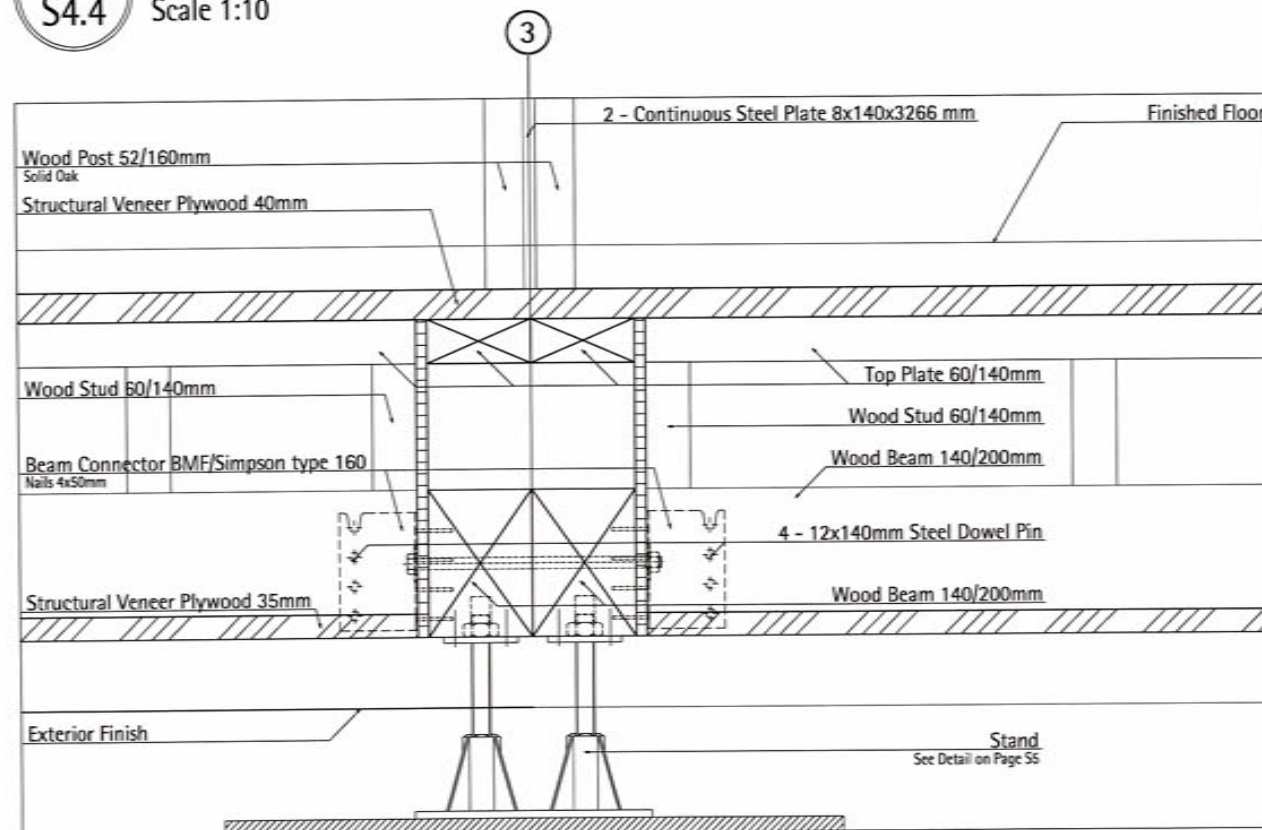
COMPONENT

**Structure**

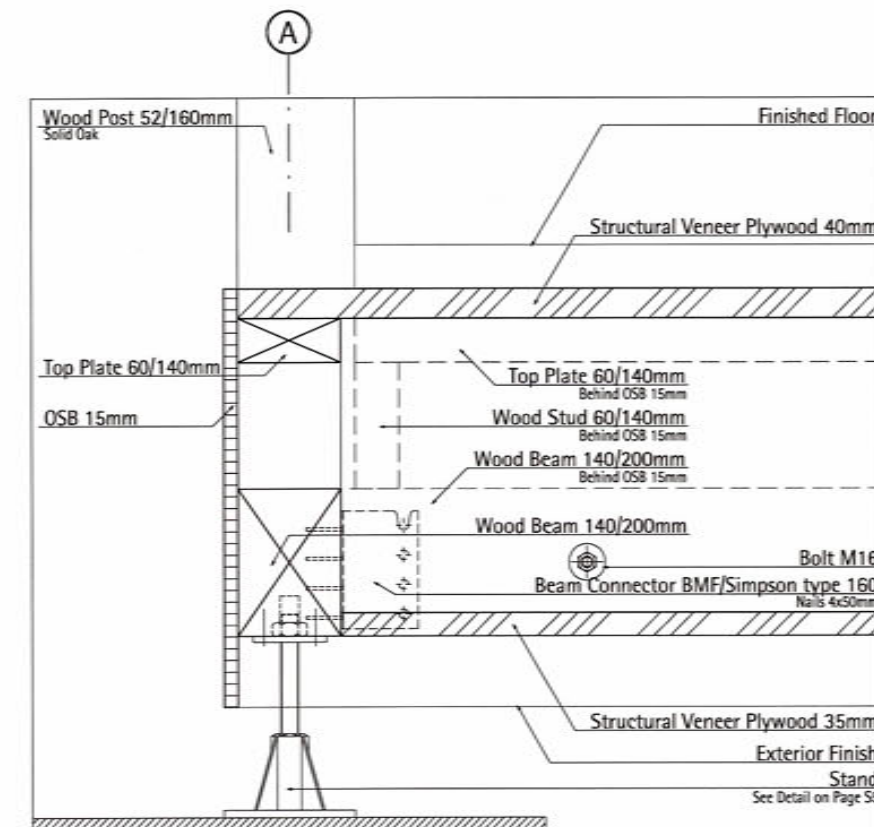
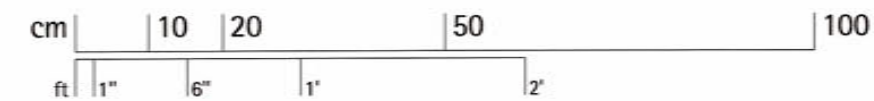




1 Platform Module Joint Axis 3 North  
S4.4 Scale 1:10



2 Section Platform Module Joint Axis 3 North  
S4.4 Scale 1:10



3 Section Platform Module Joint Axis 3  
S4.4 Scale 1:10



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64287 Darmstadt  
www.solardecathlon.de  
fig@ee.tu-darmstadt.de

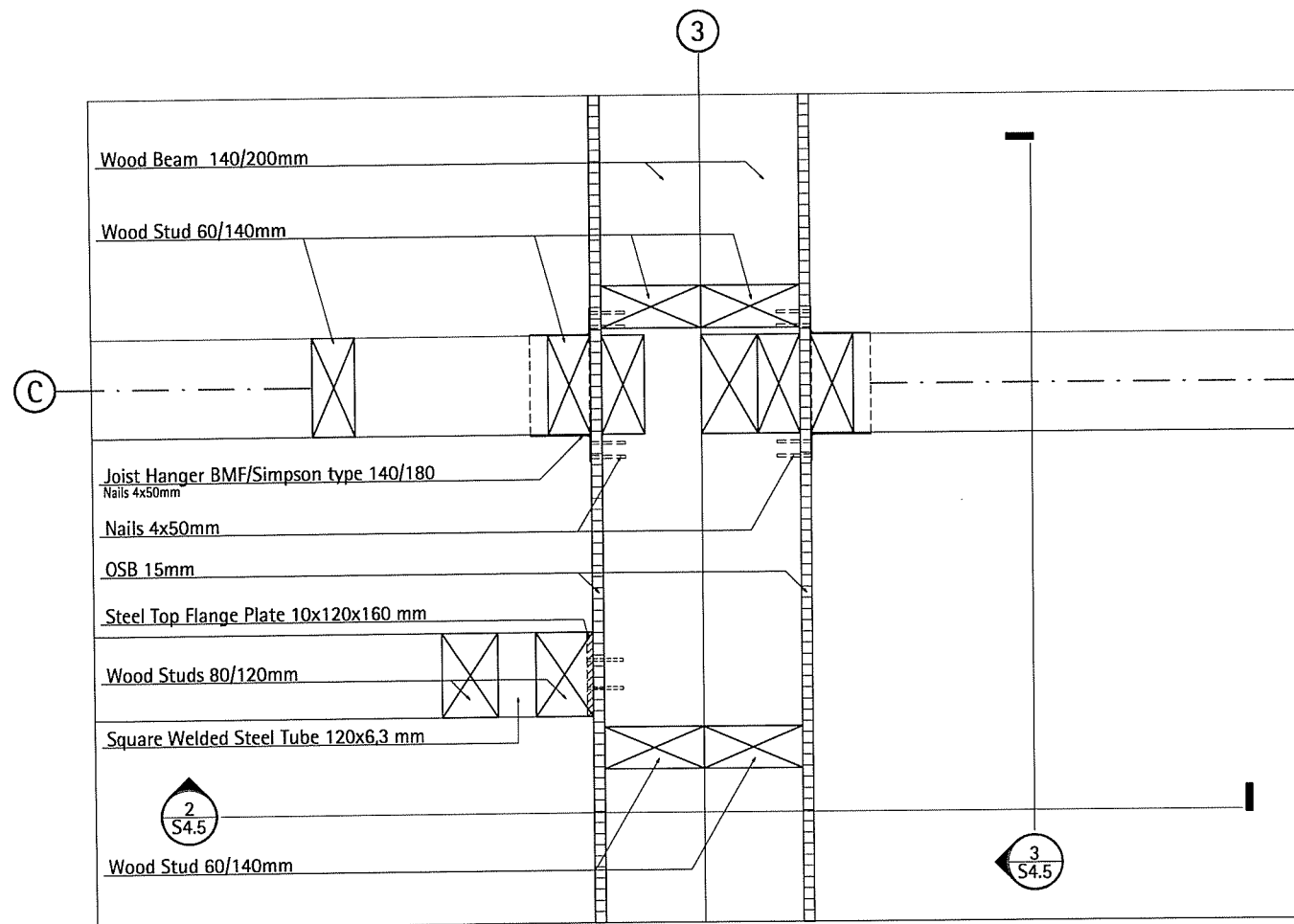
wood board, structural  
wood board, interior  
metal building material  
insulation  
joint

Seal and Permit  
J.A. STAHL  
MEMBER 13657  
07.03.02  
YR. MM. DAY

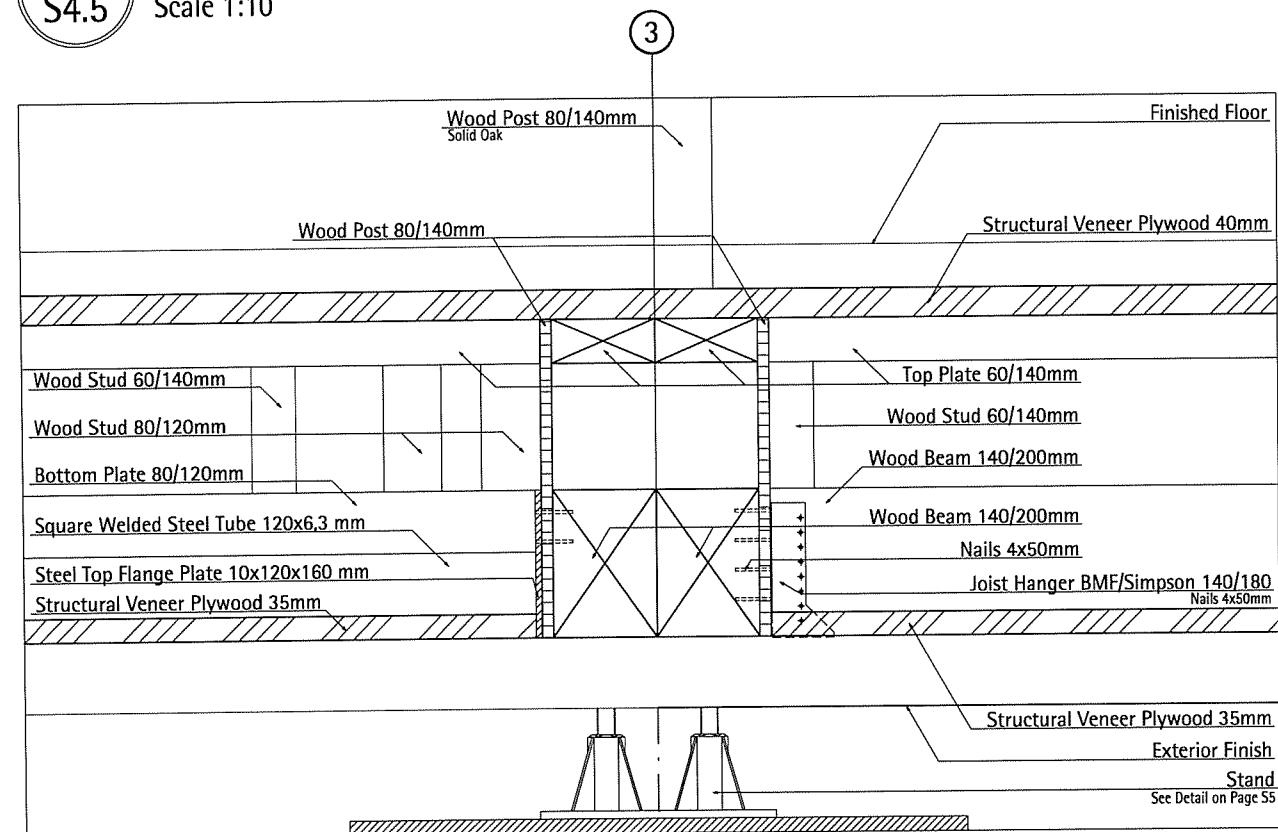
NO.	DESCRIPTION	SCALE
1	Module Joint Axis 3	1:10
2	Section Module Joint	1:10
3	Section Module Joint	1:10

DRAWING NUMBER  
**S4.4**

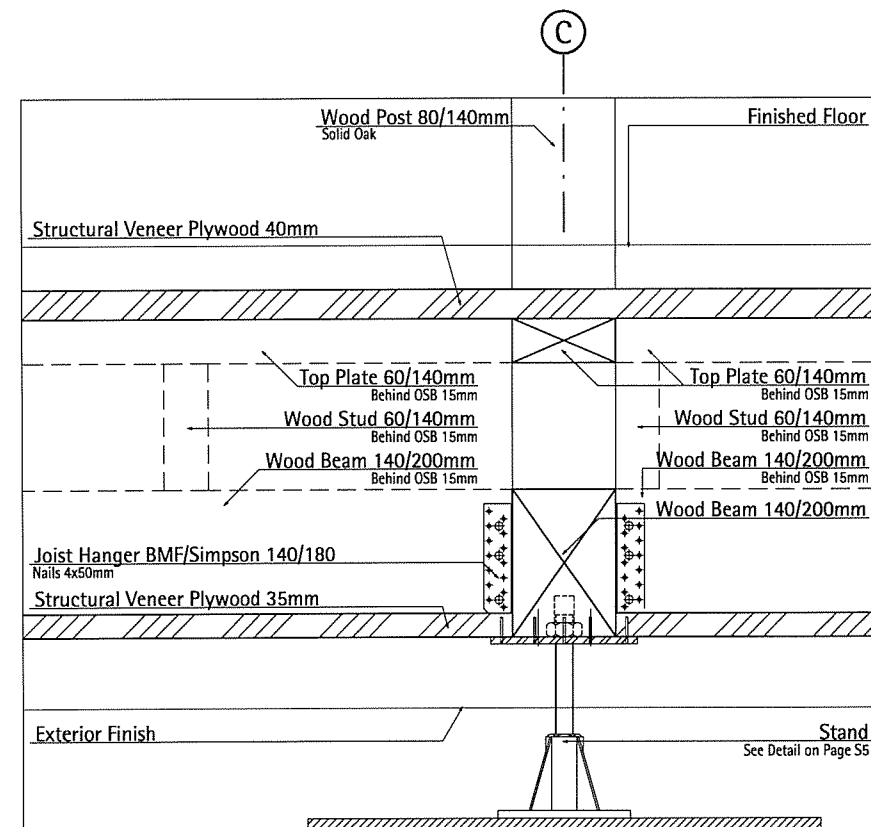
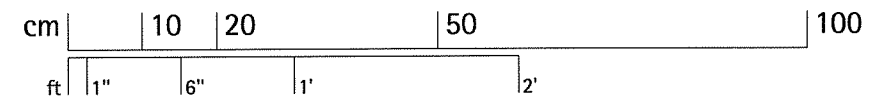
COMPONENT  
**Structure**



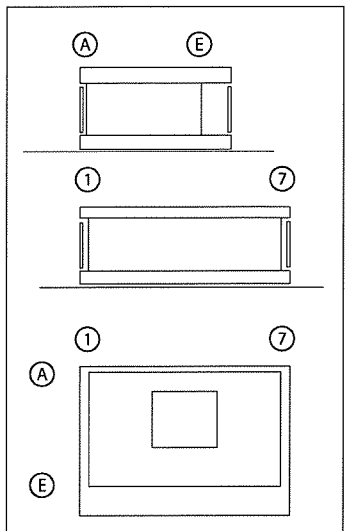
1 Platform Module Joint Axis 3 Center  
S4.5 Scale 1:10



2 Section Platform Module Joint Axis 3 Center  
S4.5 Scale 1:10



3 Section Platform Module Joint Axis 3  
S4.5 Scale 1:10



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[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

wood board, structural  
wood board, interior  
metal building material  
insulation  
joint sealant

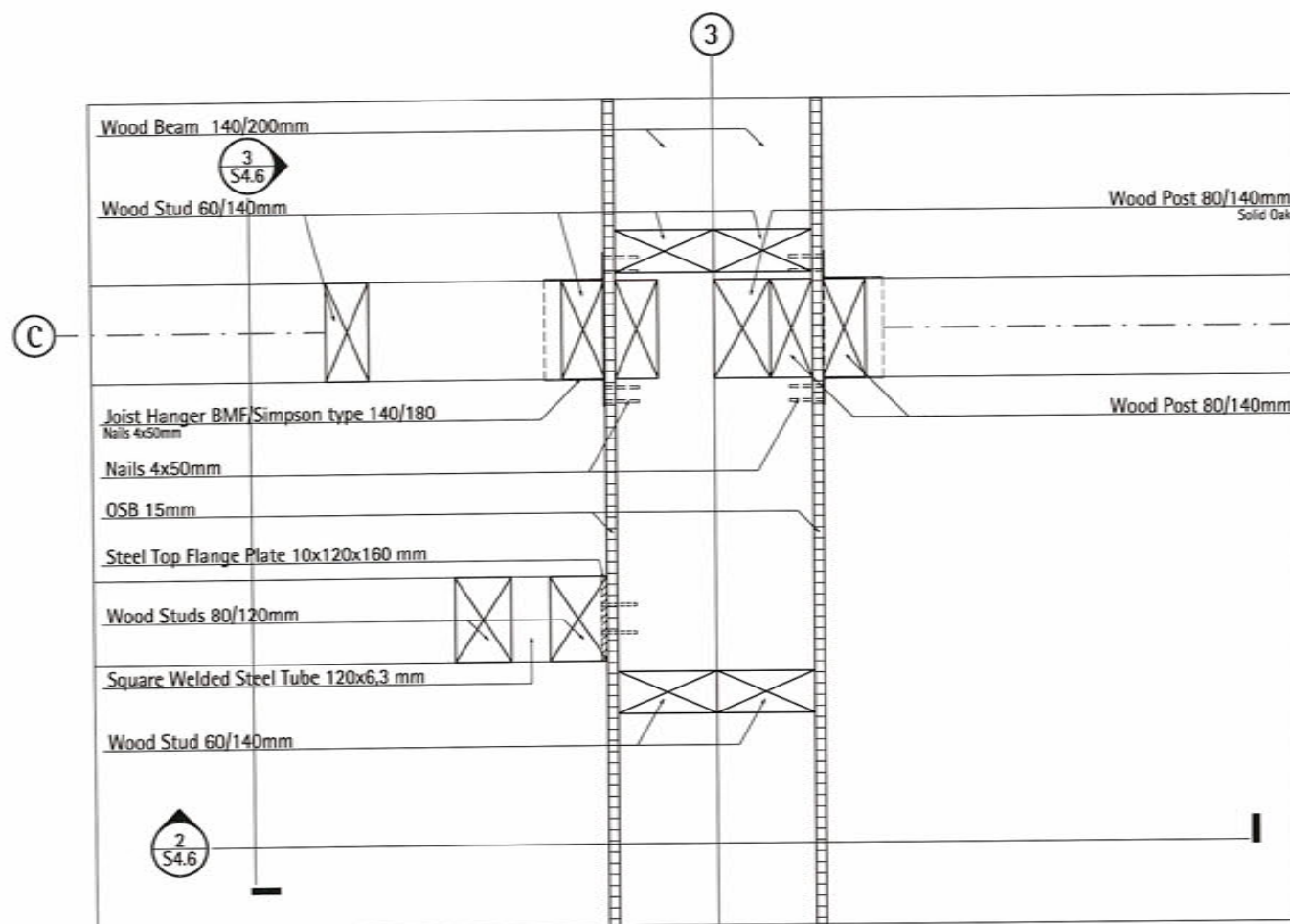
Seal and Permit

PROFESSIONAL ENGINEER  
J.A. STAHL  
MEMBER 13657  
07 03 02

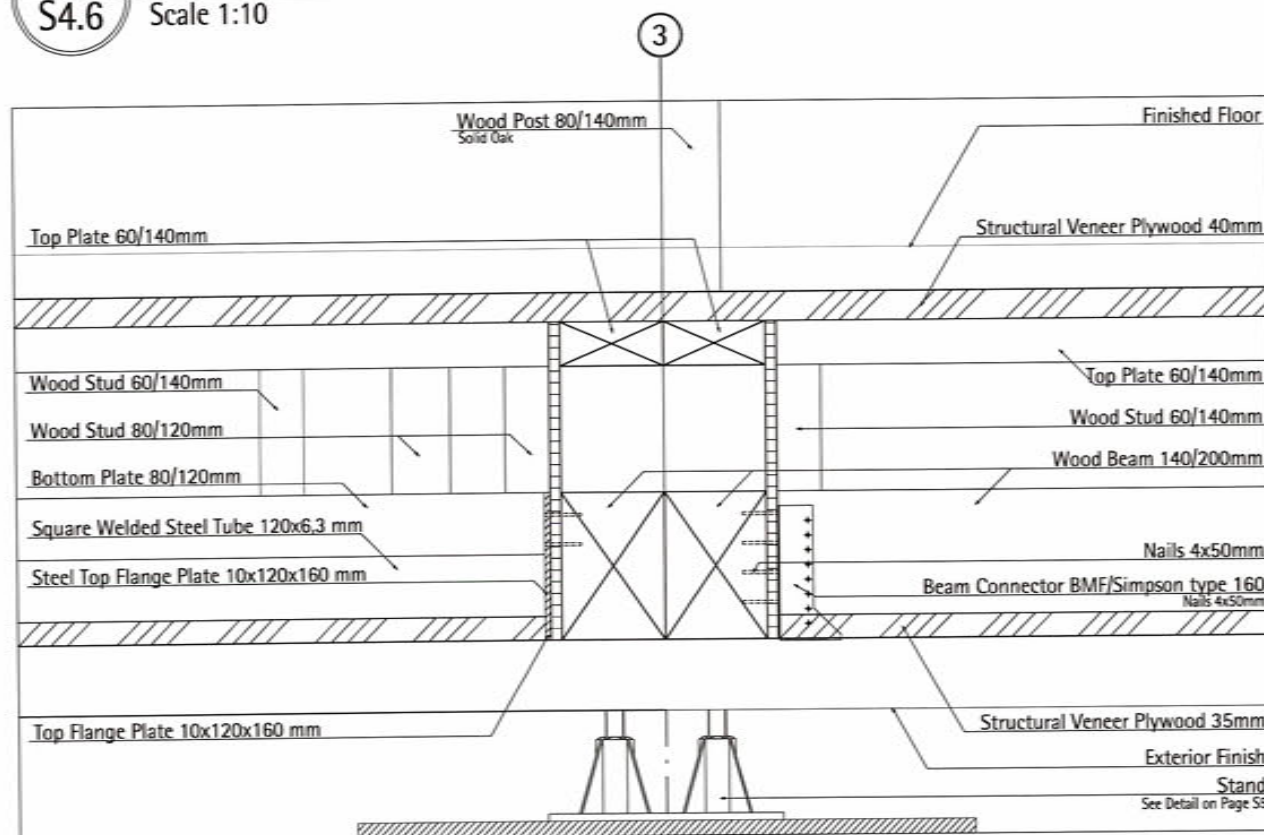
NO.	DESCRIPTION	DATE	SCALE
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2	Section Module Joint		1:10
3	Section Module Joint		1:10

DRAWING NUMBER  
**S4.5**  
COMPONENT  
**Structure**

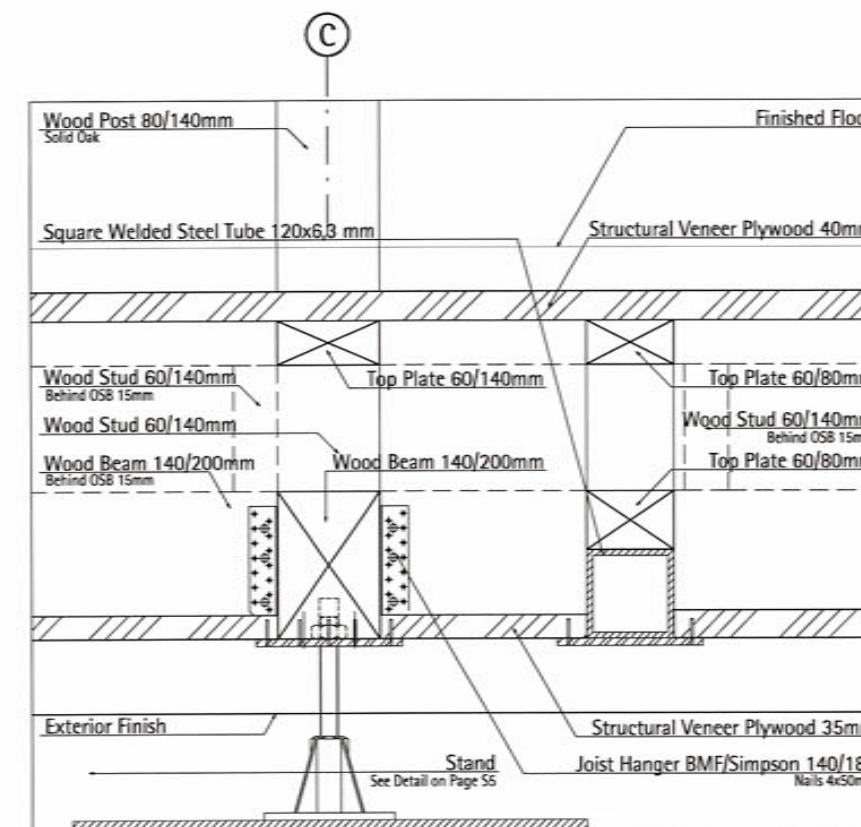
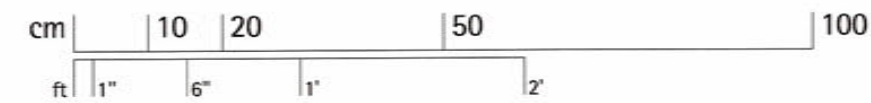




1 Platform Module Joint Axis 3 Center  
S4.6 Scale 1:10



2 Section Platform Module Joint Axis 3 Center  
S4.6 Scale 1:10



3 Section Platform Module Joint Axis 3  
S4.6 Scale 1:10



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wood board, structural  
wood board, interior  
metal building material  
insulation  
concrete

Seal and Permit  
J.A. STAHL  
MEMBER 13857  
07 03 02  
YR. MM. DAY  
1 Issued for Decathlon 01/03/02  
100% SKATCHEV

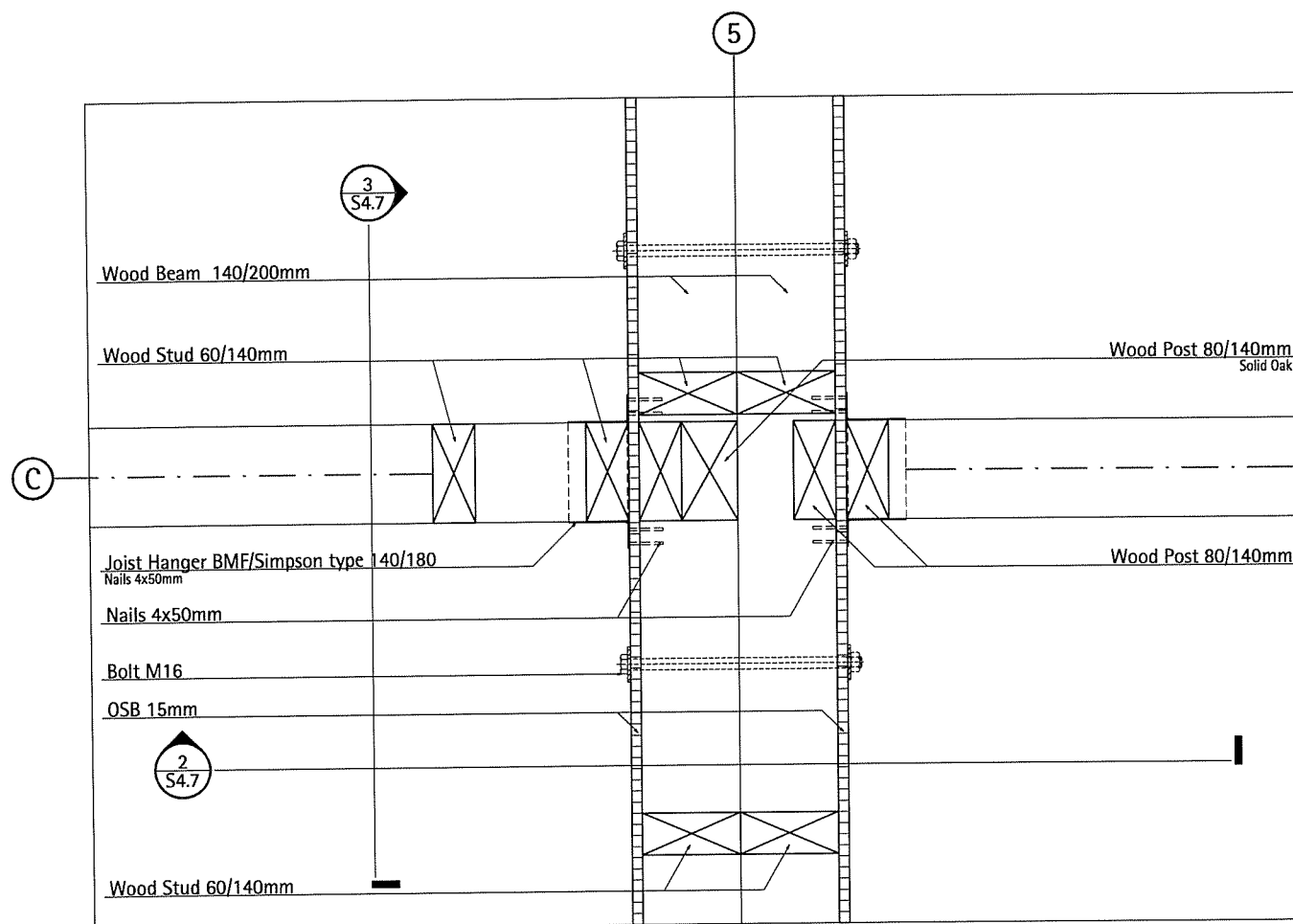
NO.	DESCRIPTION	SCALE
1	Platform Module Joint	1:10
2	Section Module Joint	1:10
3	Section Module Joint	1:10

DRAWING NUMBER

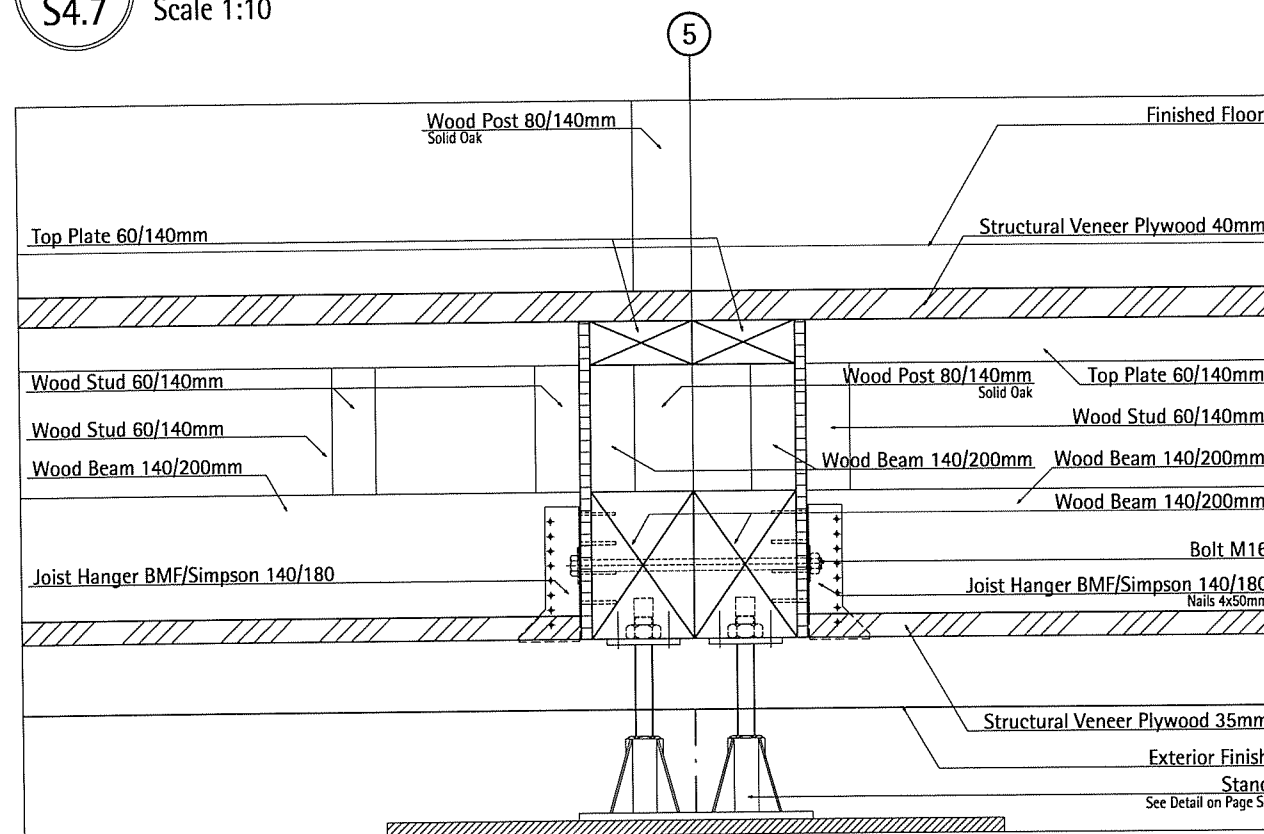
**S4.6**

CATEGORY

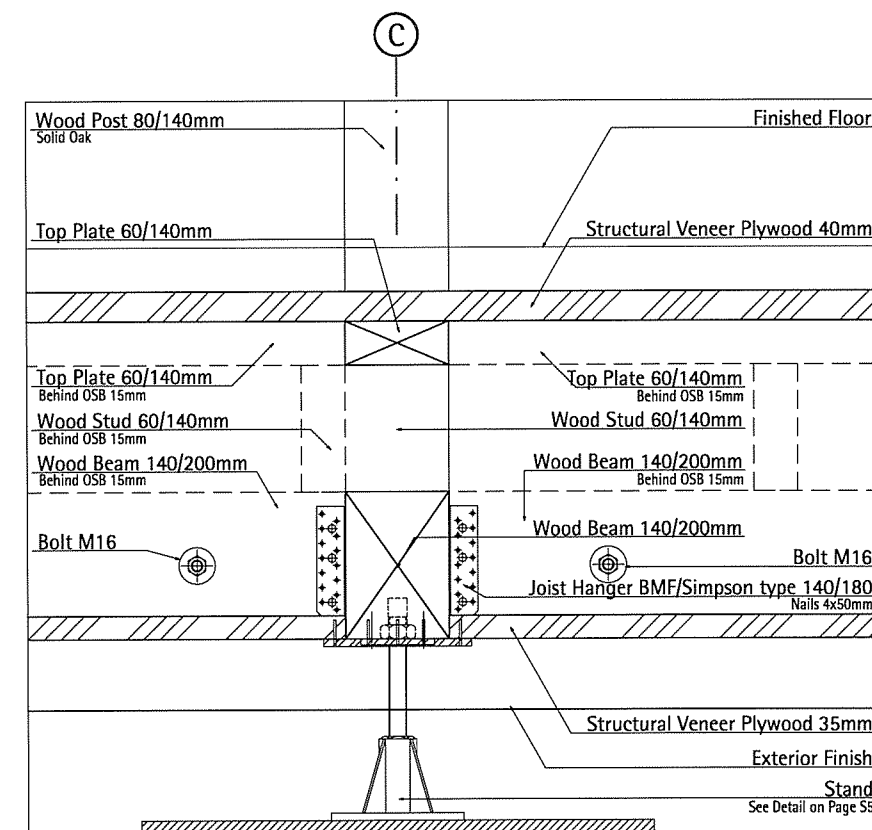
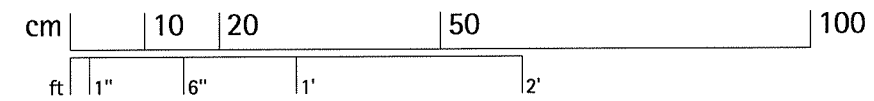
**Structure**




1 Platform Module Joint Axis 5 Center  
S4.7 Scale 1:10



2 Section Platform Module Joint Axis 5 Center  
S4.7 Scale 1:10



3 Section Platform Module Joint Axis 5  
S4.7 Scale 1:10



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fg@ec.tu-darmstadt.de

wood beam structural  
wood stud structural  
wood post structural  
joist hanger  
bolt  
nail  
osb  
plywood  
veneer  
sealant

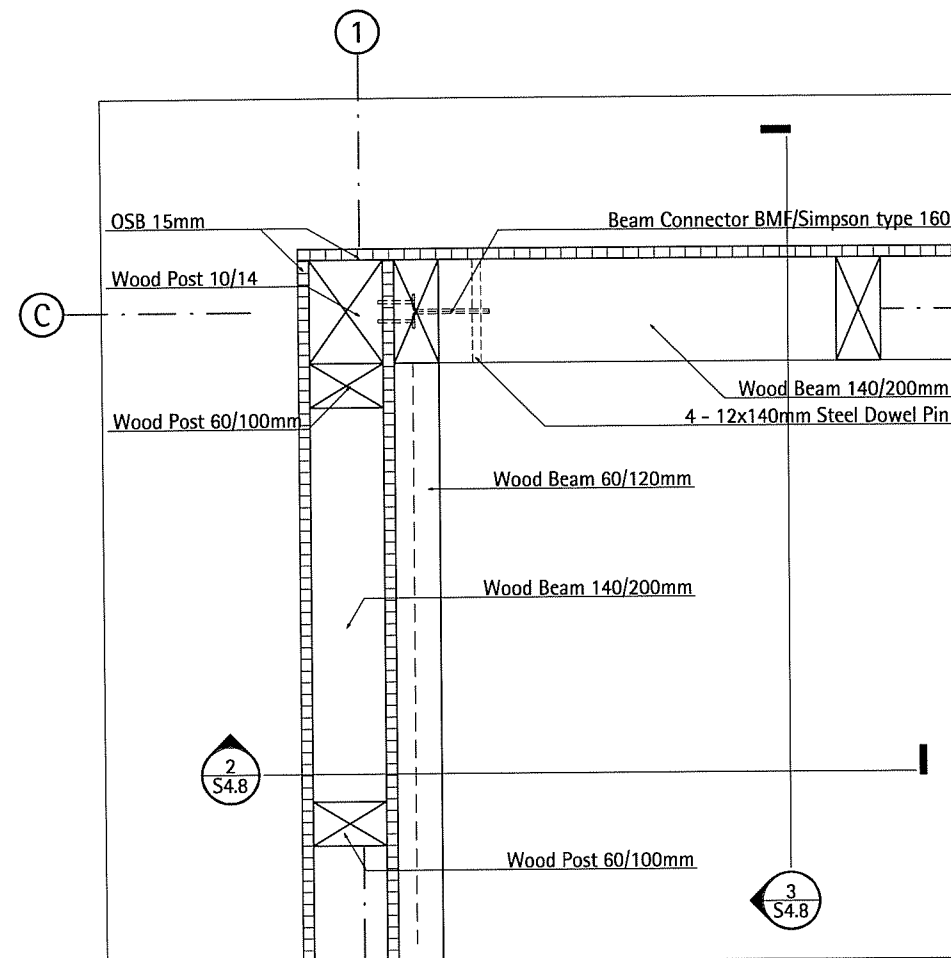
Seal and Penja A. STAHL  
MEMBER 13657  
07 03 02  
YR. MNL. DAY

INDEX	DESCRIPTION	DATE	NAME
1	Issued for delivery	07/03/07	Is/ps

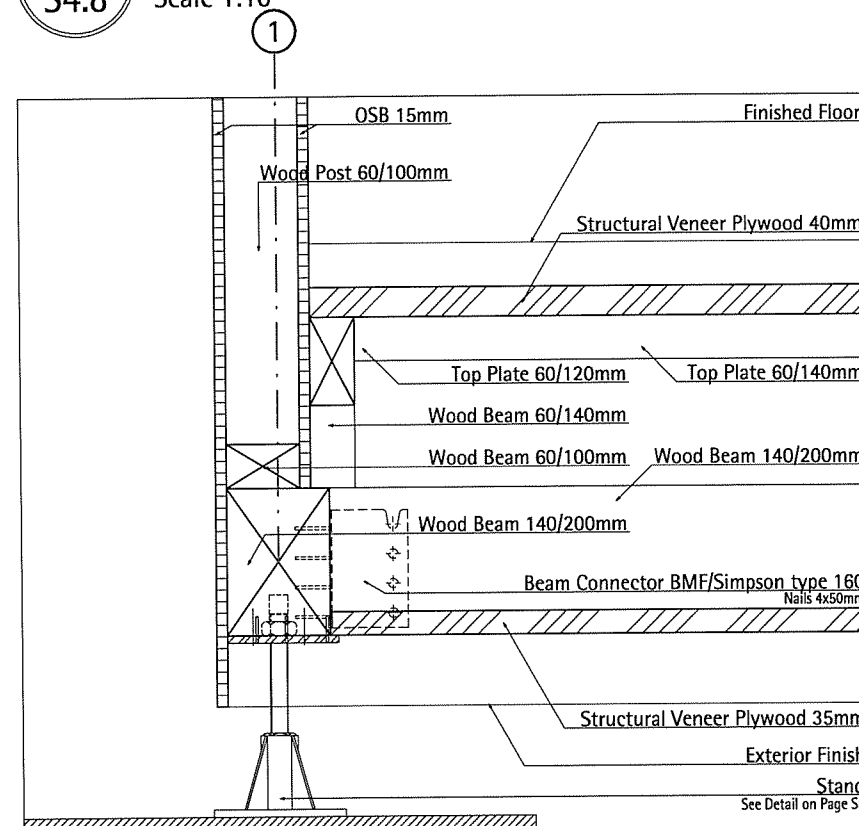
INDEX	DESCRIPTION	SCALE
1	Platform Module Joint	1:10
2	Section Module Joint	1:10
3	Section Module Joint	1:10

DRAWING NUMBER  
**S4.7**

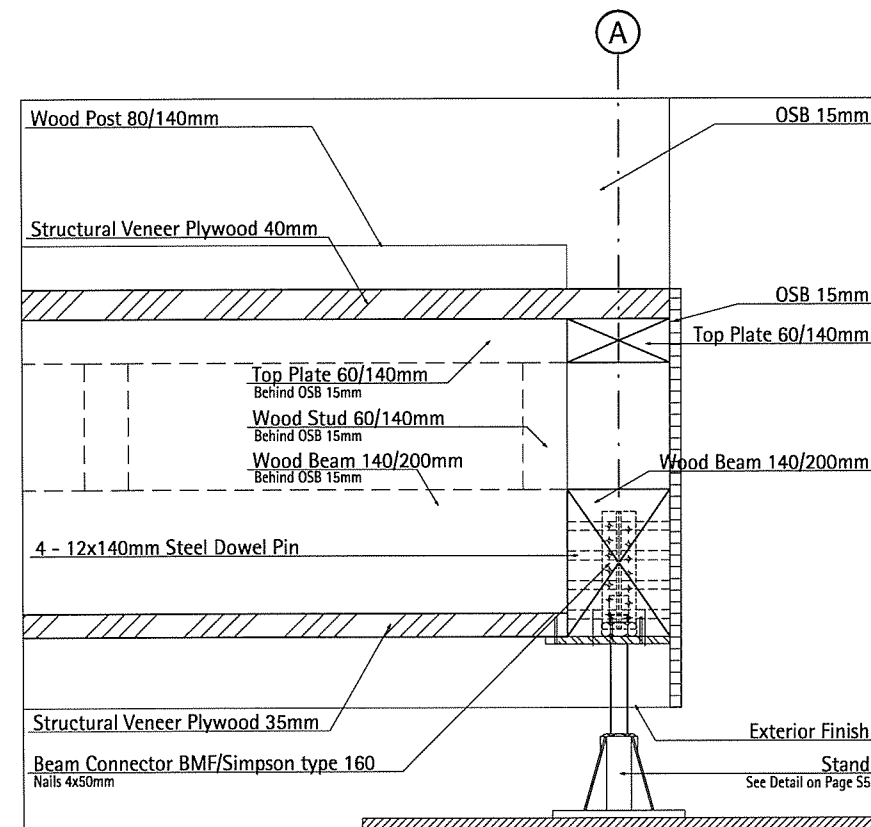
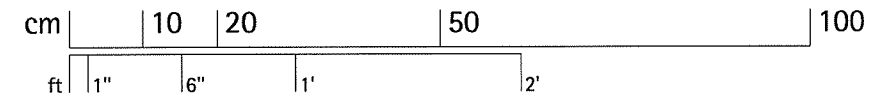
COMPONENT  
**Structure**



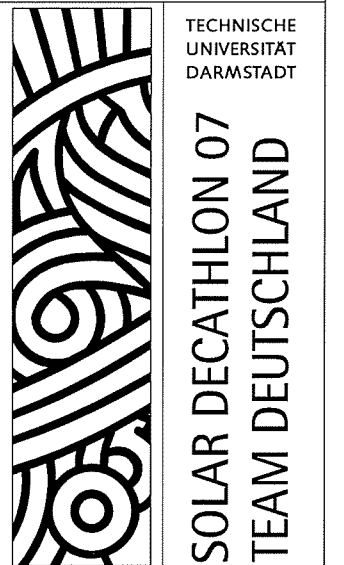
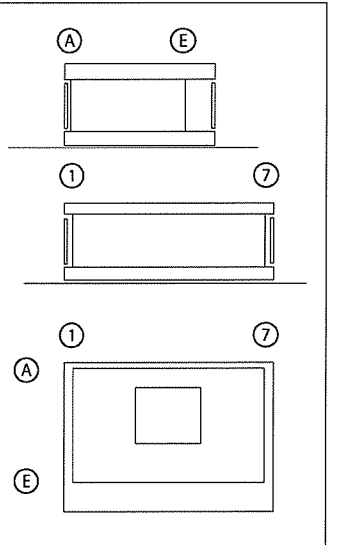
**1**  
S4.8  
Platform Upper Left Corner North  
Scale 1:10



**2**  
S4.8  
Section Platform Upper Left Corner North  
Scale 1:10

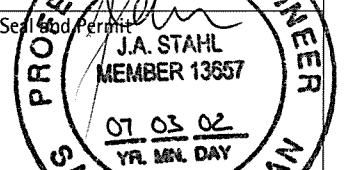
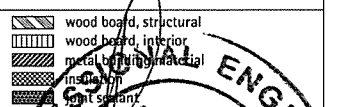


**3**  
S4.8  
Section Platform Upper Left Corner North  
Scale 1:10



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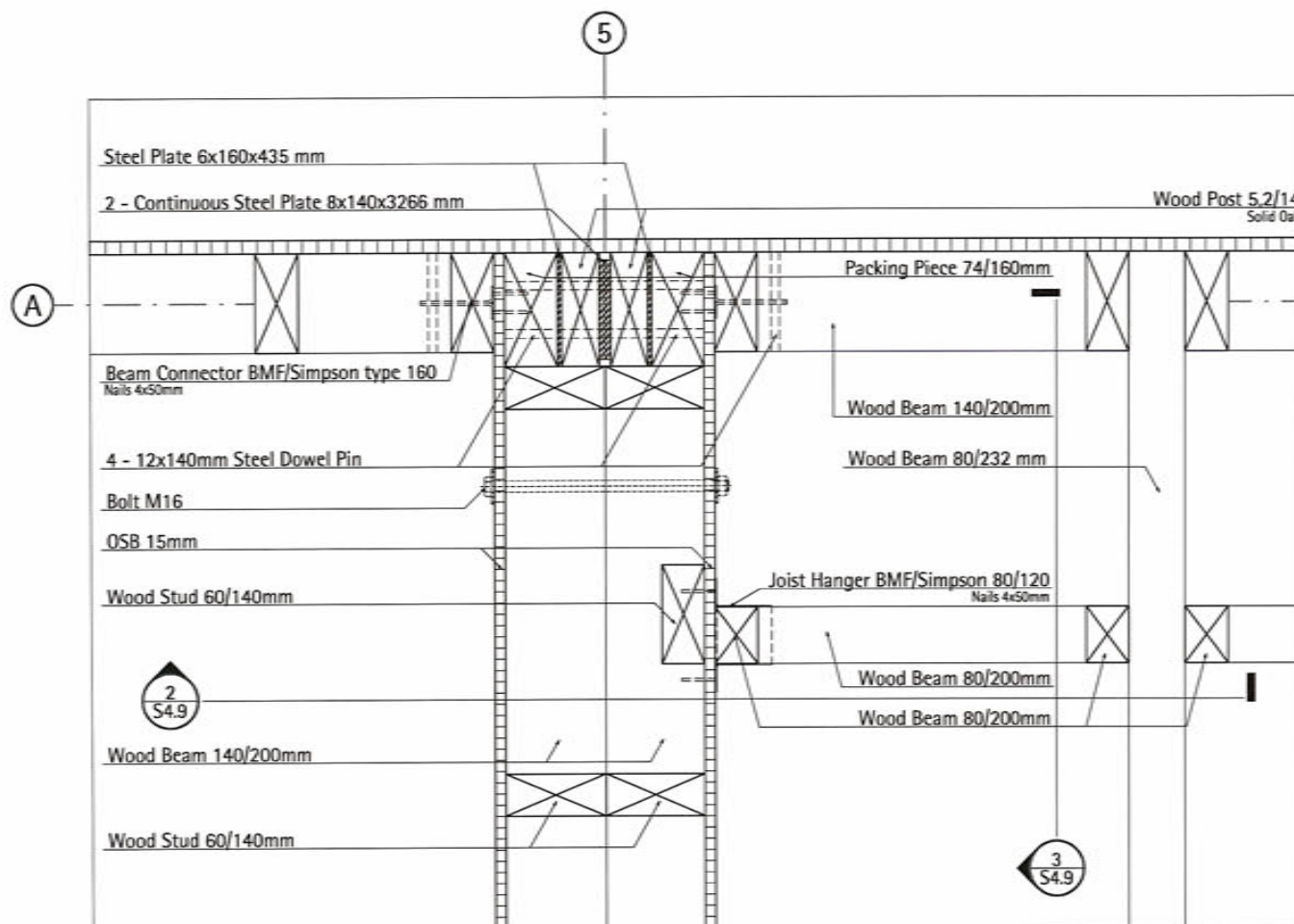
www.solardecathlon.de  
fg@cc.tu-darmstadt.de



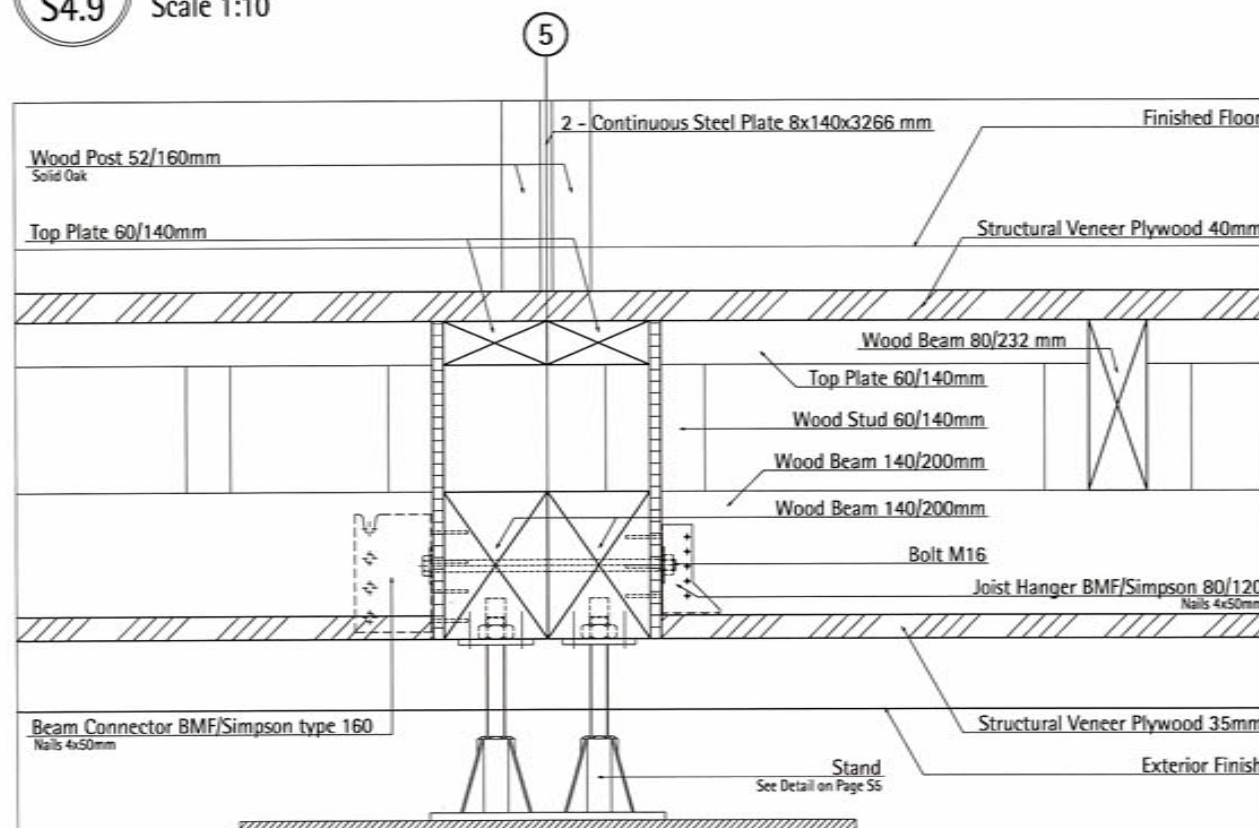
INDEX	DESCRIPTION	SCALE
1	Platform Upper L. Corner	1:10
2	Section Upper L. Corner	1:10
3	Section Upper L. Corner	1:10

DRAWING NUMBER  
**S4.8**  
COMPONENT  
**Structure**

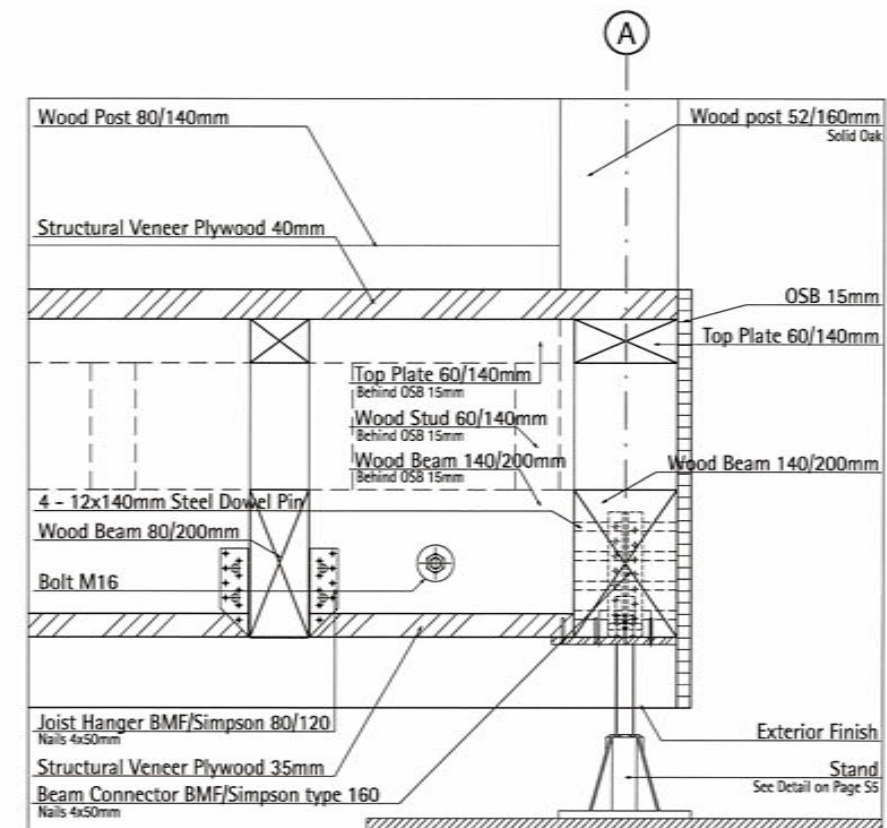
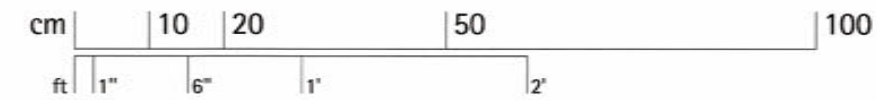




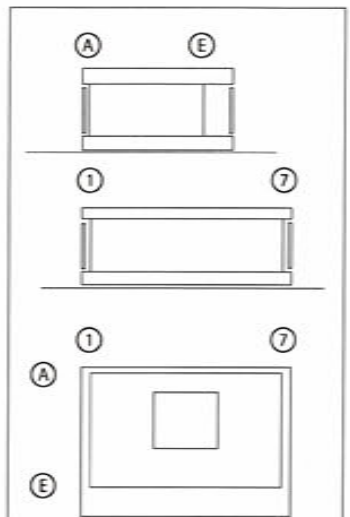
**1**  
S4.9 Platform Module Joint Axis 5 North  
Scale 1:10



**2**  
S4.9 Section Platform Module Joint Axis 5 North  
Scale 1:10



**3**  
S4.9 Section Platform Module Joint Axis 5  
Scale 1:10



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64287 Darmstadt  
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wood board, structural  
wood board, interior  
metal building material  
insulation  
joint sealant

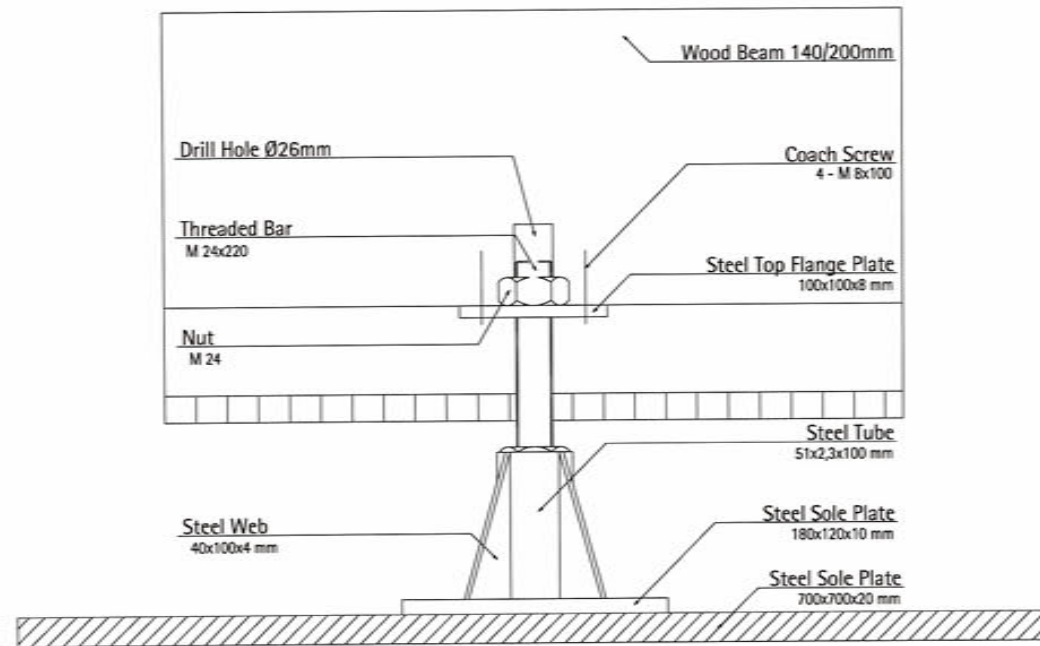
Seal and Paint

**PROFESSIONAL ENGINEER**  
J.A. STAHL  
MEMBER 13657  
07 05 02  
Issued for reference: 10/03/02  
Date: 10/03/02  
1 Description: 10/03/02  
2 Description: 10/03/02  
3 Description: 10/03/02

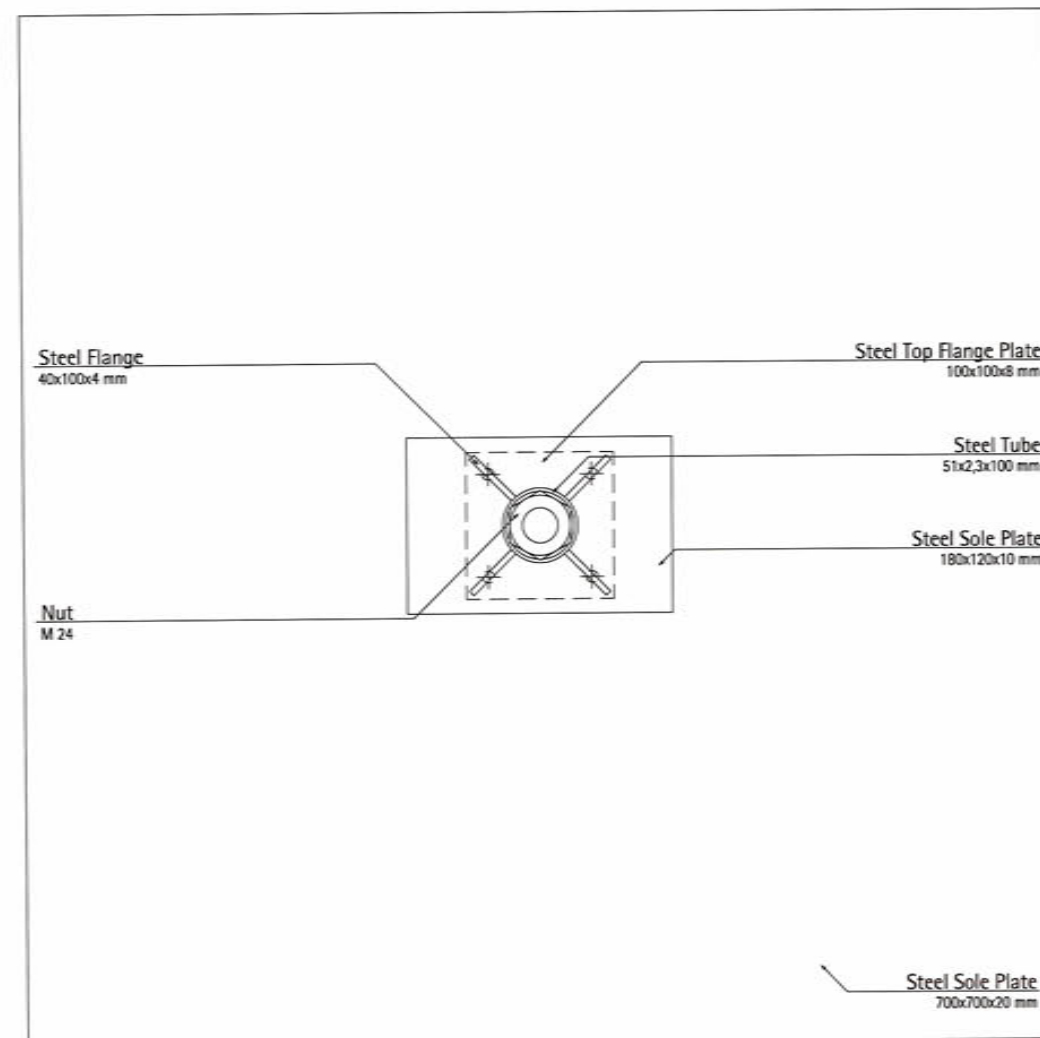
1 Platform Module Joint 1:10  
2 Section Module Joint 1:10  
3 Section Module Joint 1:10

DRIVING FORCE

**S4.9**  
**Structure**

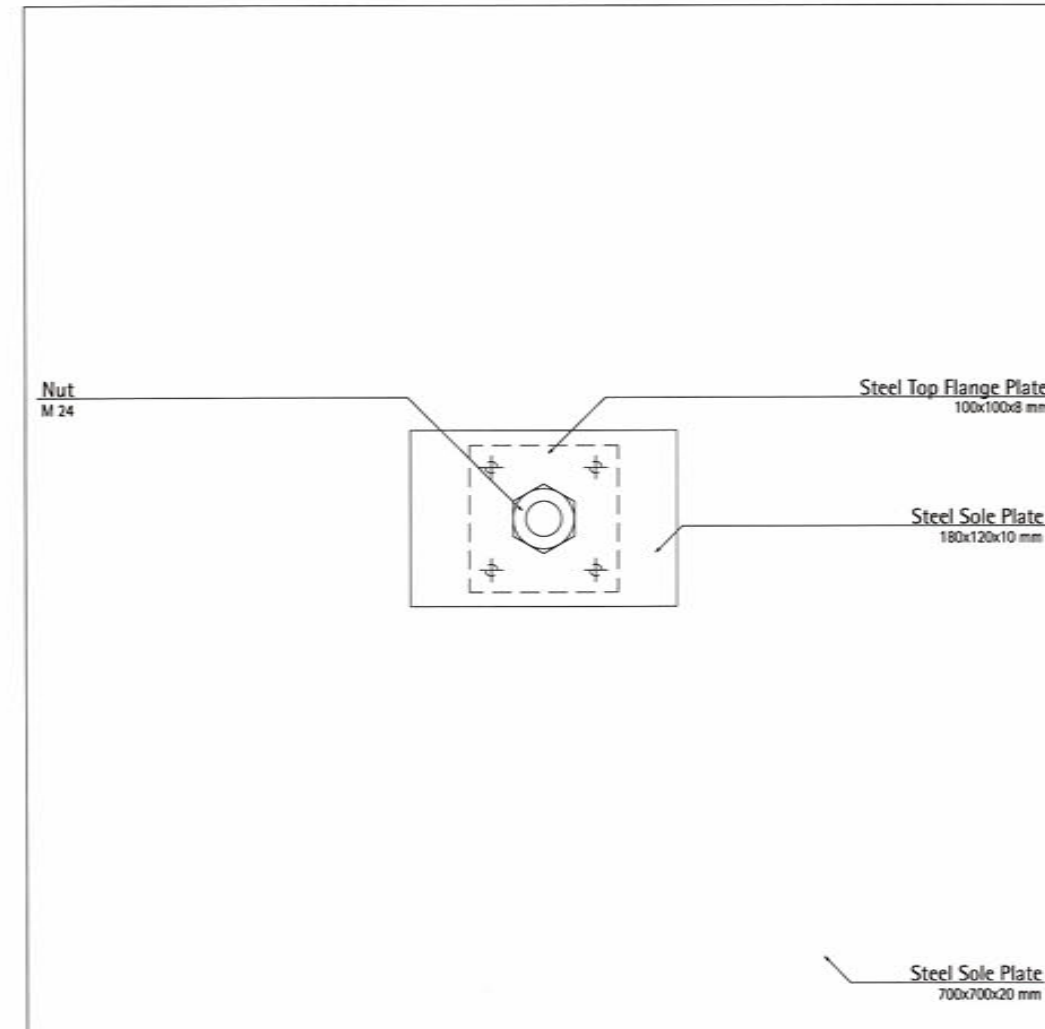
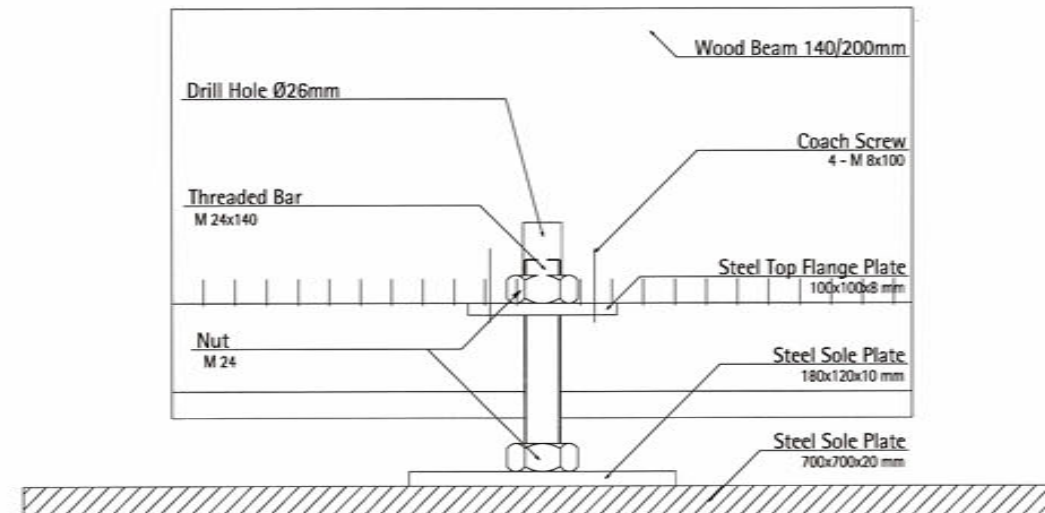


All Welded Joints  
 $\triangle a = 3\text{mm}$



**1**  
S5

**Stand 1**  
Scale 1:5



**2**  
S5

**Stand 2**  
Scale 1:5



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 64287 Darmstadt  
 www.solardecathlon.de  
 fg@ee.tu-darmstadt.de

wood board, structural  
 wood board, interior  
 metal building material  
 insulation  
 solid element

Seal and Permit  
 J.A. STAHL  
 MEMBER 13657  
 01.03.02  
 YFL. BIRL. DAY

NO.	DESCRIPTION	DATE
1	Issues for Deliverable	01/03/02

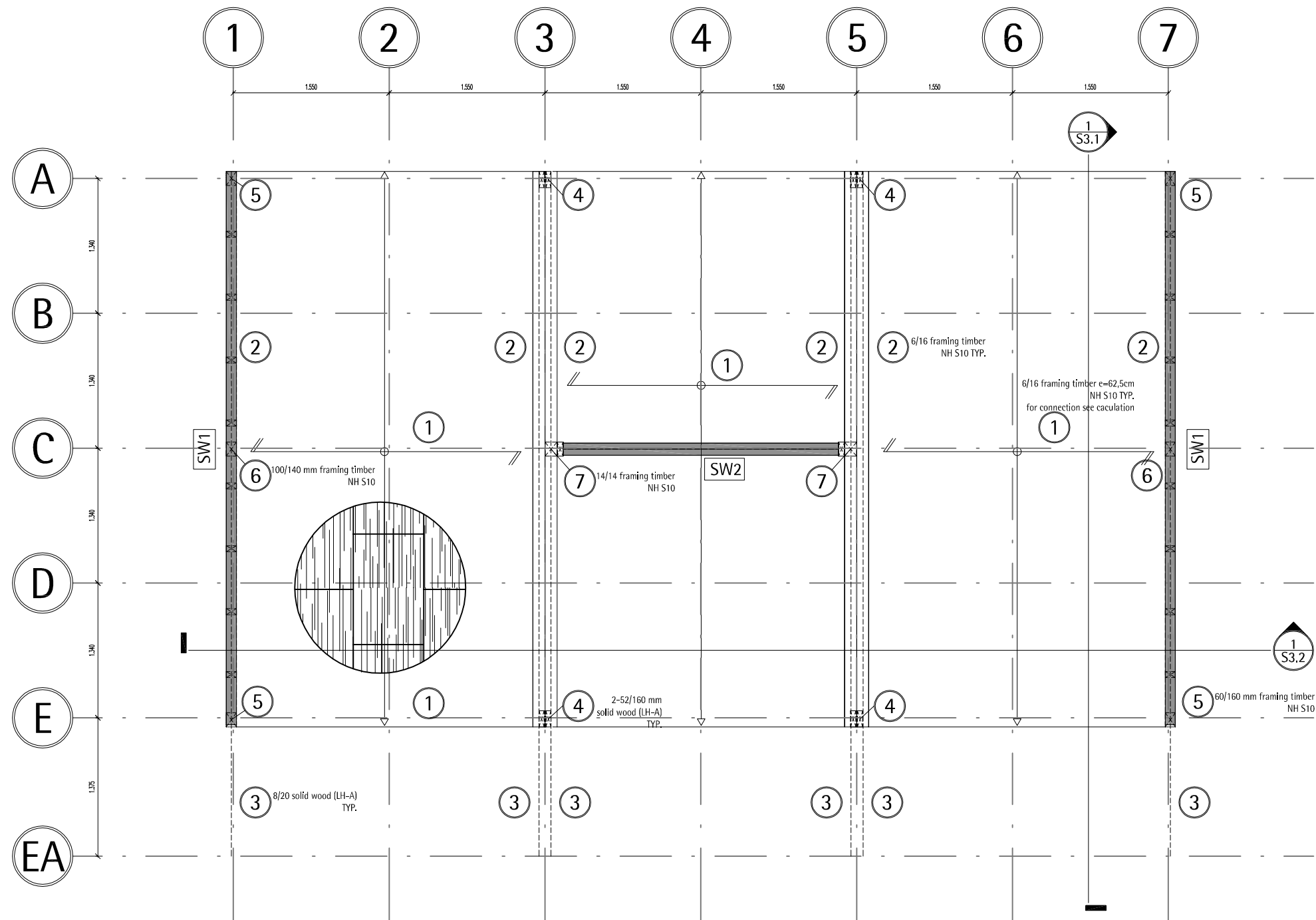
NO.	DESCRIPTION	SCALE
1	Stand Detail 1	1:5
2	Stand Detail 2	1:5

DRIVING NUMBER

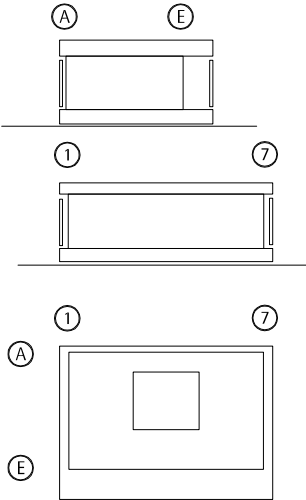
**S5**

COMPONENT

**Structure**



Shearwall schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @sheet edges and 100 o.c. @ intermediate studs. Blocking not required.



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Seal and Permit

1	Deliverables	27/07/07	Is
INDEX	DESCRIPTION	DATE	NAME
1	Position plan roof		

DRAWING NUMBER

P1

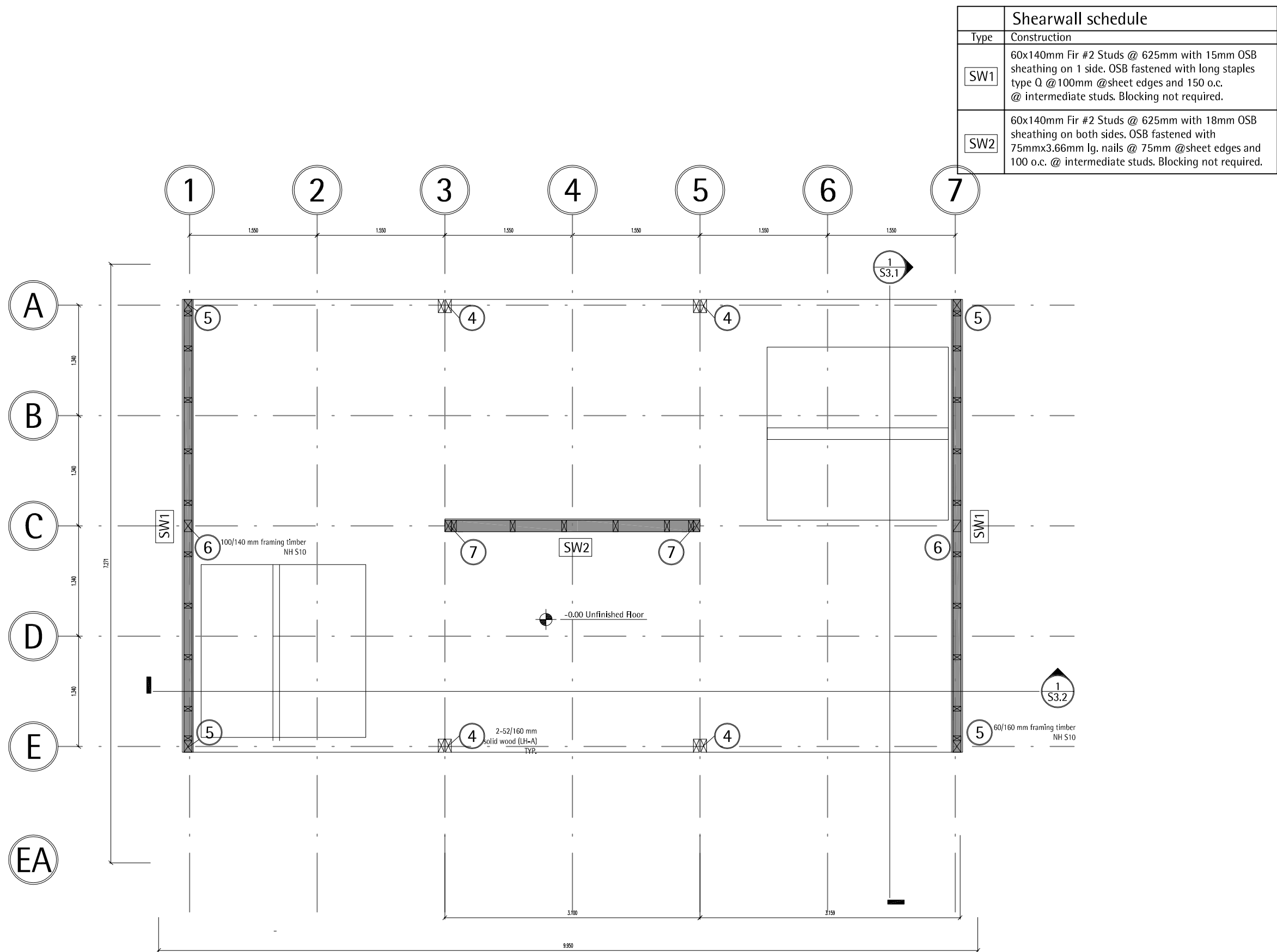
COMPONENT

Position plan roof

1  
P1  
Position plan roof  
Scale 1:50







Shearwall schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @sheet edges and 100 o.c. @ intermediate studs. Blocking not required.

A

E

1

7

1

7

A

E

1

7

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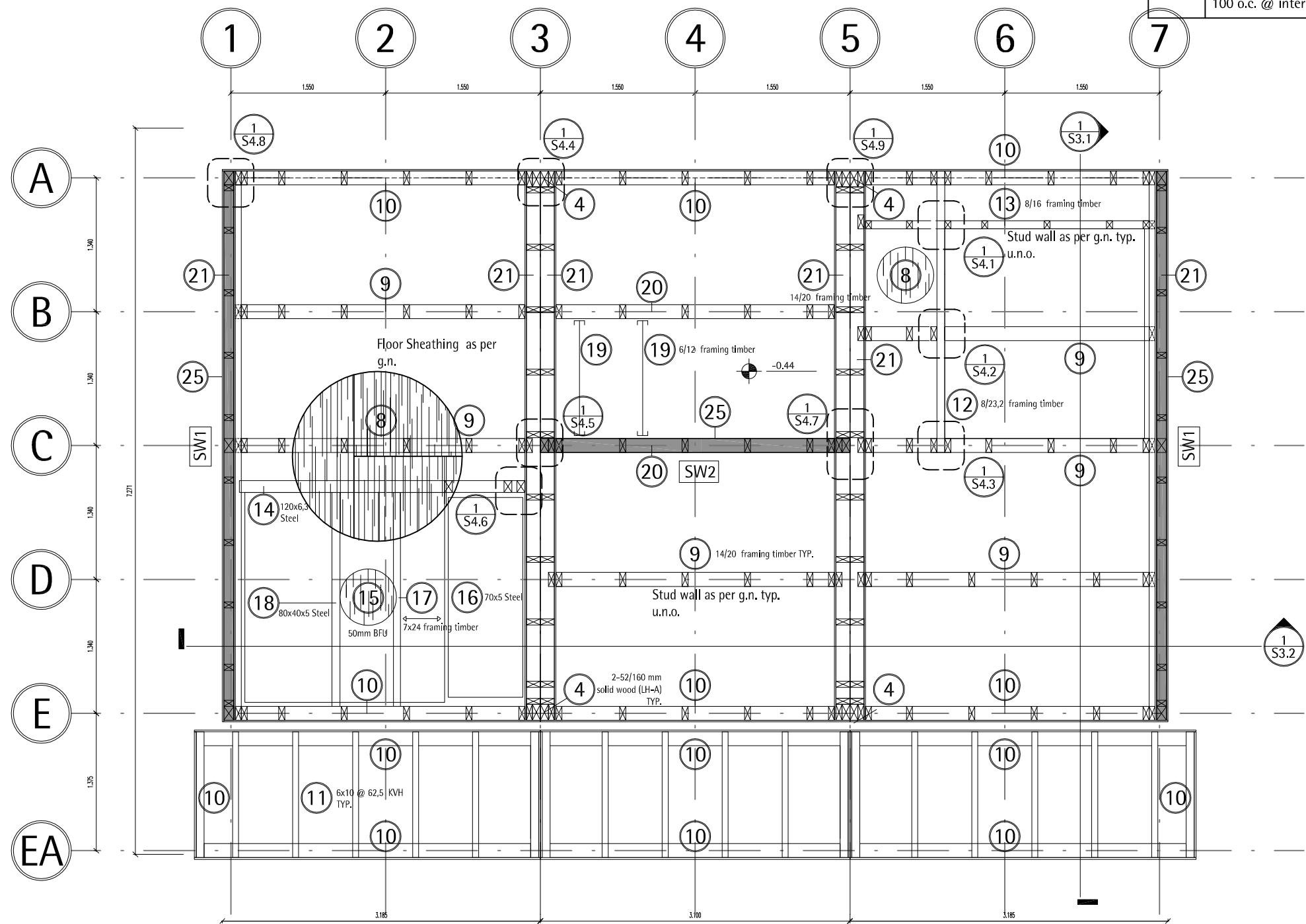
Seal and Permit

1	Deliverables	07/07/07	Is
INDEX	DESCRIPTION	DATE	NAME

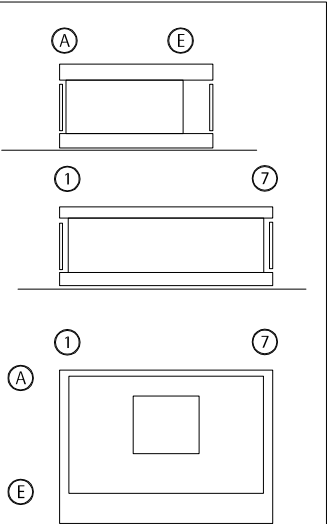
INDEX	DESCRIPTION	SCALE
1	Pos. plan walls / studs	1:50


DRAWING NUMBER  
**P2**

COMPONENT  
**Pos. Plan reinforcing**



Shearwall schedule	
Type	Construction
SW1	60x140mm Fir #2 Studs @ 625mm with 15mm OSB sheathing on 1 side. OSB fastened with long staples type Q @ 100mm @sheet edges and 150 o.c. @ intermediate studs. Blocking not required.
SW2	60x140mm Fir #2 Studs @ 625mm with 18mm OSB sheathing on both sides. OSB fastened with 75mmx3.66mm lg. nails @ 75mm @sheet edges and 100 o.c. @ intermediate studs. Blocking not required.





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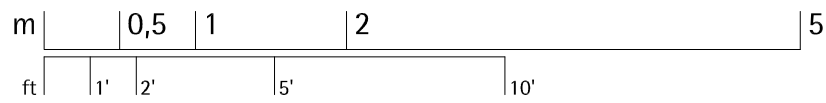
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64287 Darmstadt  
[www.solardecathlon.de](http://www.solardecathlon.de)  
[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

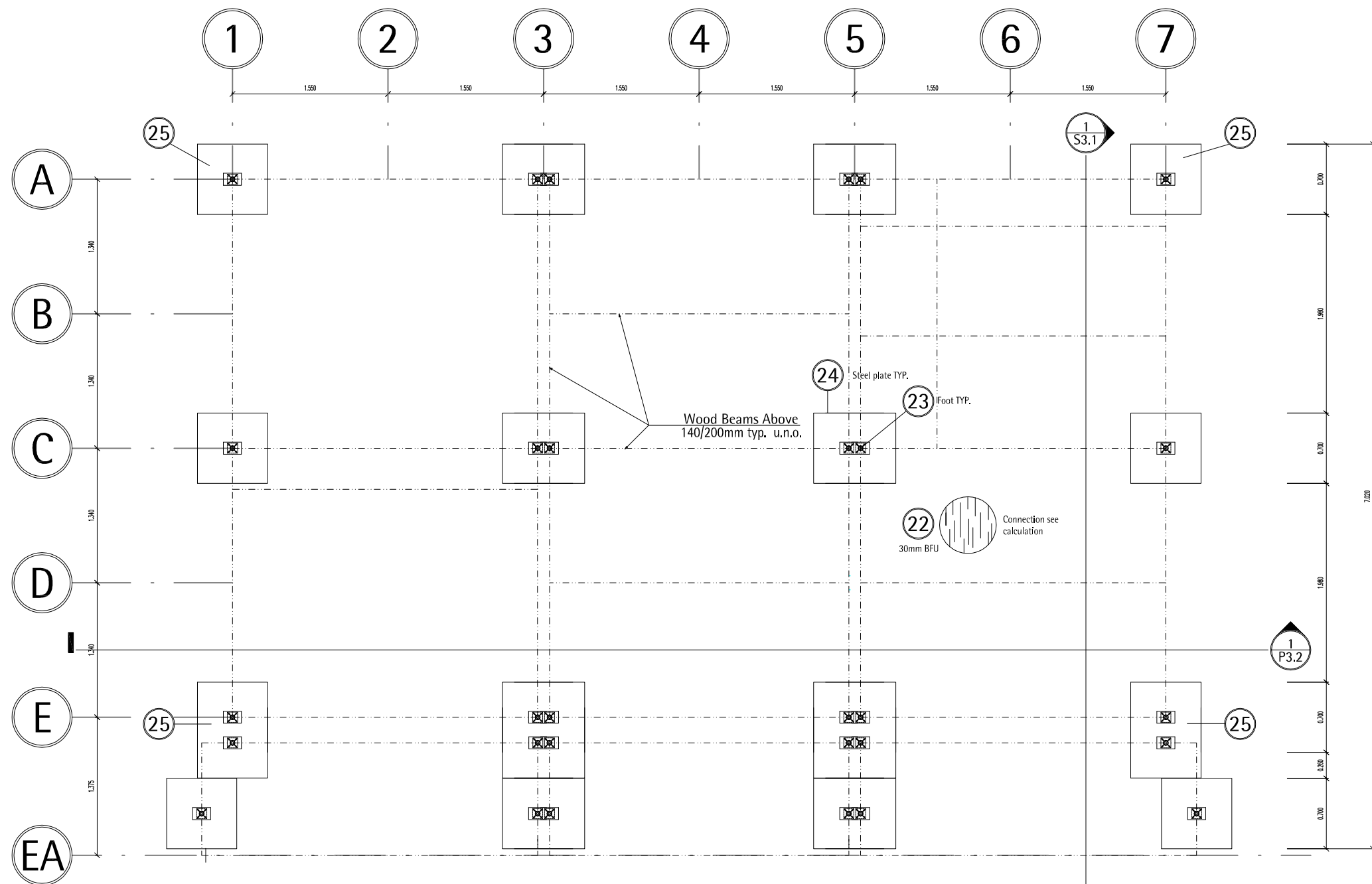
Seal and Permit

INDEX	DESCRIPTION	DATE	NAME
1	Deliverables	07/07/07	Is
1	Pos. plan platform		

DRAWING NUMBER  
**P3**  
COMPONENT  
**Pos. plan platfom**

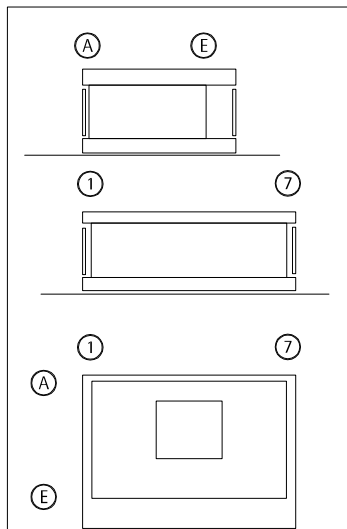
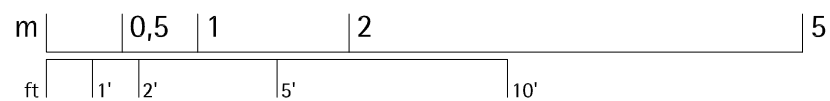
**1**  
**P3** Position plan platform  
Scale 1:50





**1**  
P4

**Position plan foundation**  
Scale 1:50





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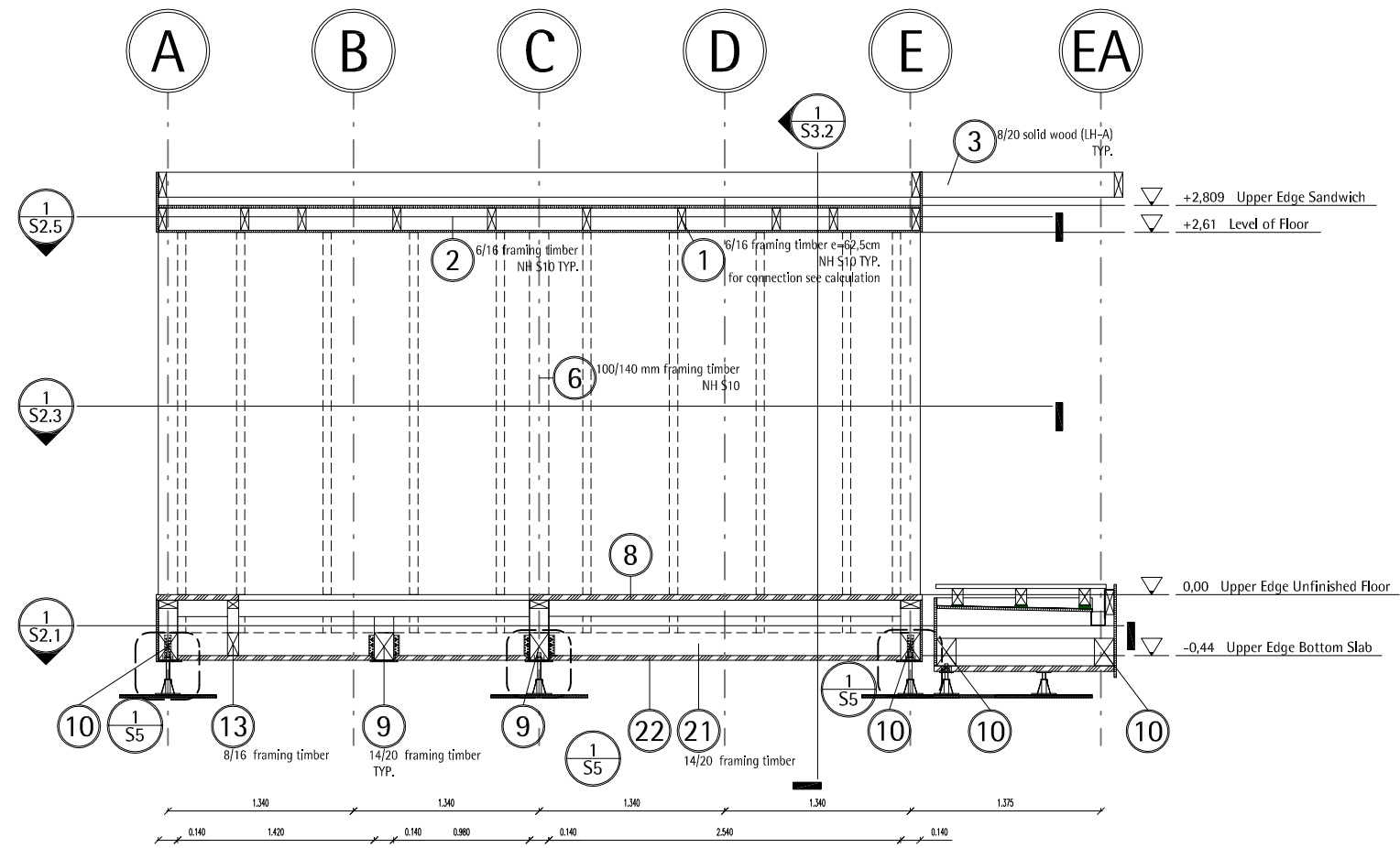
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[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

Seal and Permit

1	Deliverables	07/07/07	Is
INDEX	DESCRIPTION	DATE	NAME
1	Pos. plan foundation		

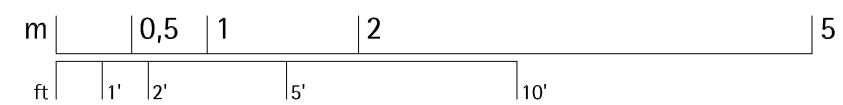
DRAWING NUMBER  
**P4**

COMPONENT  
**Pos. plan foundation**



**1**  
**P5**

**Position plan cross section**  
 Scale 1:50





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Seal and Permit

1	Deliverables	07/07/07	Is
INDEX	DESCRIPTION	DATE	NAME
1	Pos. plan cross section		

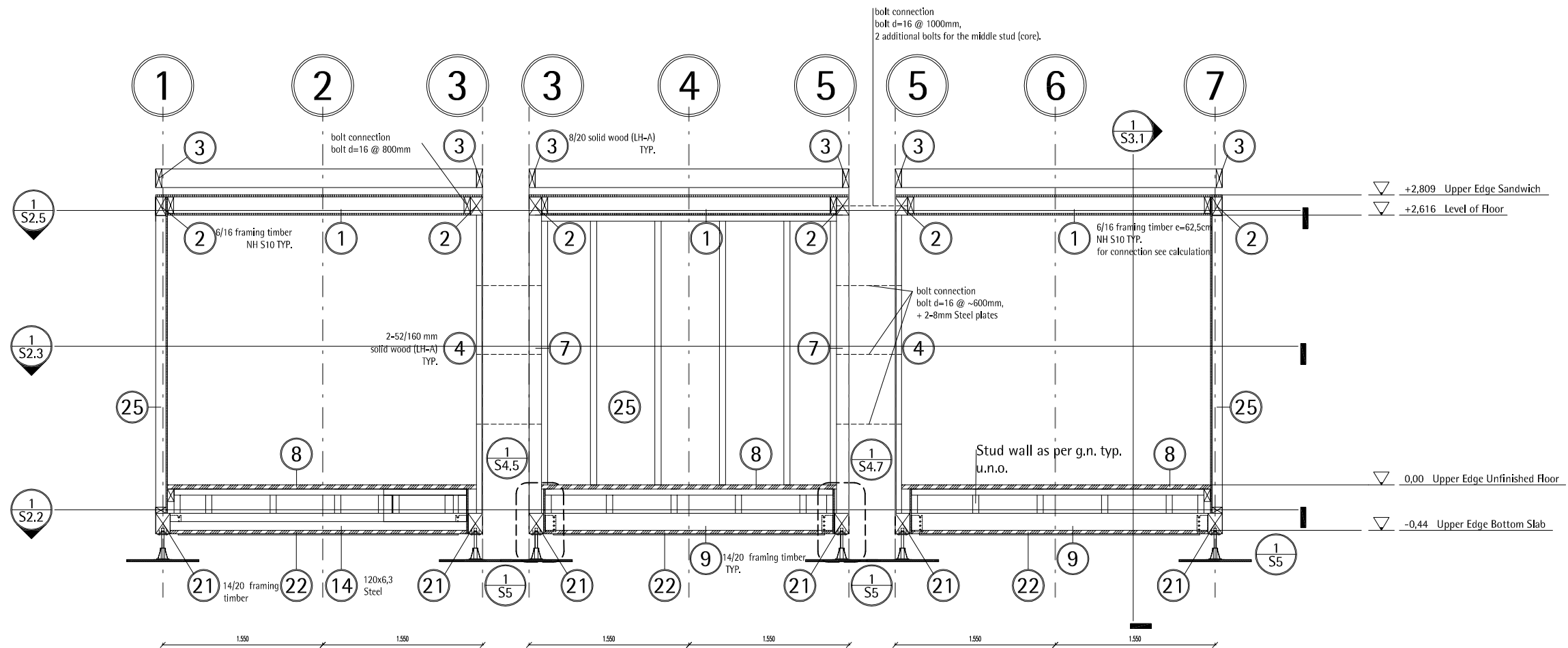
INDEX	DESCRIPTION	SCALE
1	Pos. plan cross section	1:50

DRAWING NUMBER

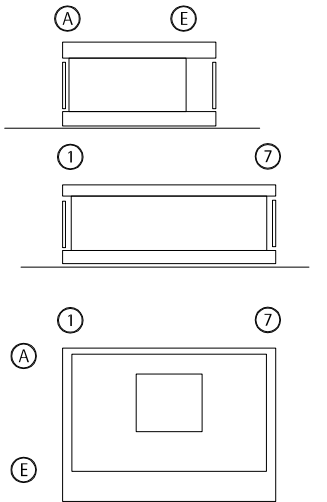
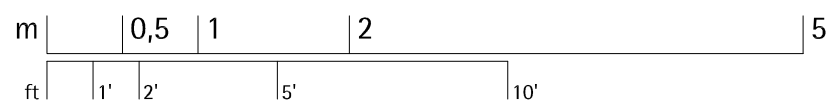
P5

COMPONENT

Pos.plan cross section



**1**  
P6 Position plan longitudinal section  
Scale 1:50



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Seal and Permit

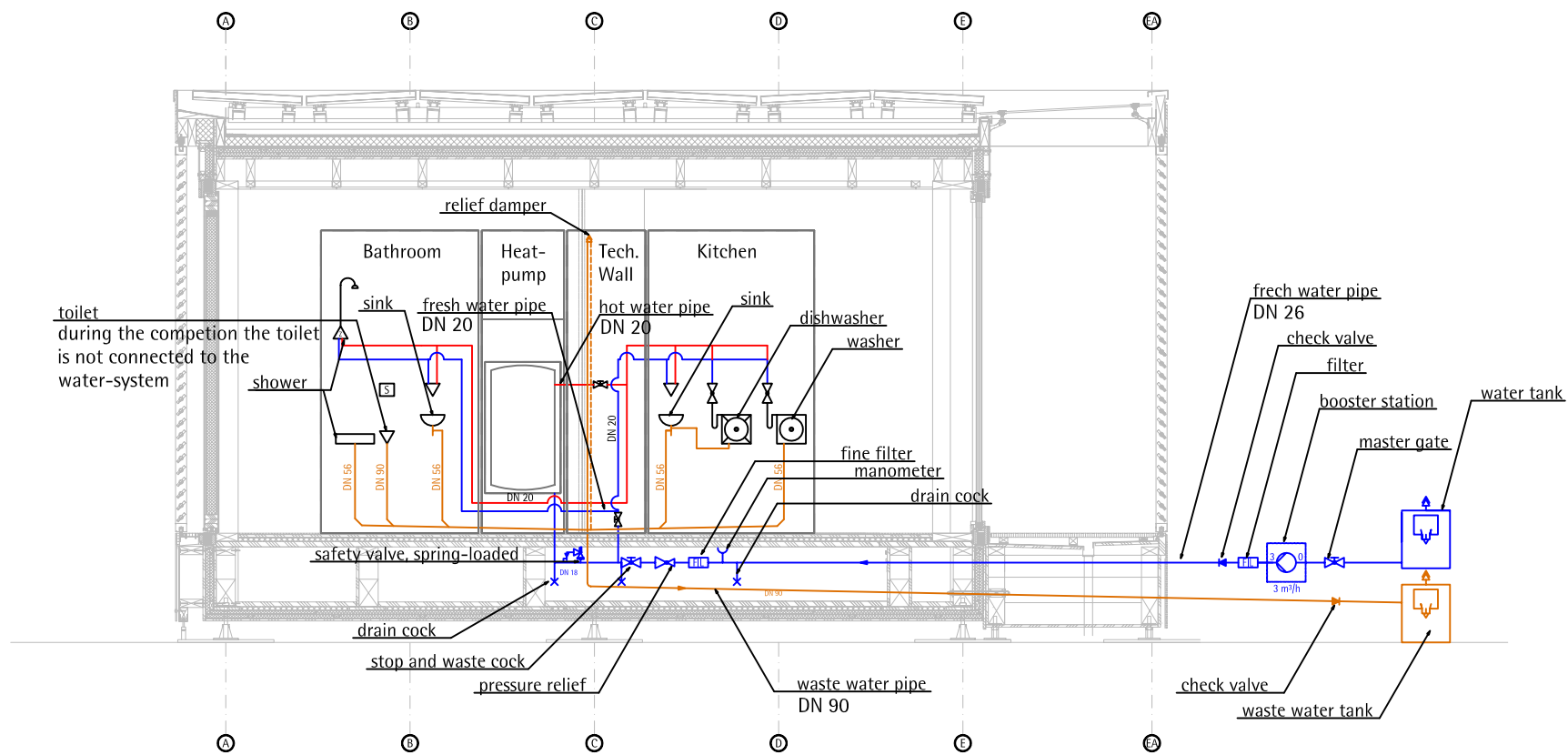
1	Deliverables	07/07/07	Is
INDEX	DESCRIPTION	DATE	NAME
1	Pos. plan long. section		

DRAWING NUMBER

**P6**

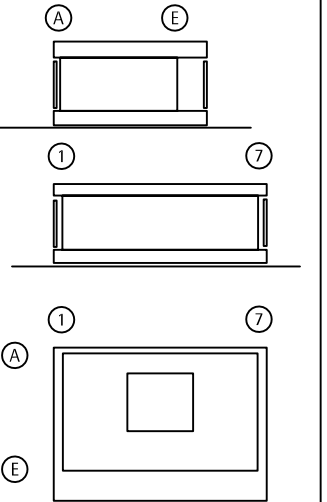
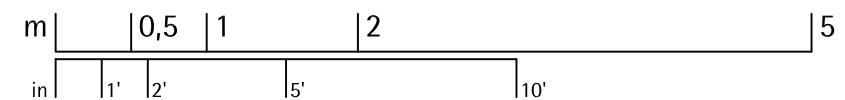
COMPONENT

**Pos.plan long. section**



1  
H1.0

**Cross Section**  
Scale 1:50



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	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


1	august-deliverables	02.08.07	MAHA
INDEX	DESCRIPTION	DATE	NAME

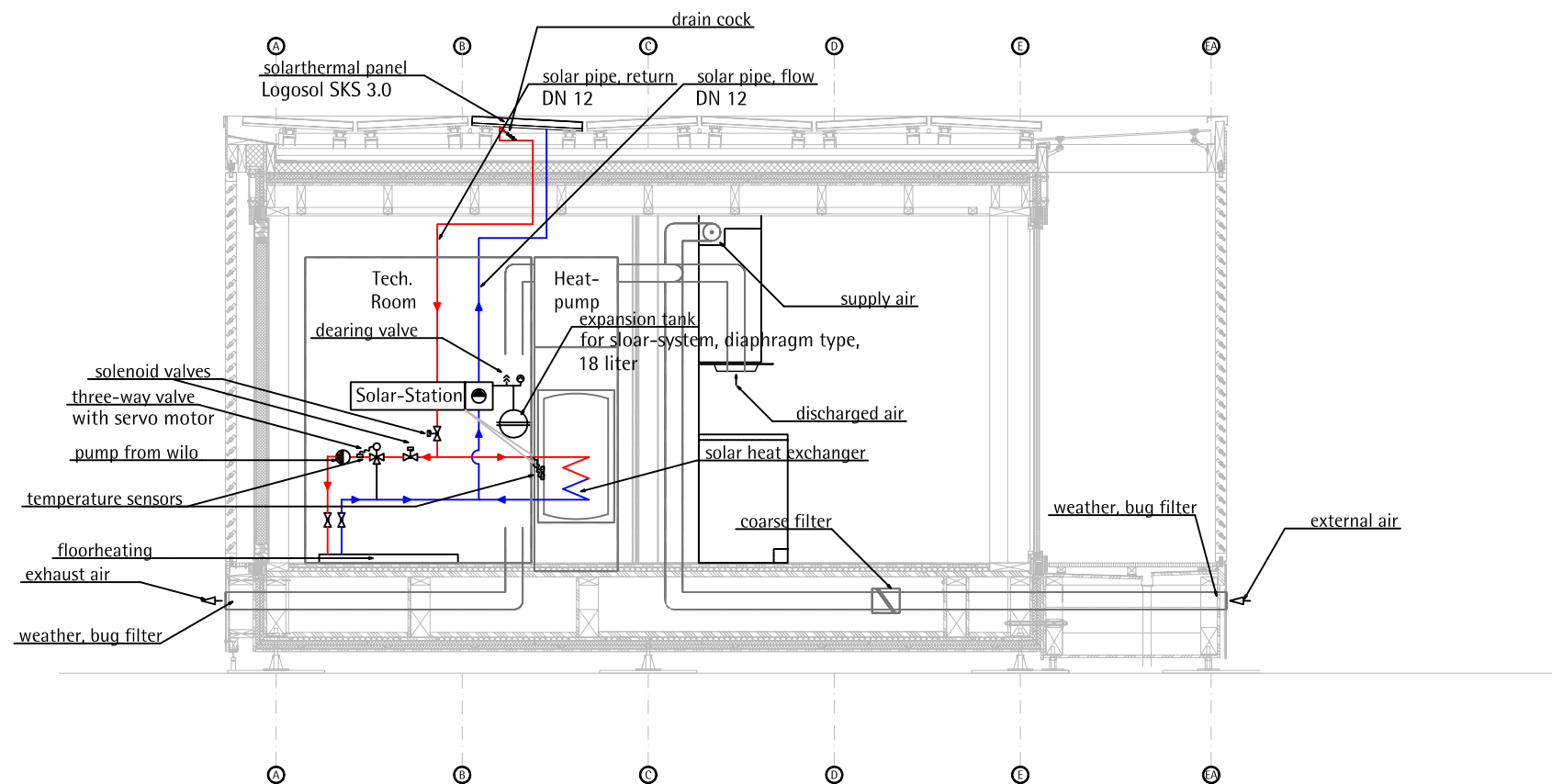
INDEX	DESCRIPTION	SCALE
	Water-System	M 1:50

TRAINING NUMBER

**H1.0**

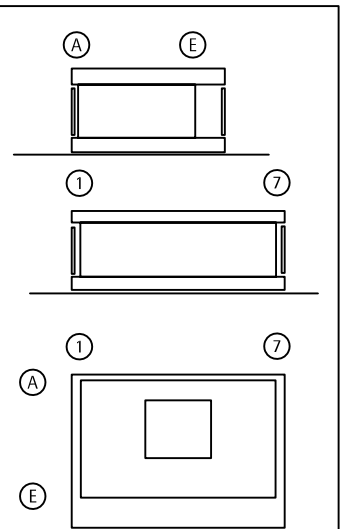
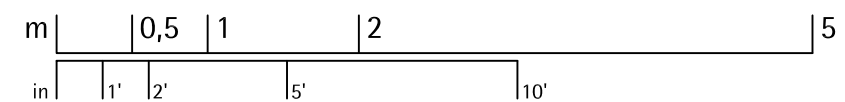
COMPONENT

**Tech. Wat.**



1  
H1.1

Cross Section  
Scale 1:50



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[fg@ec.tu-darmstadt.de](mailto:fg@ec.tu-darmstadt.de)

	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant


1	august deliverables	02.08.07	MAHA
INDEX	DESCRIPTION	DATE	NAME

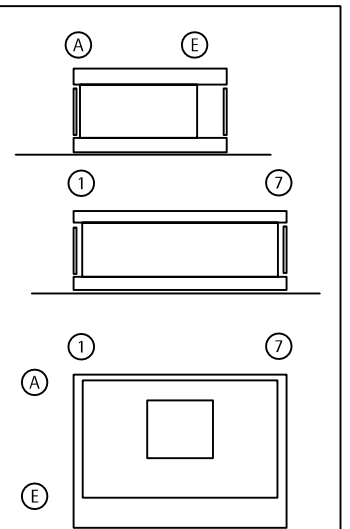
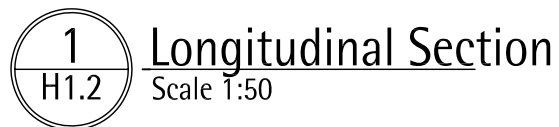
INDEX	DESCRIPTION	SCALE
1	Ventilation, Heating	M 1:50
	Cooling, Solar	
	Heat Recovery	

DRAWING NUMBER






H1.1

COMPONENT

HAVAC-SO



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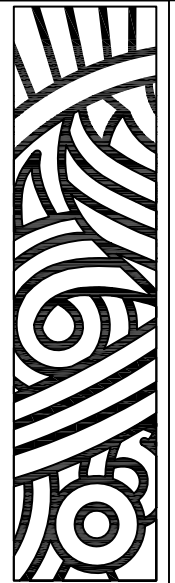
	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

DRAWING NUMBER	H1.2
COMPONENT	Passive co.










m		0,5	1	2		5
in		1'	2'	5'	10'	



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



	wood board, structural
	wood board, interior
	metal building material
	insulation
	joint sealant

**DRAWING NUMBER**

## COMPONENT

## Tech. Plan

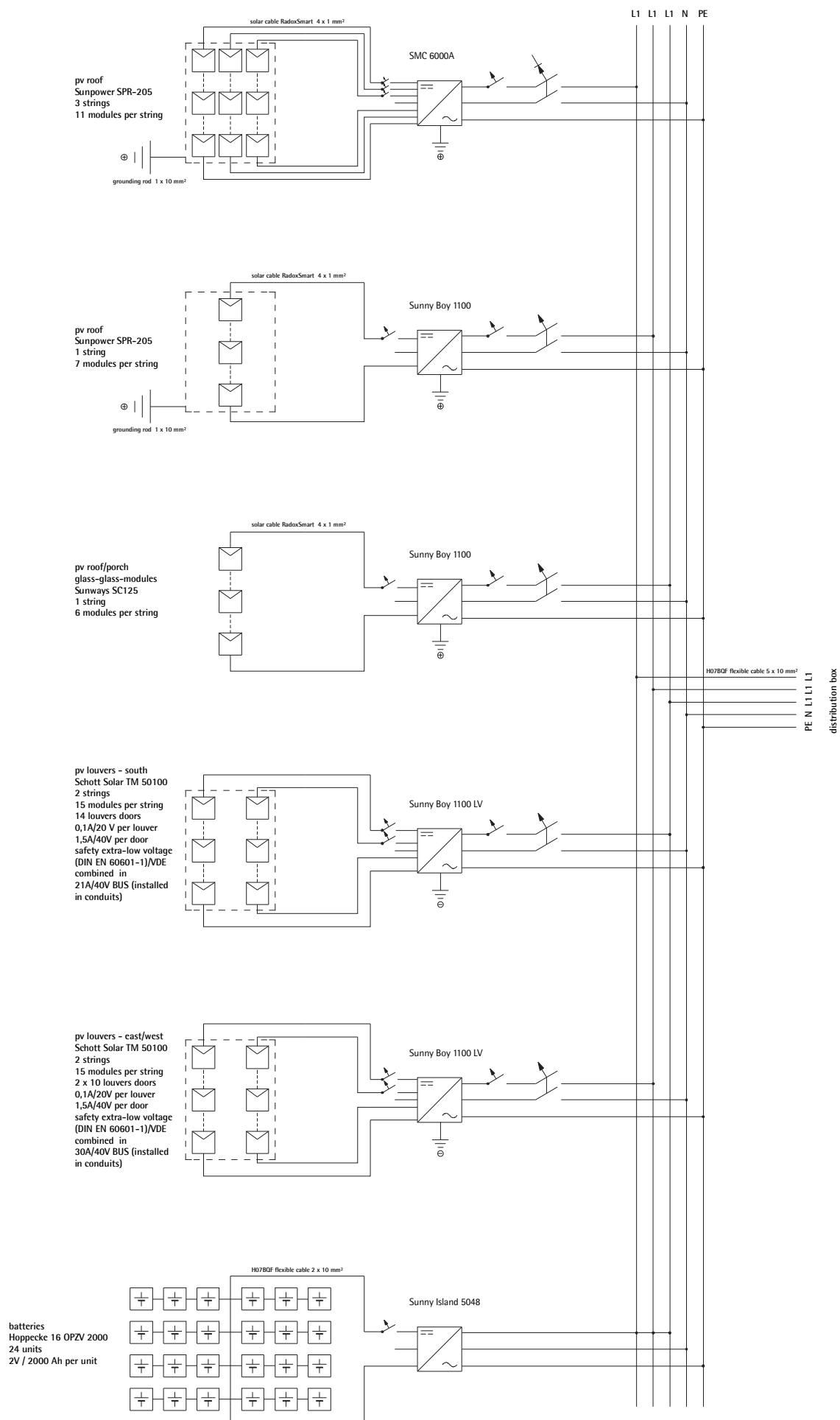
Legend

-  photovoltaics
-  grounding
-  battery
-  inverter
-  ground fault circuit interrupter
-  direct current switch

1

E 1.0

PV scheme - dc installation - overview



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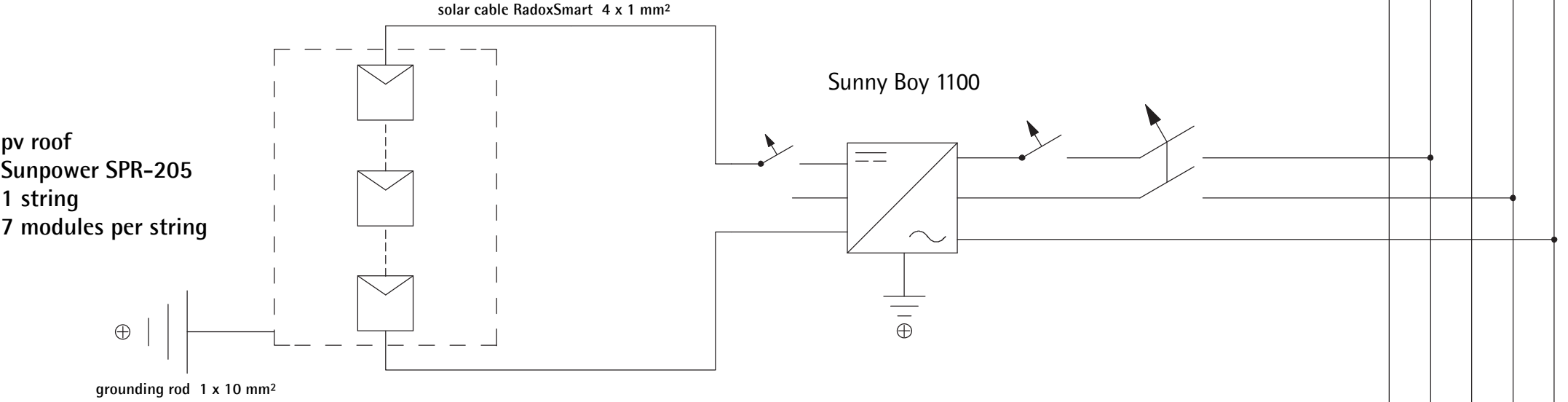
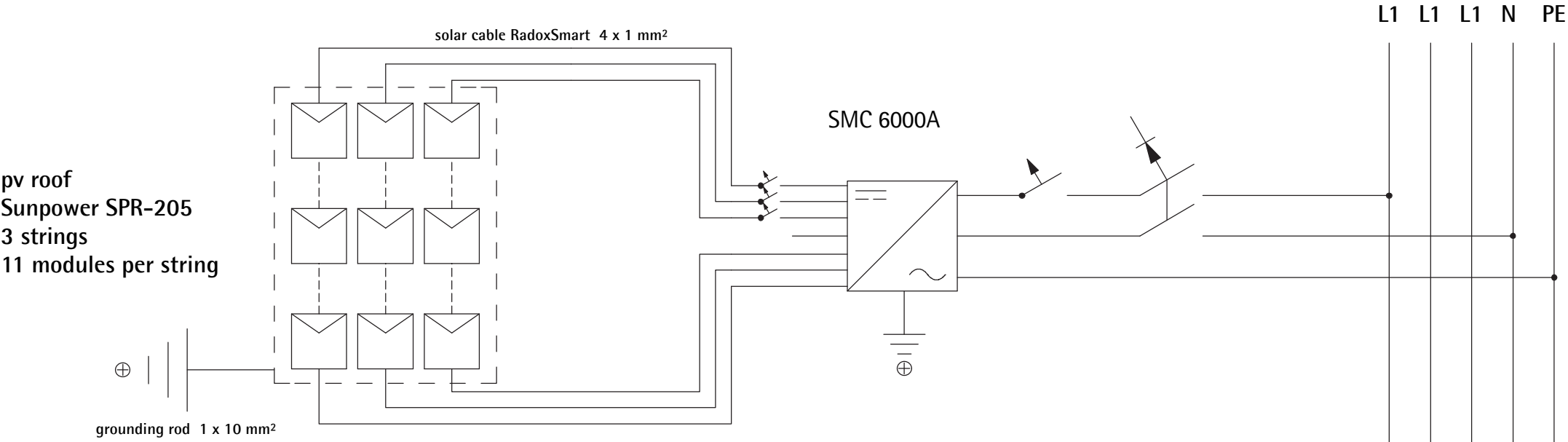
0	pv scheme	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
0	pv scheme - overview	none	
	dc installation		

DRAWING NUMBER

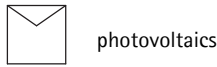
E 1.0

COMPONENT

electrical  
installation



Legend



photovoltaics



grounding



battery



inverter



ground fault circuit interrupter



direct current switch



PV scheme - dc installation - detail 1



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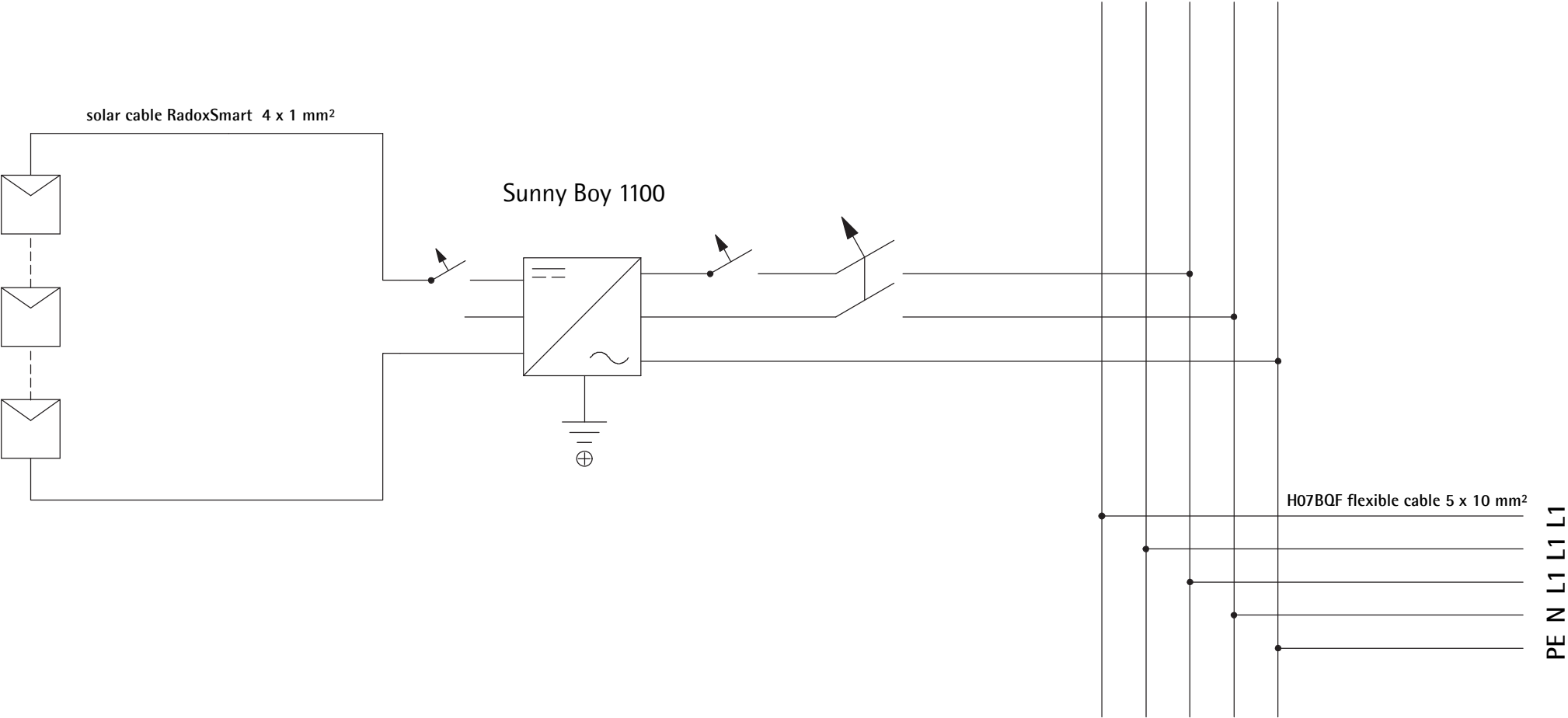
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1	pv scheme	030807	toko
INDEX	DESCRIPTION	DATE	NAME
1	pv scheme - detail 1		
	dc installation		


DRAWING NUMBER	E 1.1
COMPONENT	electrical installation


pv roof/porch  
glass-glass-modules  
Sunways SC125  
1 string  
6 modules per string




Legend


 photovoltaics

 grounding

 battery

 inverter

 ground fault circuit interrupter

 direct current switch

3

E 1.2

PV scheme - dc installation - detail 2

distribution box



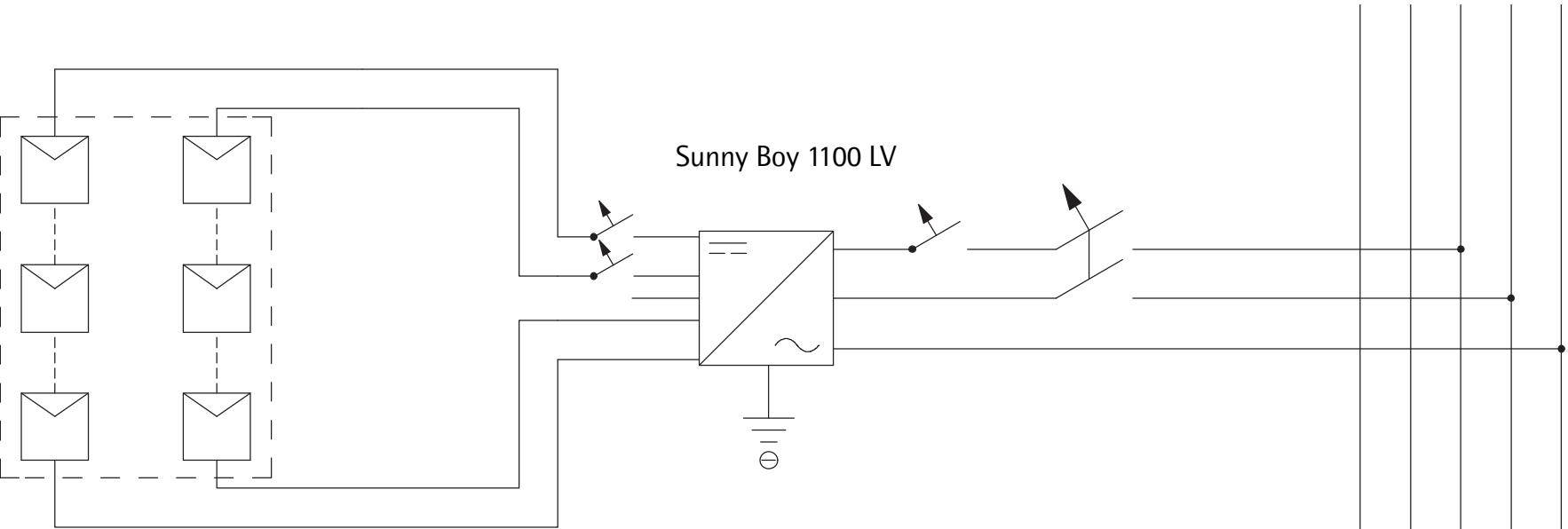
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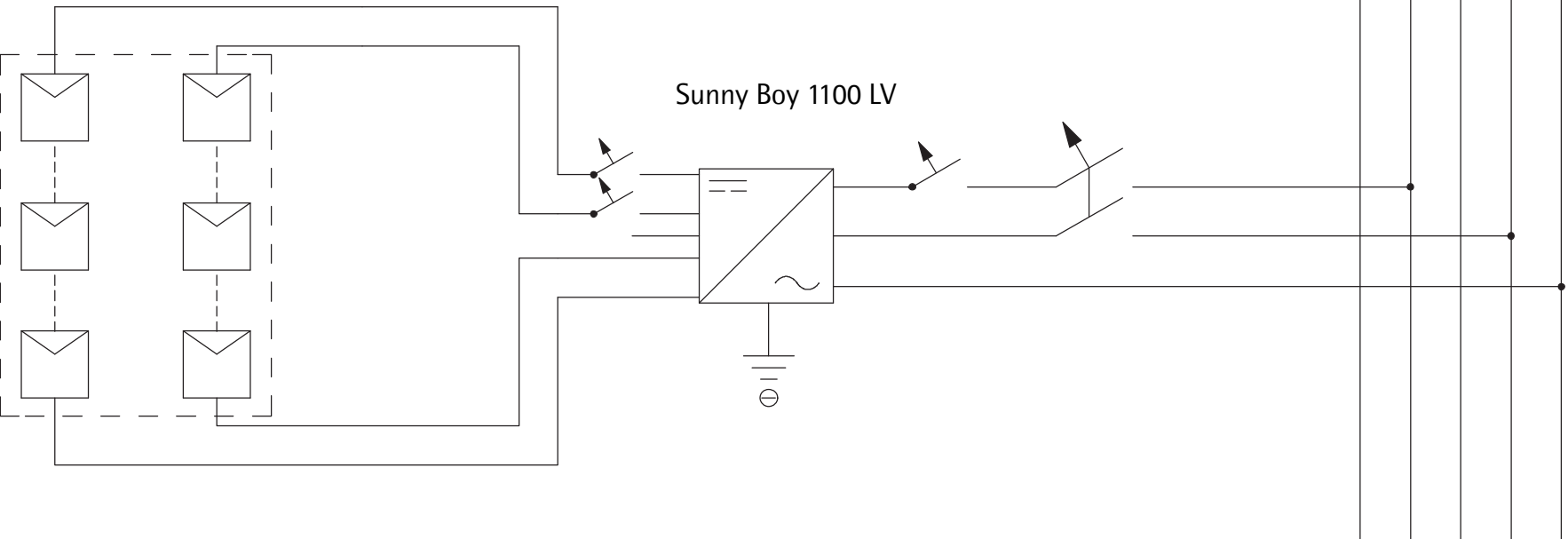
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3	pv scheme	030807	toko		
INDEX	DESCRIPTION	DATE	NAME		
INDEX	DESCRIPTION		SCALE		
3	pv scheme - detail 2		none		
	dc installation				
DRAWING NUMBER					
E 1.2					
COMPONENT					
electrical installation					


pv louvers - south  
Schott Solar TM 50100  
2 strings  
15 modules per string  
14 louvers doors  
0,1A/20 V per louver  
1,5A/40V per door  
safety extra-low voltage  
(DIN EN 60601-1)/VDE  
combined in  
21A/40V BUS (installed  
in conduits)





pv louvers - east/west  
Schott Solar TM 50100  
2 strings  
15 modules per string  
2 x 10 louvers doors  
0,1A/20V per louver  
1,5A/40V per door  
safety extra-low voltage  
(DIN EN 60601-1)/VDE  
combined in  
30A/40V BUS (installed  
in conduits)



Legend


 photovoltaics

 grounding

 battery

 inverter

 ground fault circuit interrupter

 direct current switch



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3	pv scheme	030807	toko
INDEX	DESCRIPTION	DATE	NAME
3	pv scheme - detail 3		none
	dc installation		

DRAWING NUMBER	E 1.3
COMPONENT	electrical installation


Legend


 photovoltaics

 grounding

 battery

 inverter

 ground fault circuit interrupter

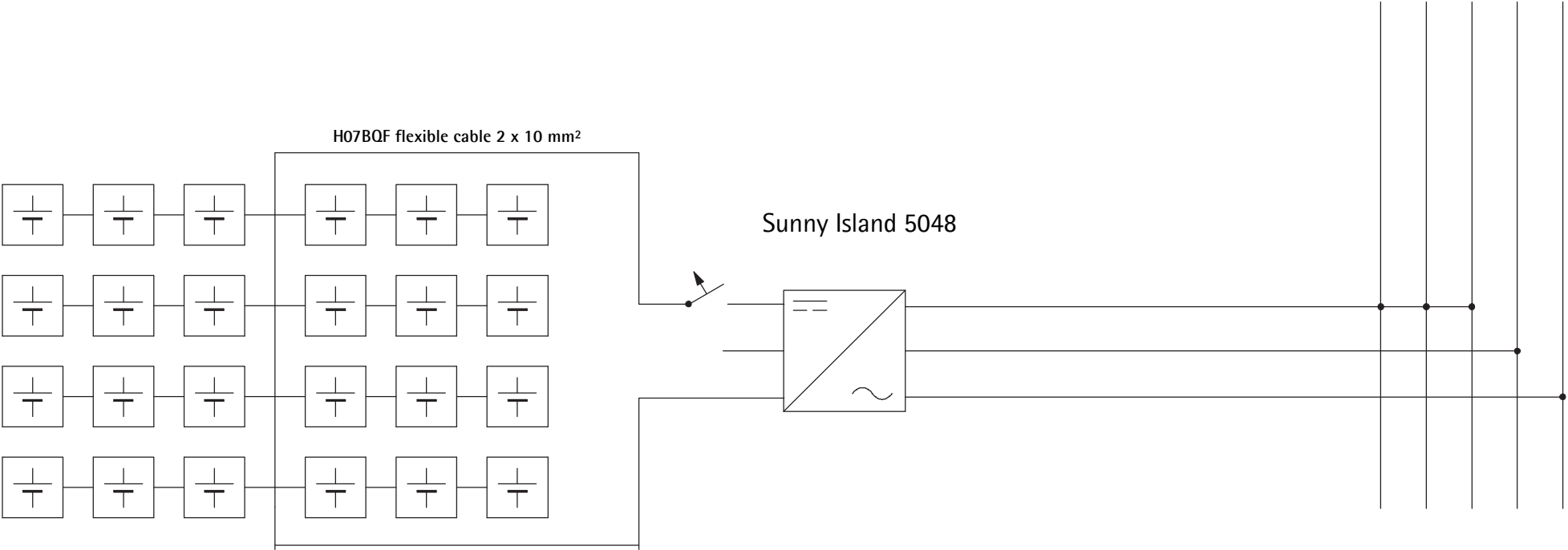
 direct current switch

1

E 1.4

 PV scheme - dc installation - detail 4

batteries  
Hoppecke 16 OPZV 2000  
24 units  
2V / 2000 Ah per unit



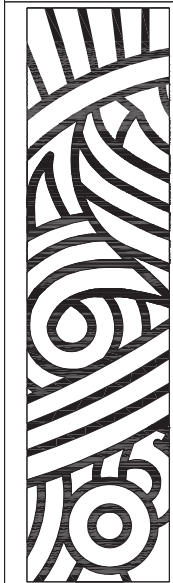
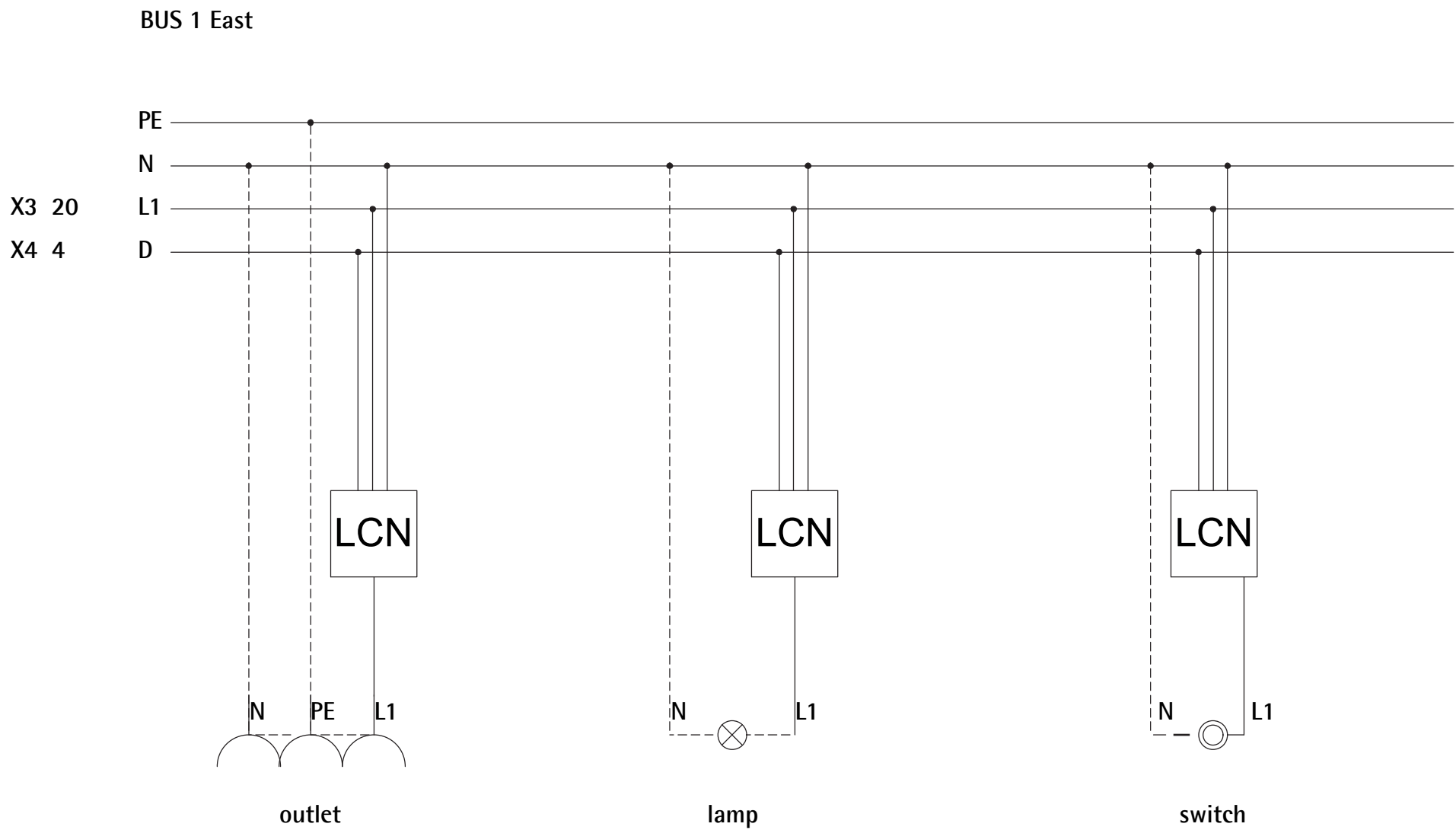
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4	pv scheme	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION		SCALE
4	pv scheme - detail 4		none
	dc installation		

DRAWING NUMBER  
**E 1.4**  
COMPONENT  
**electrical  
installation**

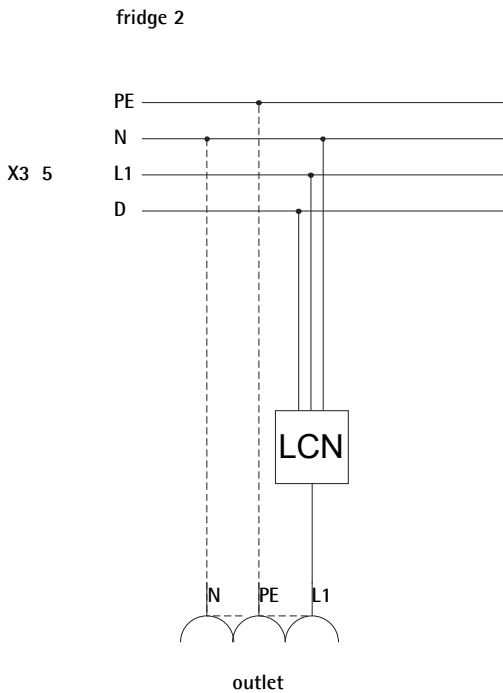
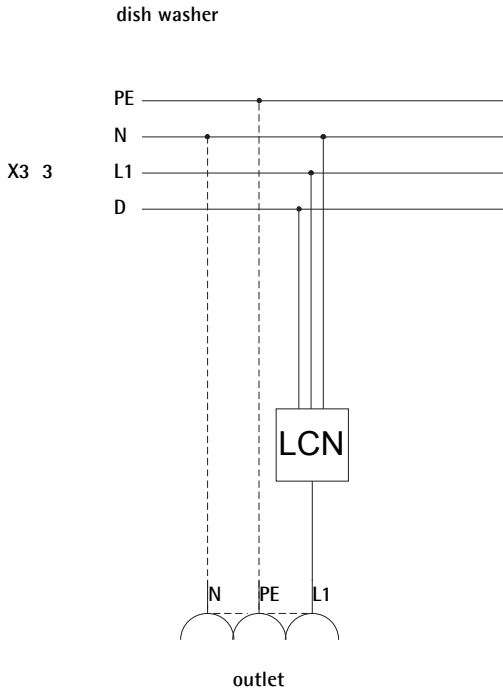
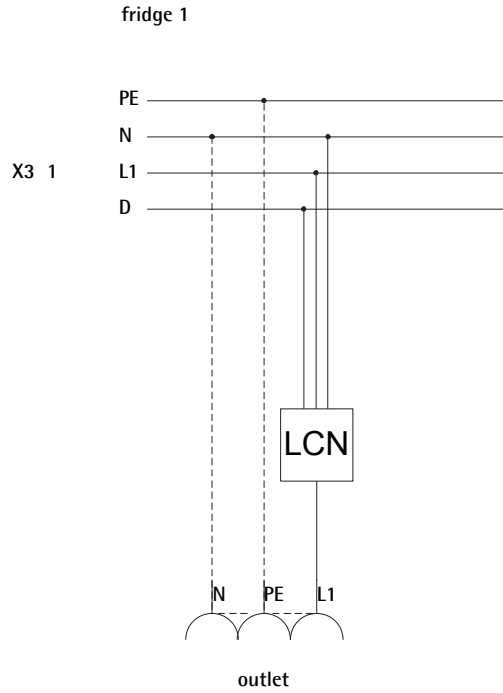
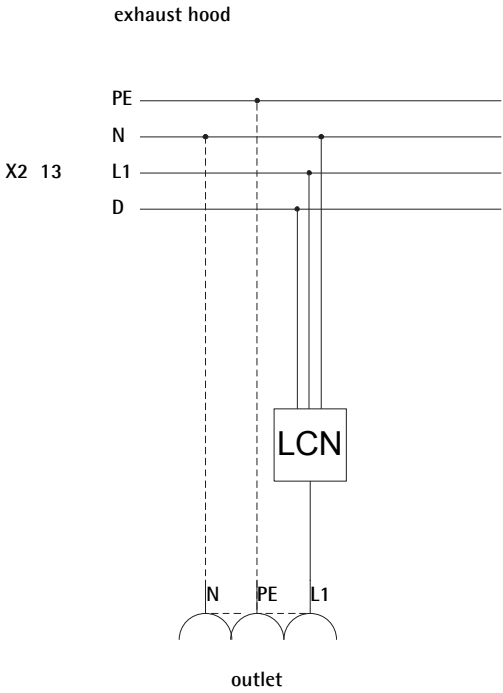
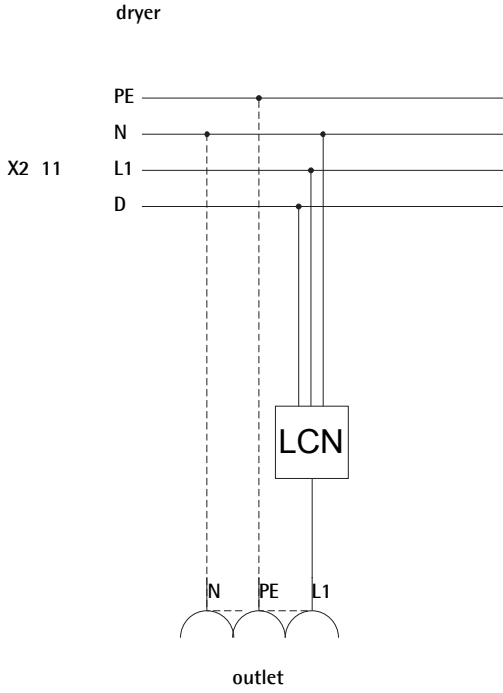
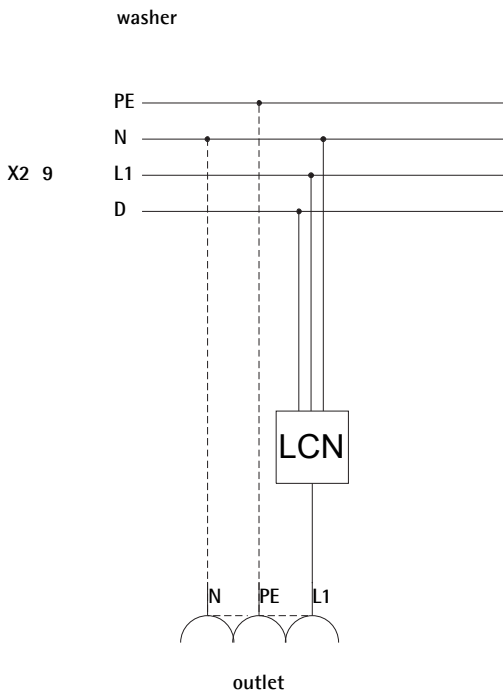
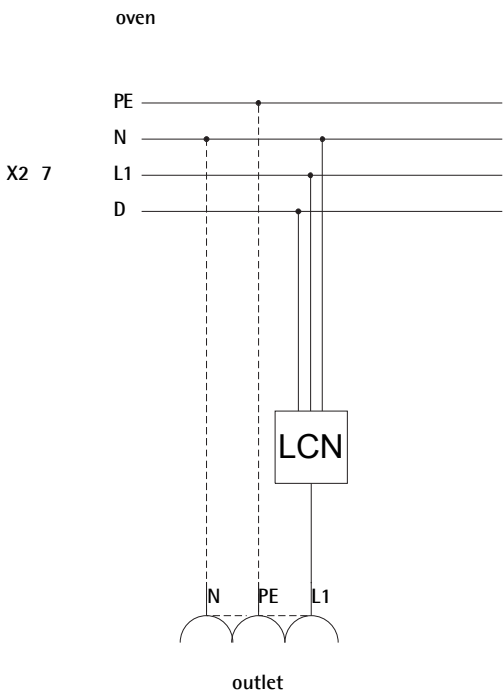
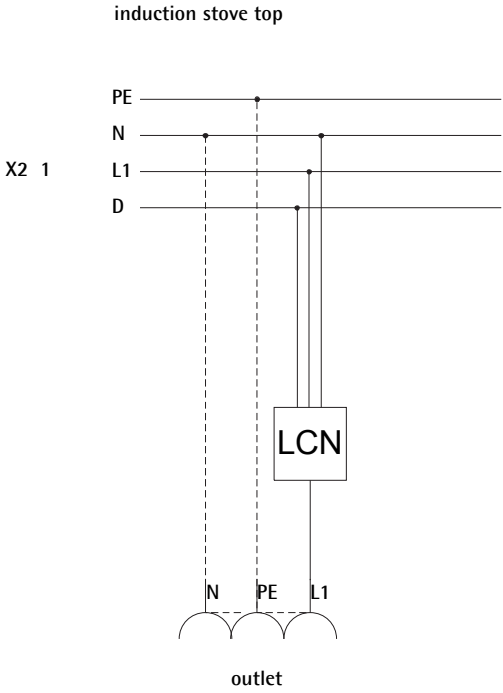


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1	electric circuit bus 1 east	030807	toko
INDEX	DESCRIPTION	DATE	NAME
1	electric circuit bus 1 east	SCALE	



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2	electric circuit kitchen	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION		SCALE
2	electric circuit kitchen		none

DRAWING NUMBER

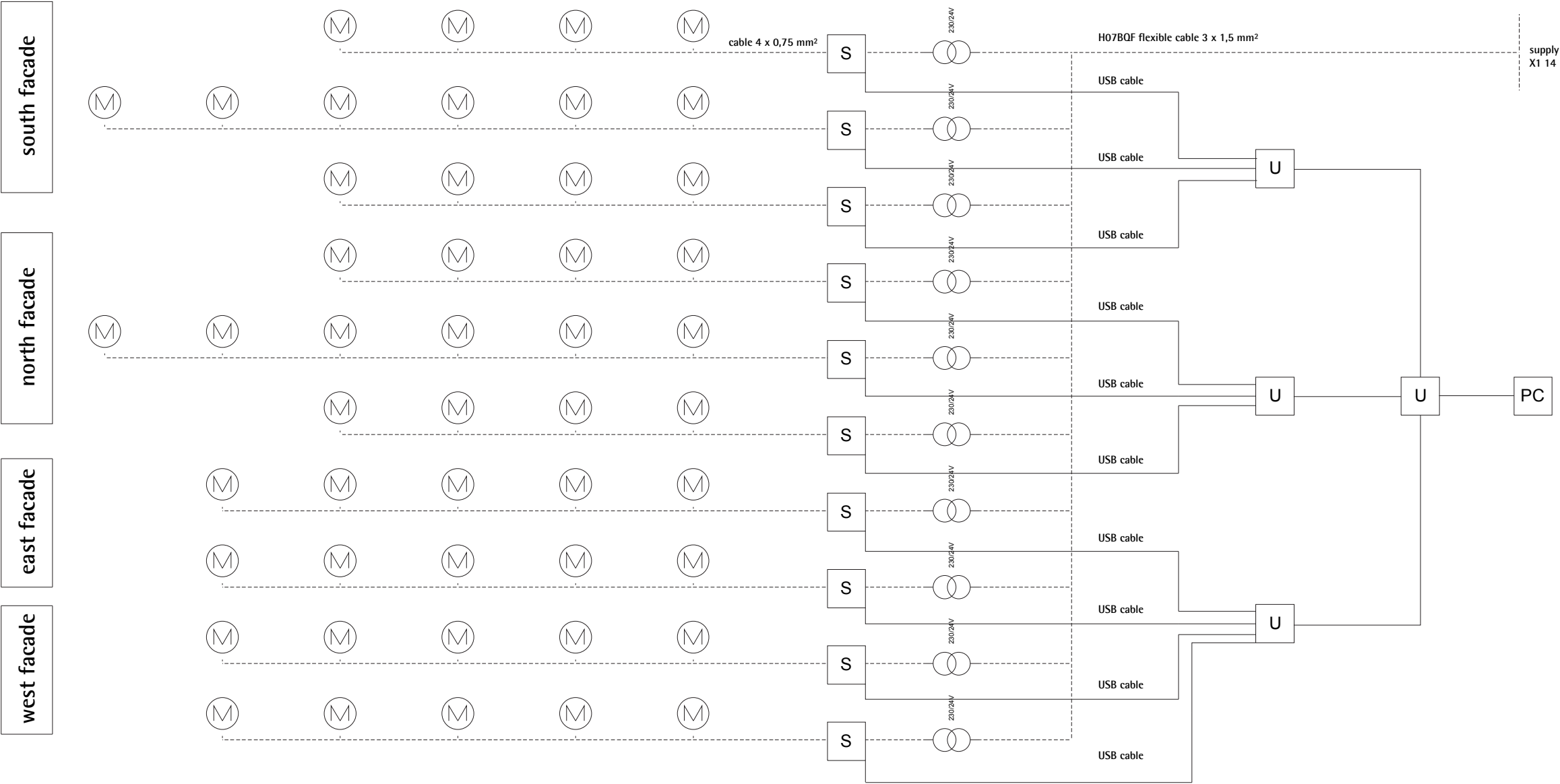
E 2.2

COMPONENT

electrical  
installation



facade controlling system



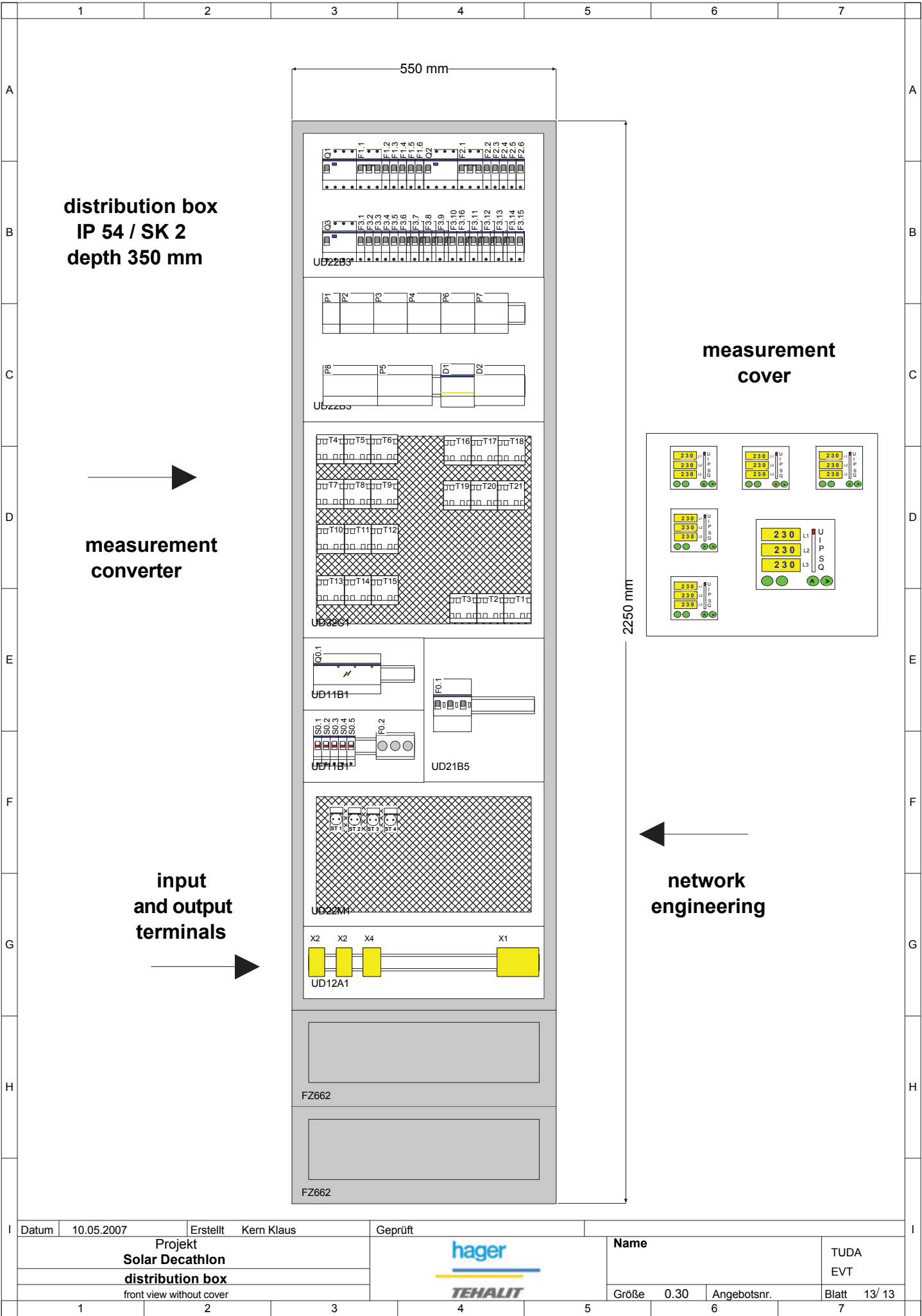
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4	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
4	facade controlling system	none	

DRAWING NUMBER  
**E 2.4.1**  
COMPONENT  
**electrical  
installation**





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INDEX	DESCRIPTION	DATE	NAME
1	distribution box	030807	toko

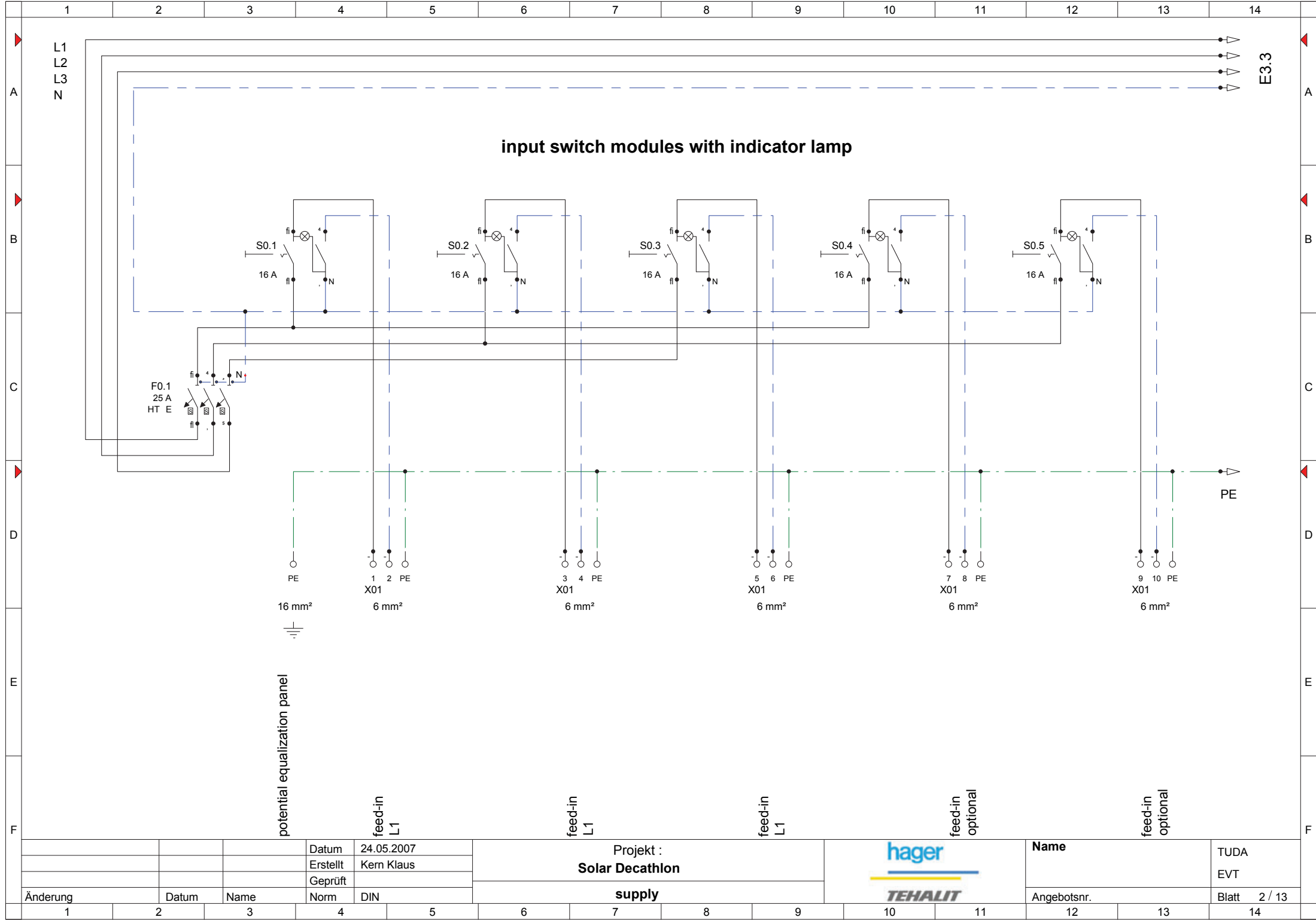
INDEX	DESCRIPTION	SCALE
1	distribution box	none
	ac installation	

DRAWING NUMBER

E 3.1

COMPONENT

electrical  
installation



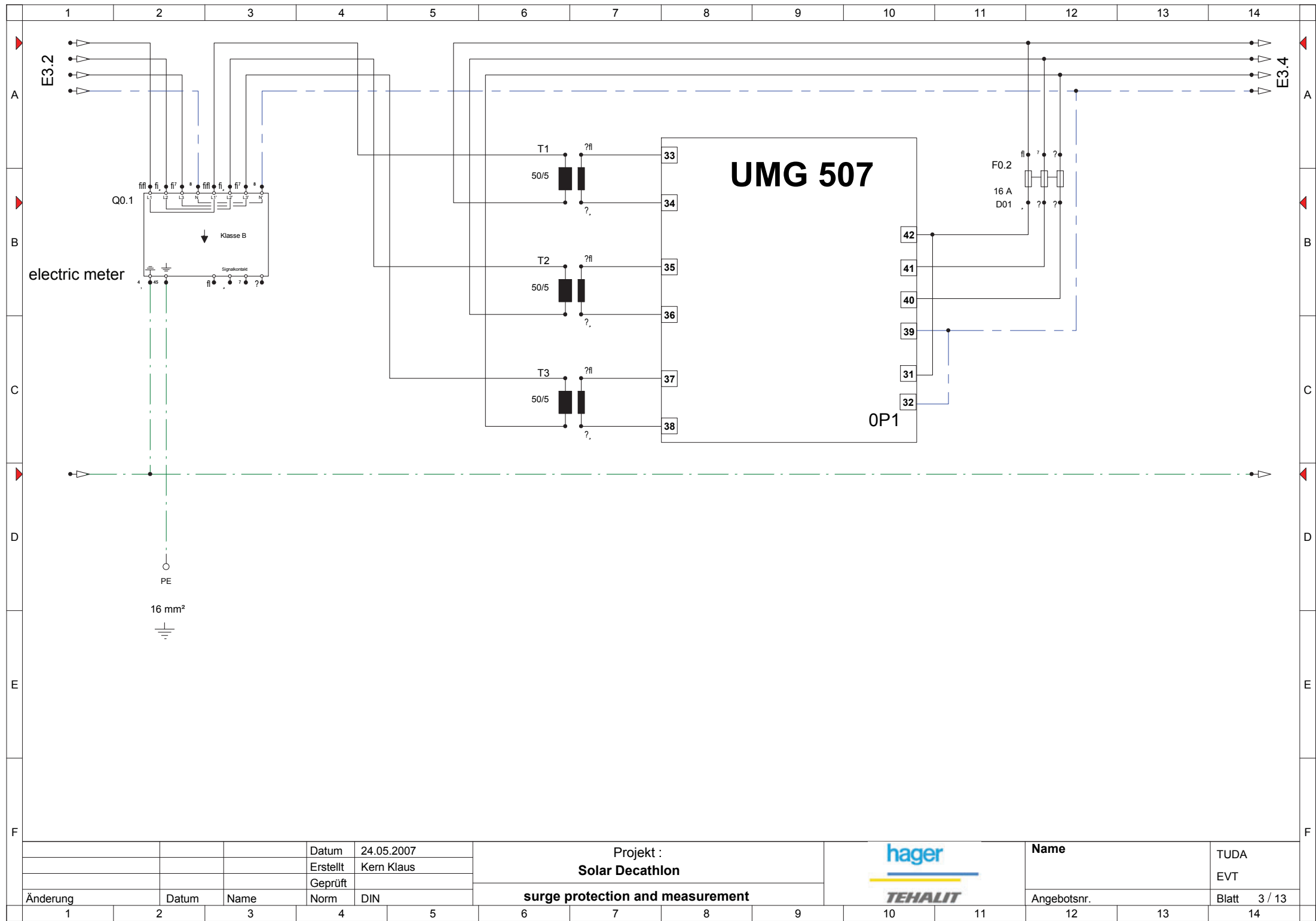
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2	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
2	distribution box	none	
	ac installation		

DRAWING NUMBER  
**E 3.2**  
COMPONENT  
electrical  
installation



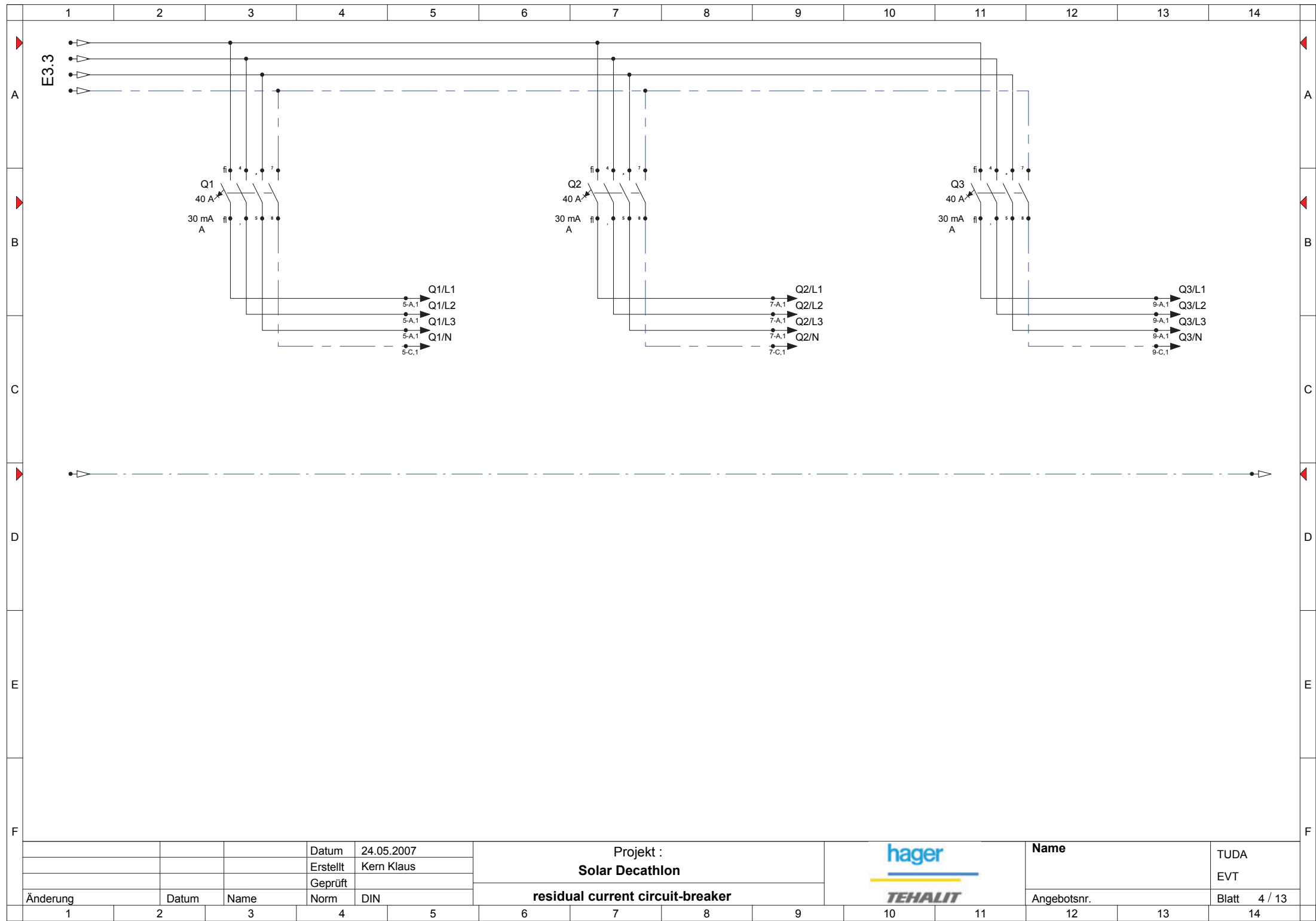
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3	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
3	distribution box	none	
	ac installation		

DRAWING NUMBER  
**E 3.3**  
COMPONENT  
electrical  
installation



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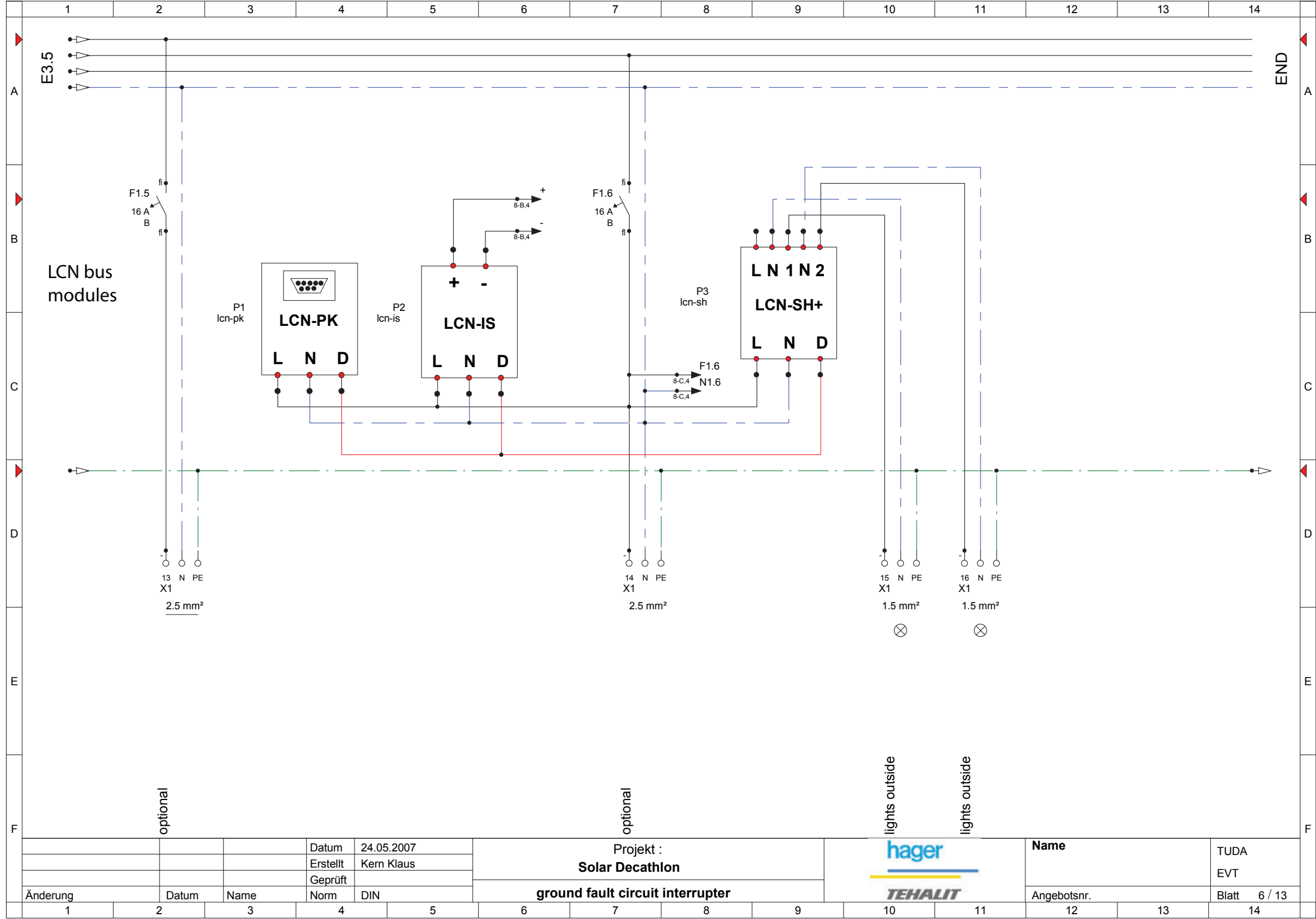
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4	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
4	distribution box	none	
	ac installation		

DRAWING NUMBER  
**E 3.4**  
COMPONENT  
electrical  
installation





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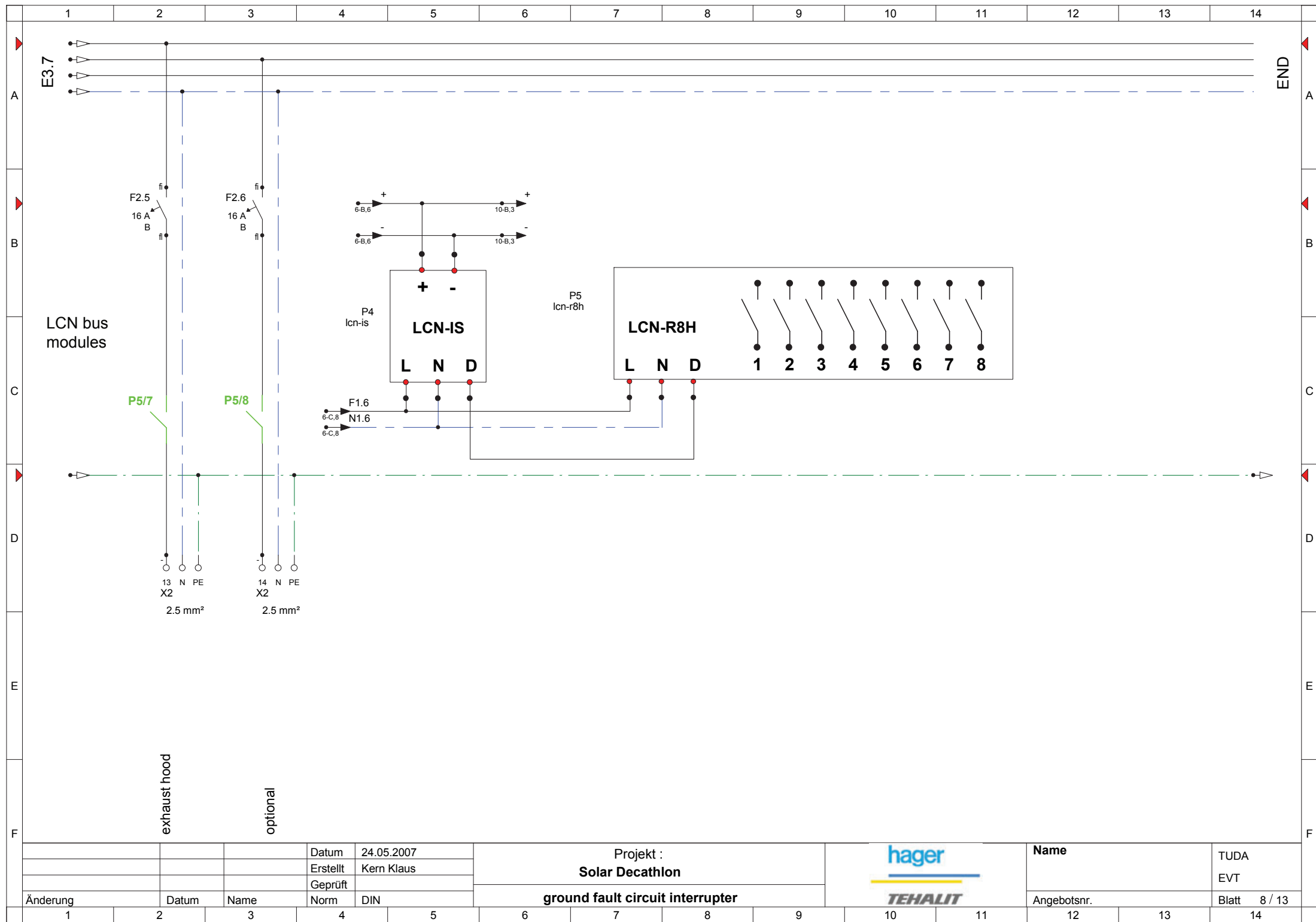
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64287 Darmstadt  
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[fg@ee.tu-darmstadt.de](mailto:fg@ee.tu-darmstadt.de)

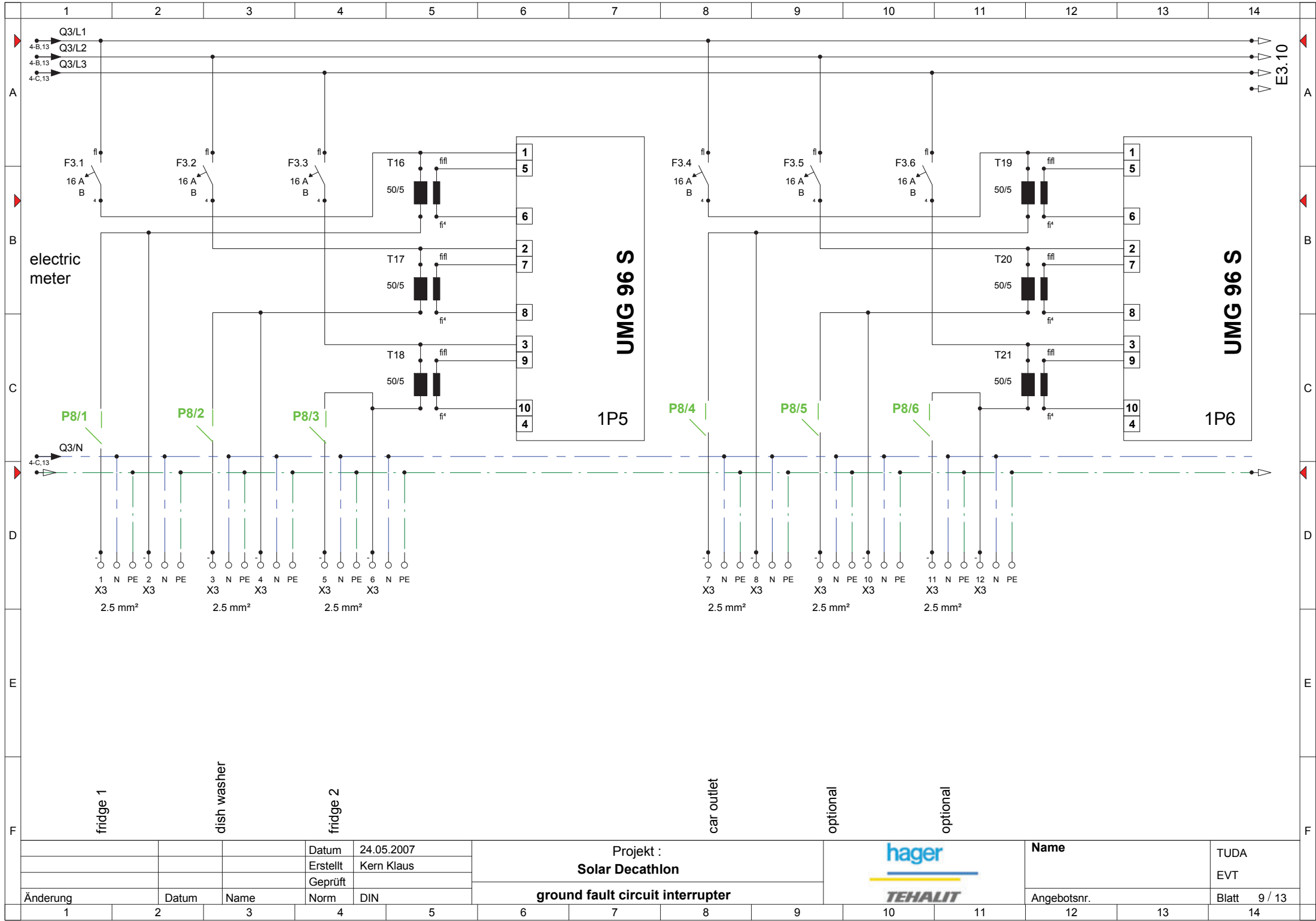
6	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
6	distribution box	none	
	ac installation		

DRAWING NUMBER  
**E 3.6**  
COMPONENT  
**electrical  
installation**









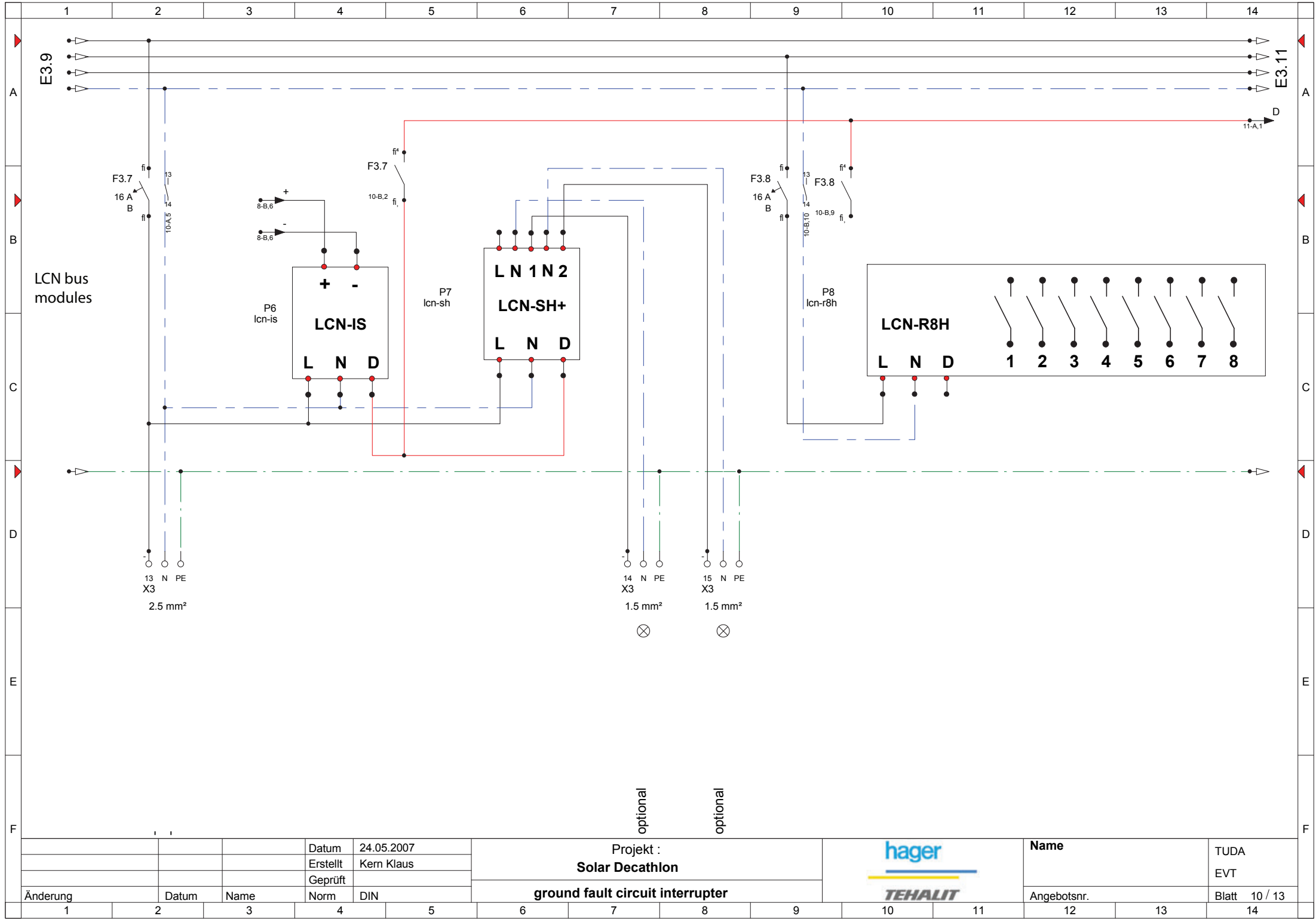
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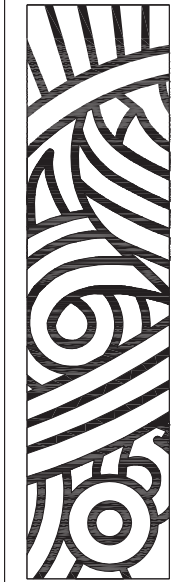
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9	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
9	distribution box	none	
	ac installation		

DRAWING NUMBER  
**E 3.9**  
COMPONENT  
electrical  
installation





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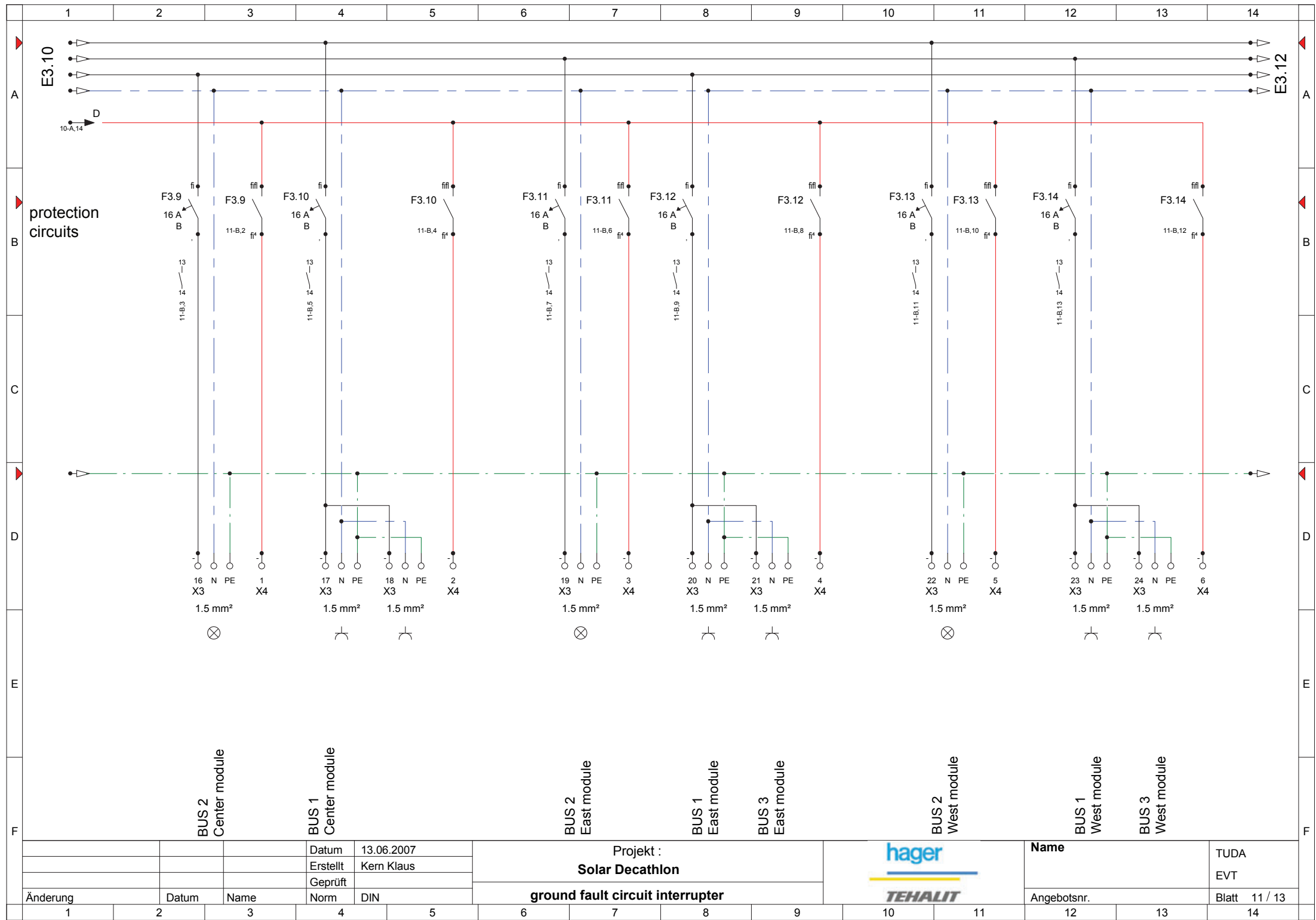
10	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
10	distribution box	none	
	ac installation		

DRAWING NUMBER

E 3.10

COMPONENT

electrical  
installation



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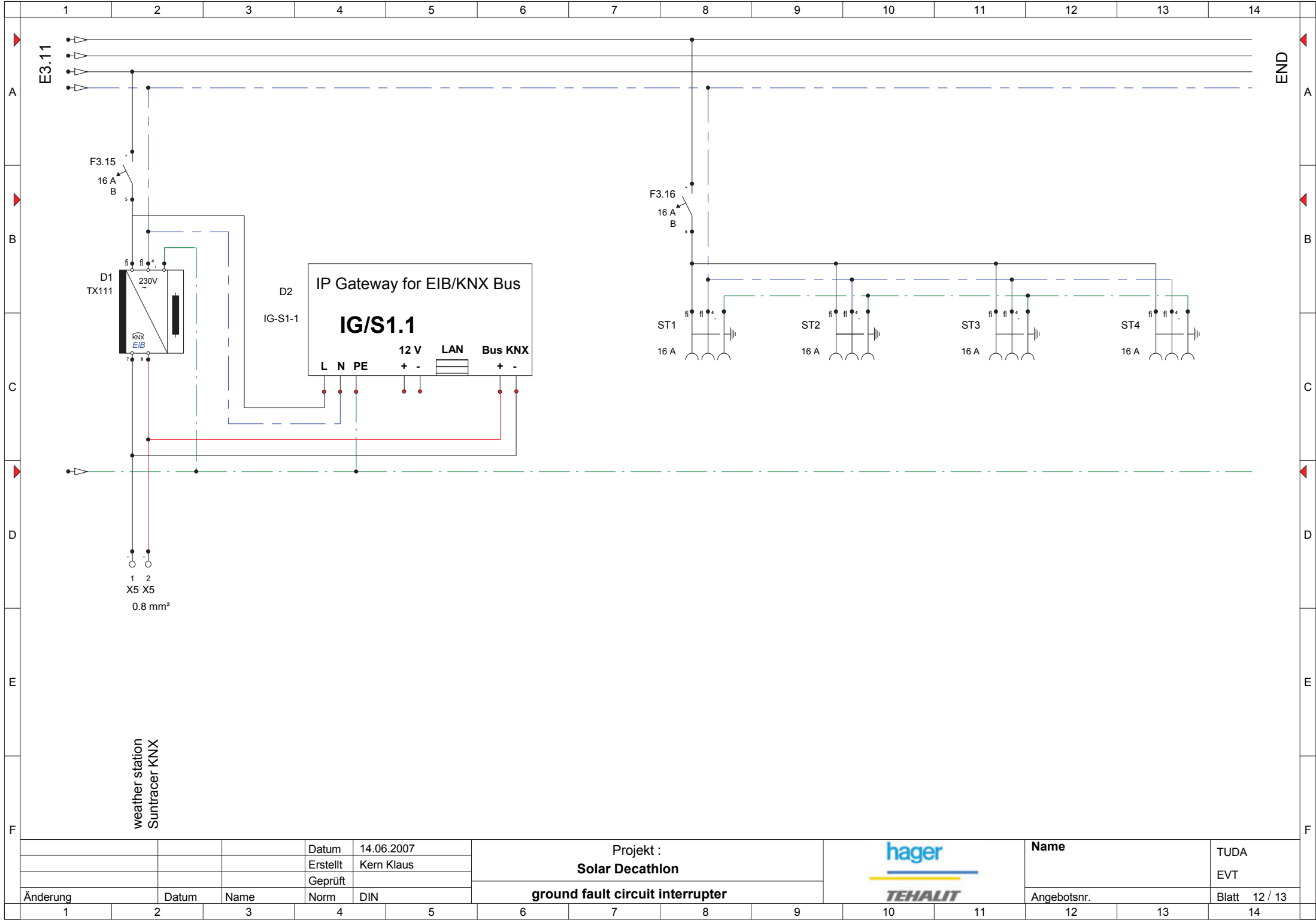
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DRAWING NUMBER

E 3.11

COMPONENT

electrical  
installation

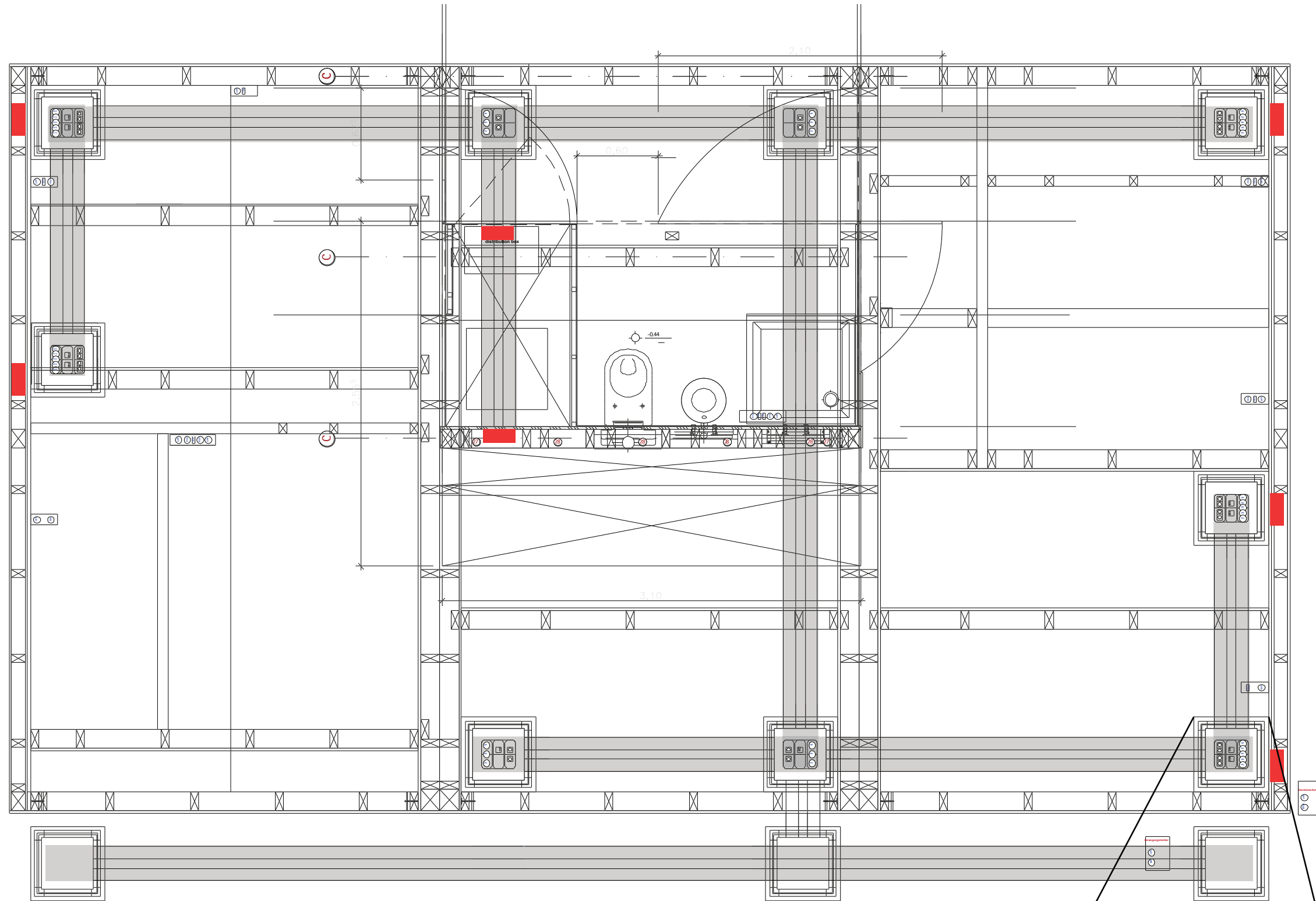


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12	distribution box	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
12	distribution box	none	
	ac installation		



- vertical cable conduit
- horizontal cable conduit

underfloor cable boxes  
includes:  
4 outlets  
4 RJ45 network sockets  
5 LCN bus components inside  
! not in use during the competition !

4 underfloor electrical installation  
E 4.0

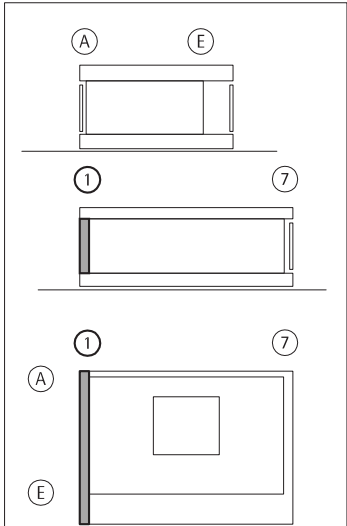
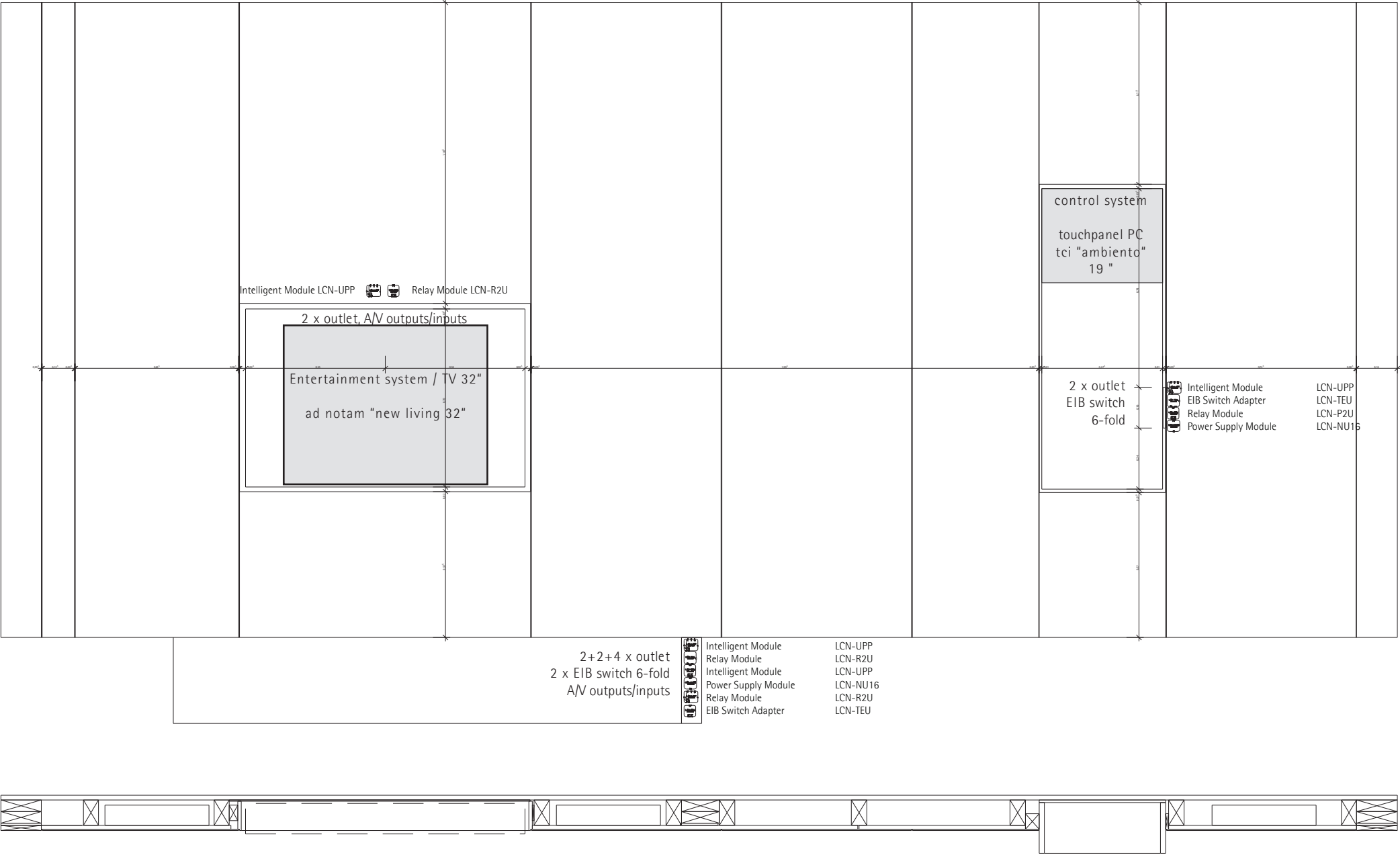


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0	underfloor installation	030807	toko
INDEX	DESCRIPTION	DATE	NAME
0	underfloor installation		none
INDEX	DESCRIPTION		SCALE

DRAWING NUMBER  
**E 4.0**  
COMPONENT  
electrical  
installation





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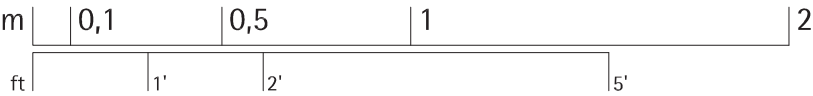
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INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	electrical installation	1:20	
	scheme - west wall		

DRAWING NUMBER

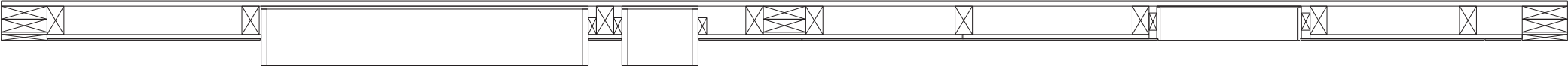
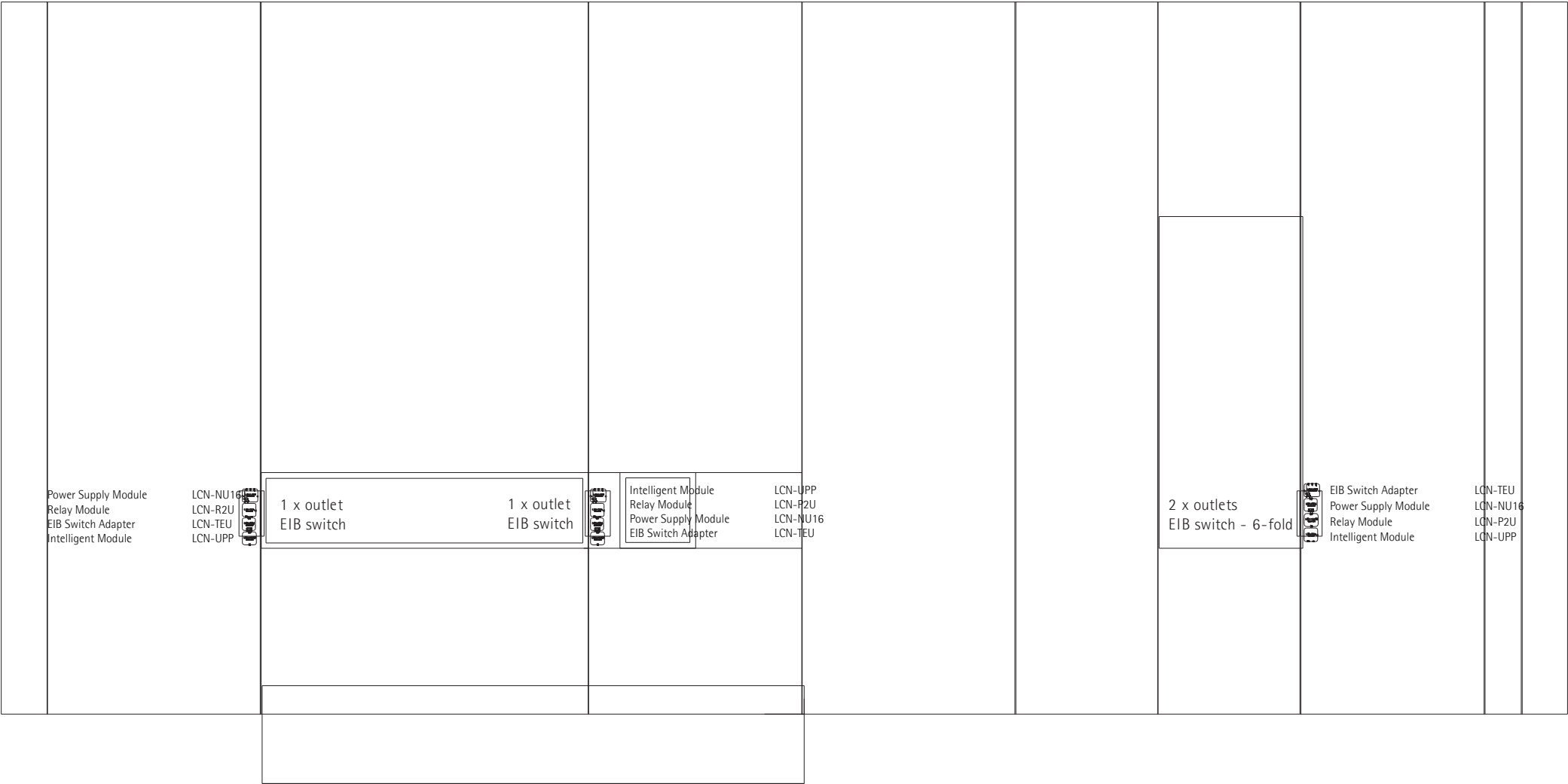
E 4.1

COMPONENT

electrical  
installation







A

E

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E



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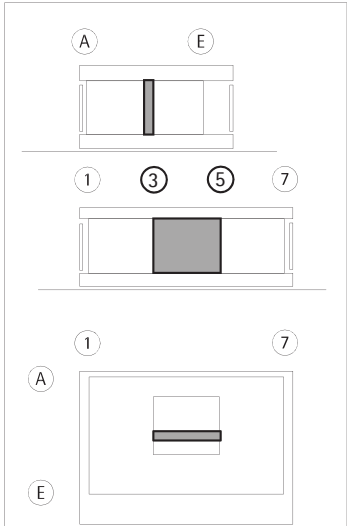
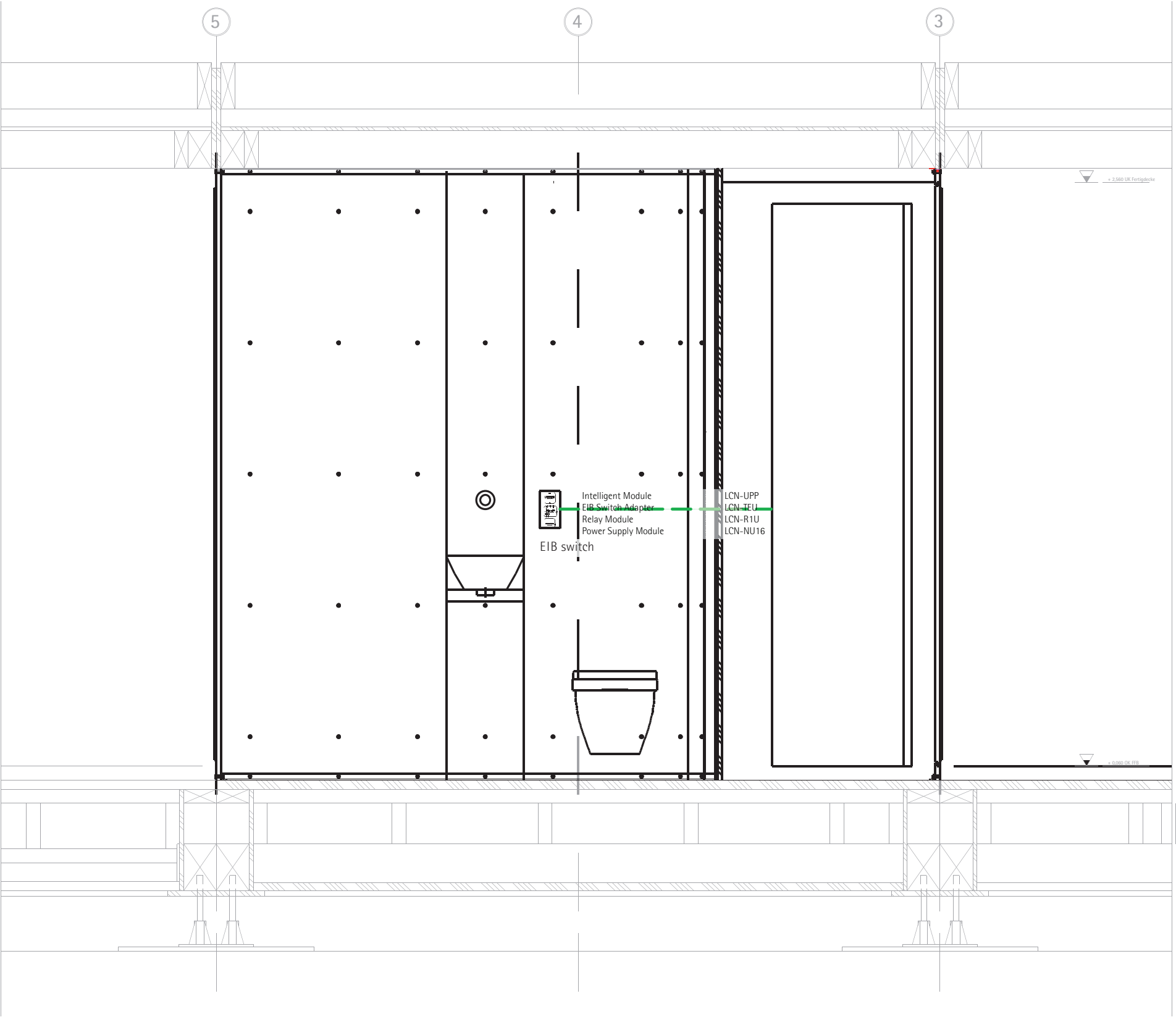
1	electrical installation	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	electrical installation	1:20	
	scheme - east wall		

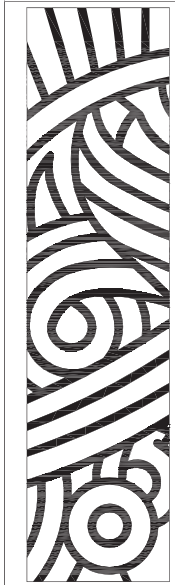
DRAWING NUMBER

E 4.2

COMPONENT

electrical  
installation





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INDEX	DESCRIPTION	DATE	NAME
1	electrical installation	030807	toko

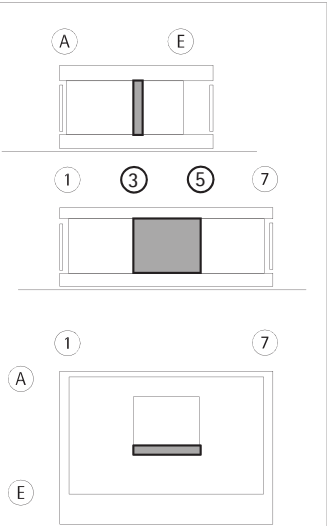
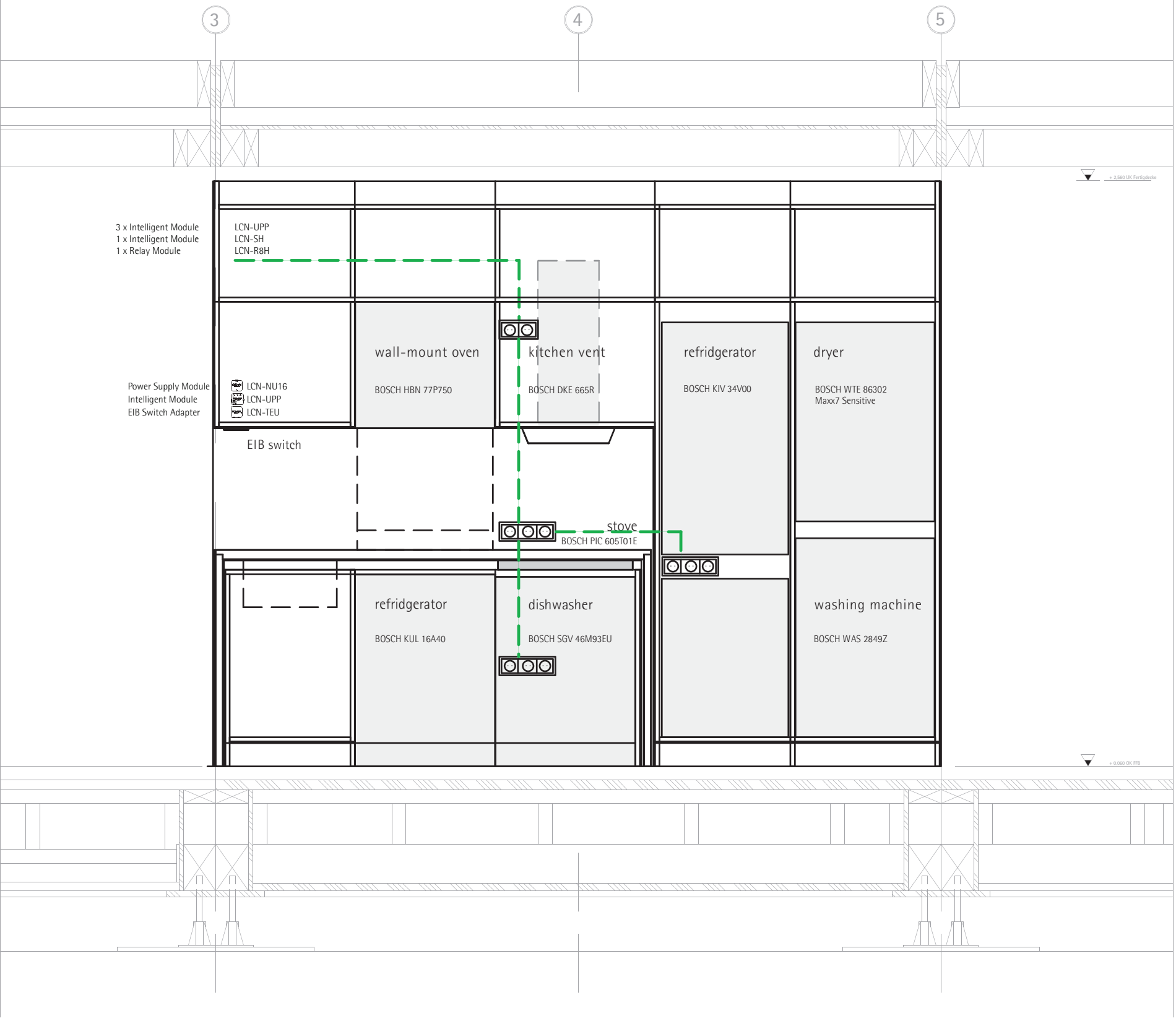
INDEX	DESCRIPTION	SCALE
1	electrical installation	1:20
	scheme - bathroom	

DRAWING NUMBER

E 4.3

COMPONENT

electrical  
installation





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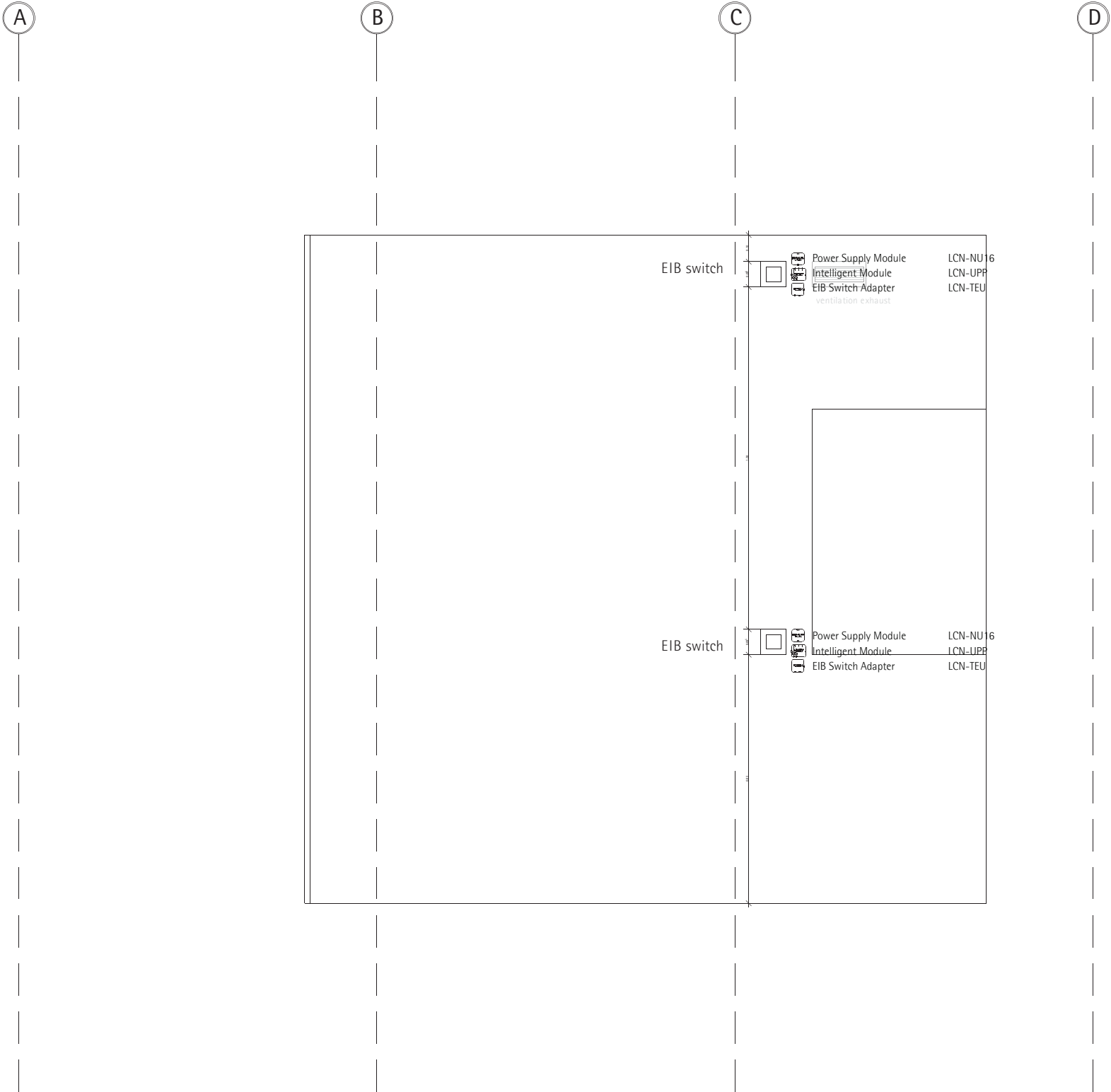
INDEX	DESCRIPTION	DATE	NAME
1	electrical installation	030807	toko
1	electrical installation	1:20	
	scheme - kitchen		

DRAWING NUMBER

E 4.4

COMPONENT

electrical  
installation



A

E

1

3

7

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7

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E

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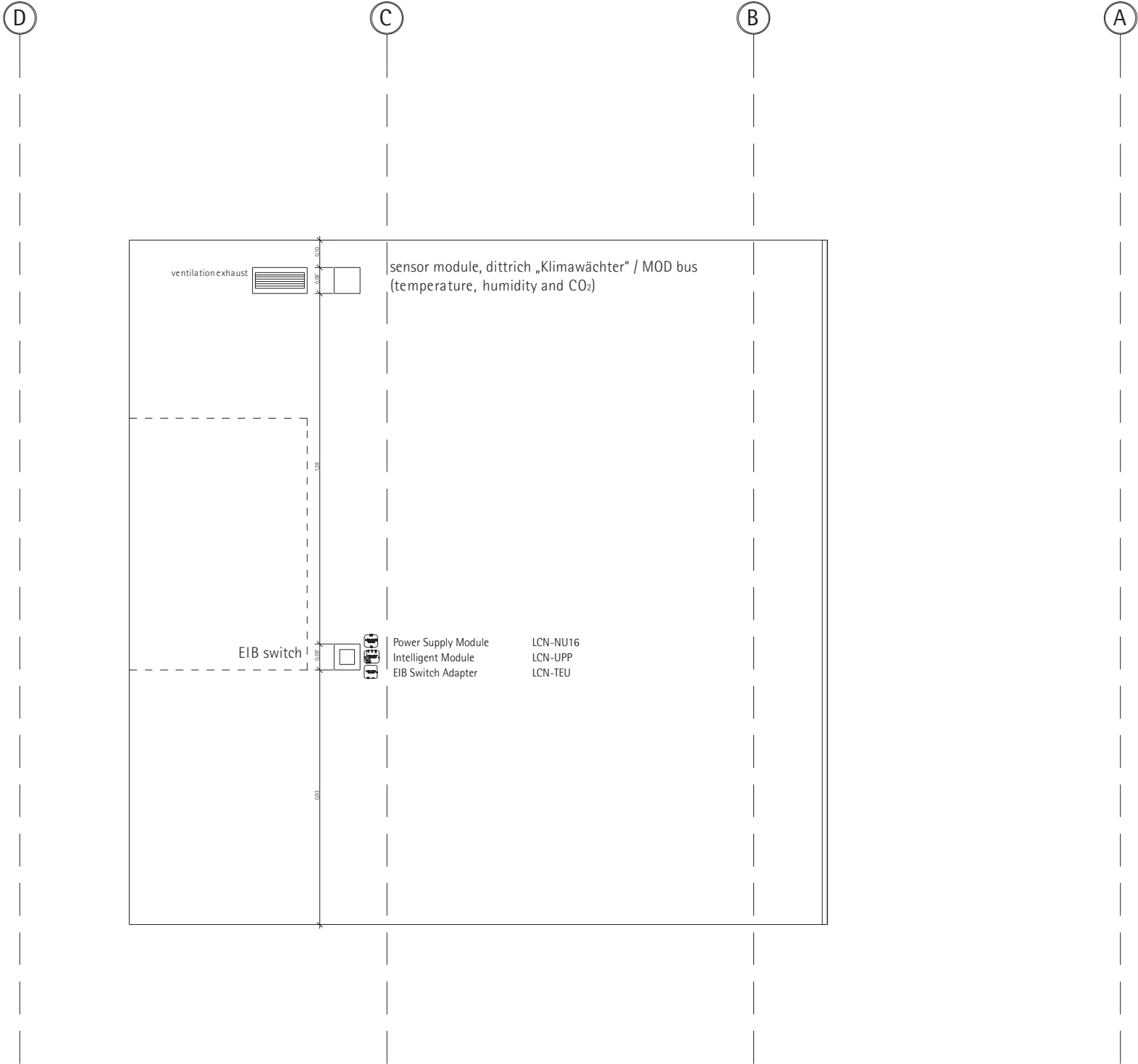
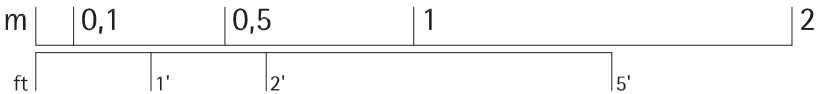
1	electrical installation	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	electrical installation	1:20	
	scheme - core west		

DRAWING NUMBER

E 4.5

COMPONENT

electrical  
installation





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1	electrical installation	030807	toko
INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	electrical installation	1:20	
	scheme - core east		

DRAWING NUMBER

E 4.6

COMPONENT

electrical  
installation

Early Morning

- Crane setup (shared with CMU.)
- Bring in the first 40' sea-container containing tools, Solar Louvers and PV-system.
- Leveling the steel-plates on the mall.

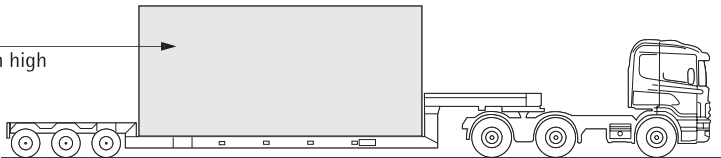
During Day

- Set up the three house modules on the plates.
- Set up the three porch modules.
- Remove the first container and bring in the second (20').

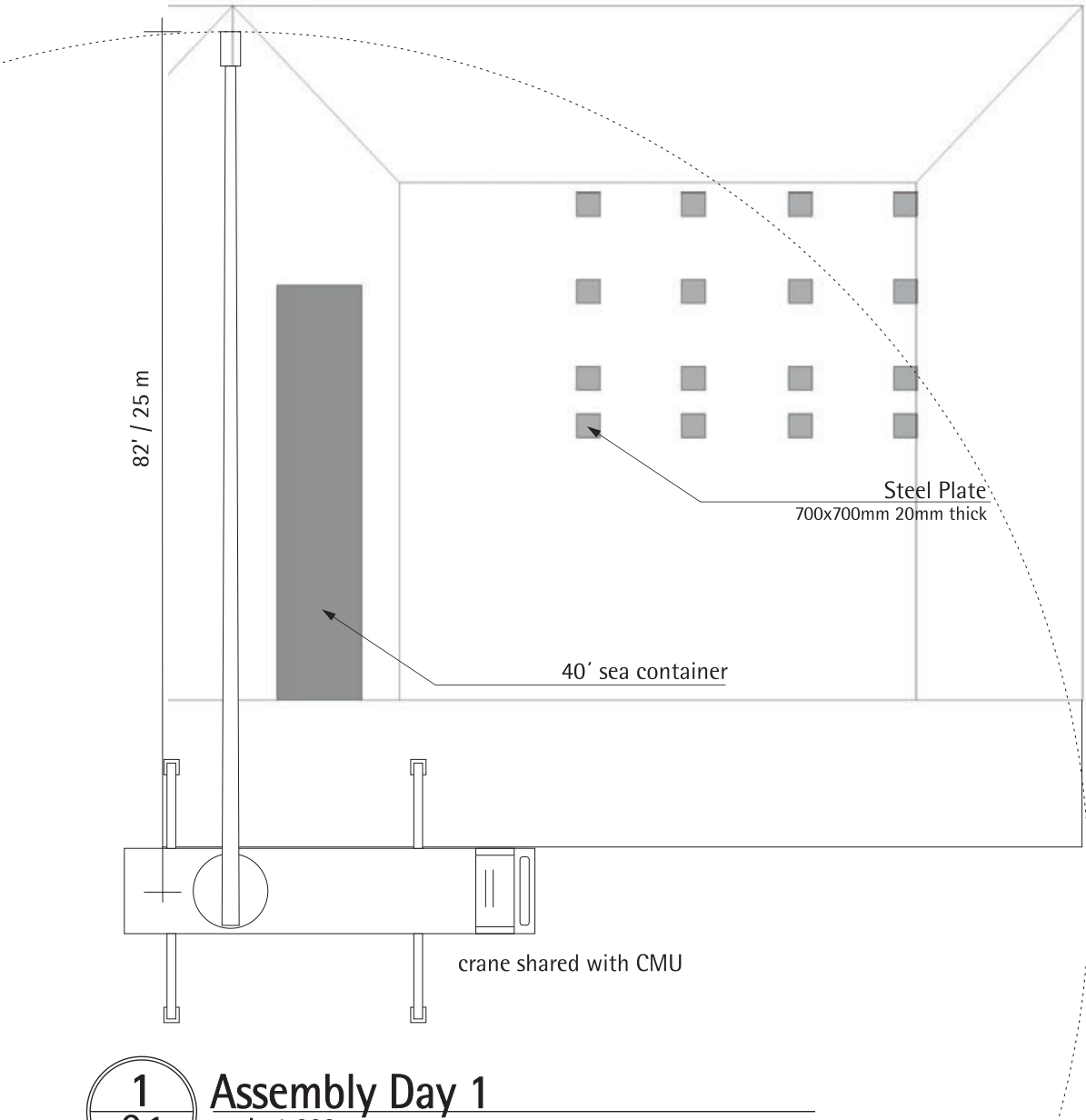
At night

- Remove secondsea-container.
- Remove crane.

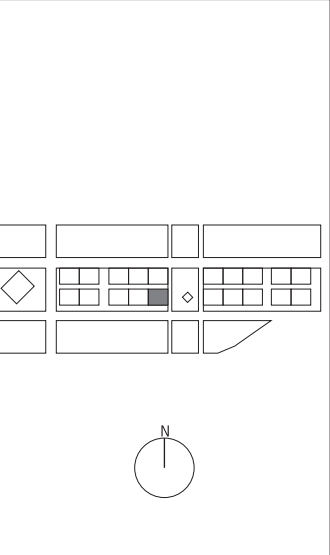
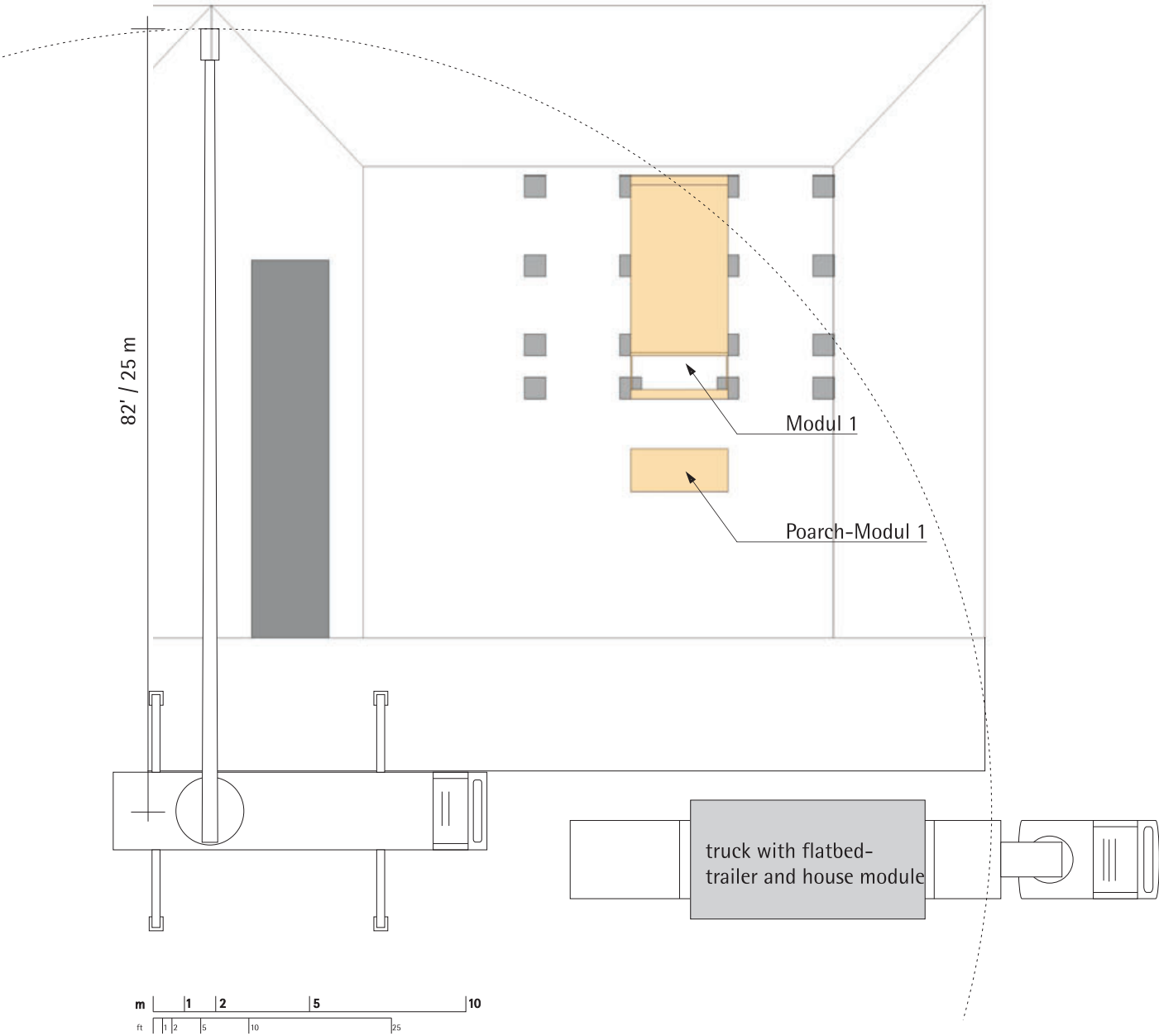
3 house modules  
each 7,5m long 3,7m wide 3,8m high



Site-Plan Wednesday, October 3rd 7:00 AM



Site-Plan Wednesday, October 3rd 10:00 AM



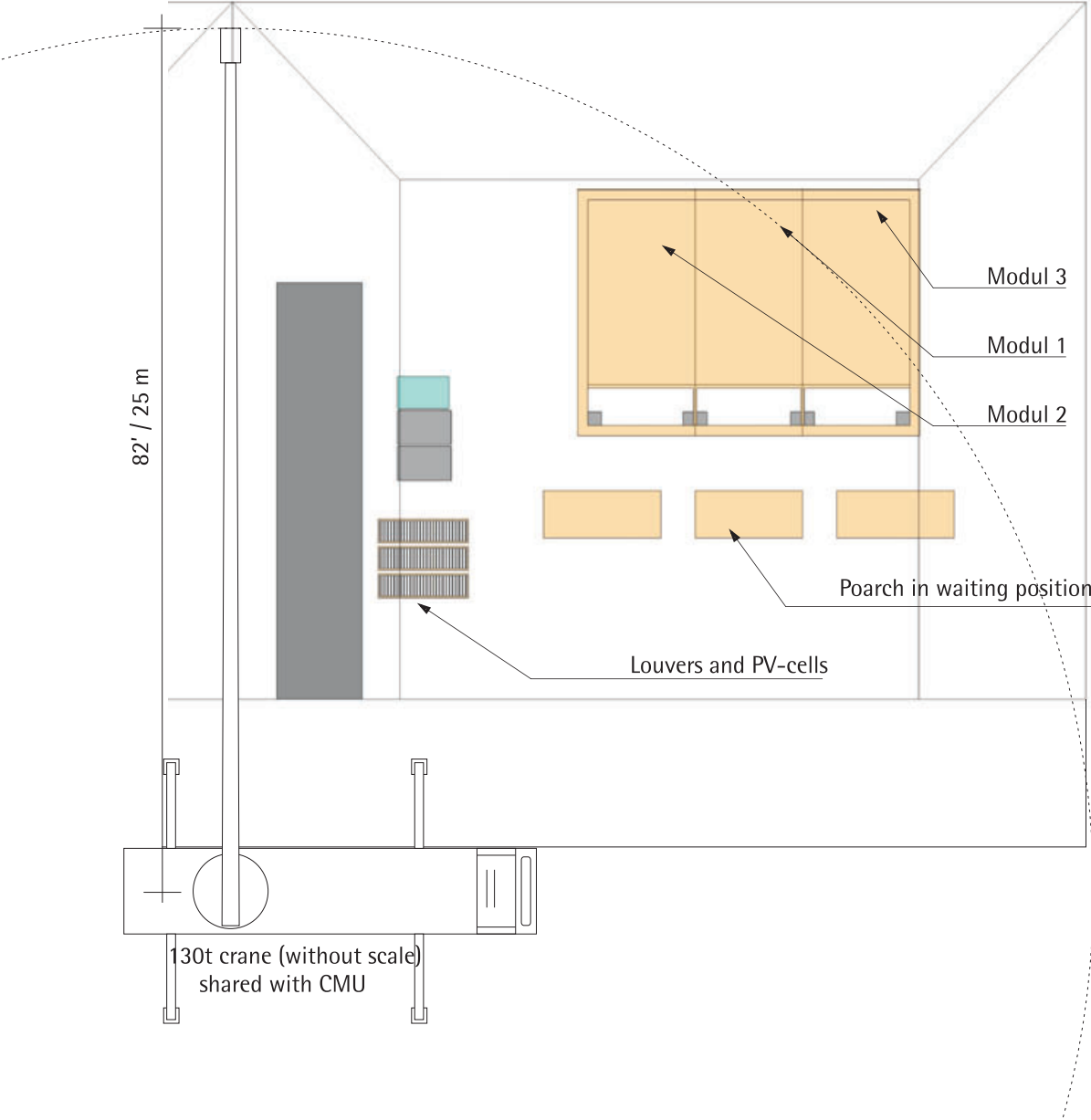
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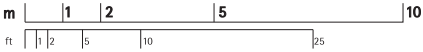
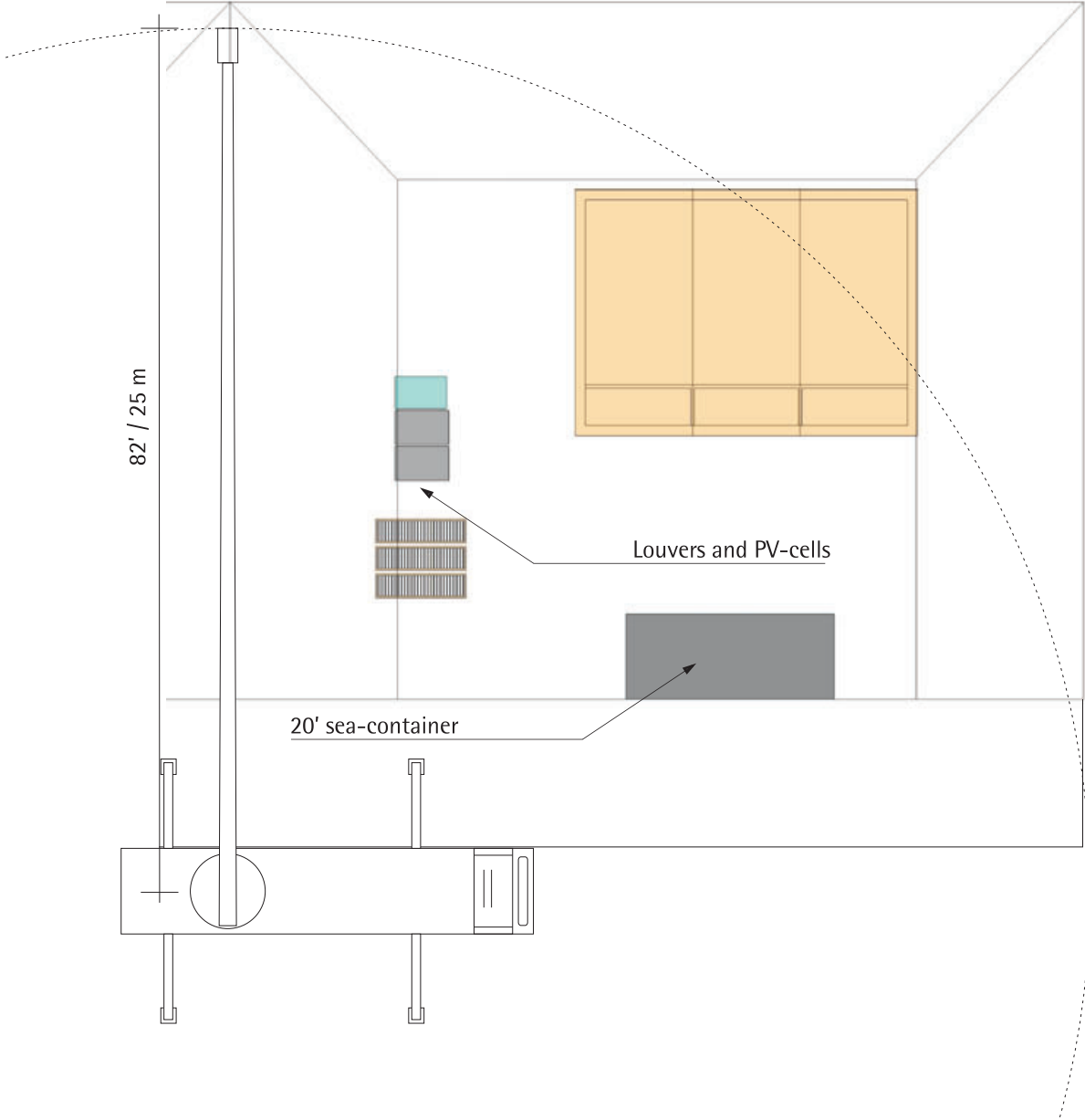
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INDEX	DESCRIPTION	DATE	NAME
3	Issued for Deliverables	07/08/07	CSP
2	Assambly Deliverables	05/06/07	CSP
1	Issued for Deliverables	03/02/07	CSP

Site-Plan Wednesday, October 3rd 2:00 PM



Site-Plan Wednesday, October 3rd 6:00 PM

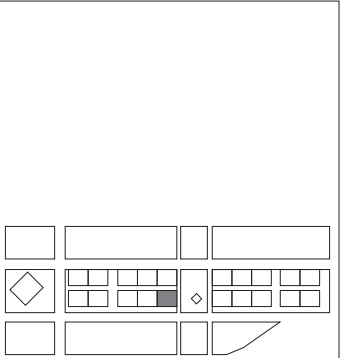


1

0.2

Assembly Day 1

scale 1:200



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3	Issued for Deliverables	07/08/07	CSP	
2	Assambly Deliverables	05/06/07	CSP	
1	Issued for Deliverables	03/02/07	CSP	
INDEX	DESCRIPTION	DATE	NAME	
INDEX	DESCRIPTION	SCALE		
1	Assembly Day 1	1:200		

DRAWING NUMBER

0.2

COMPONENT

Site Operations

Day 19

- Uninstall PV-cells and louvers
- Disassembly of deck together with CMU

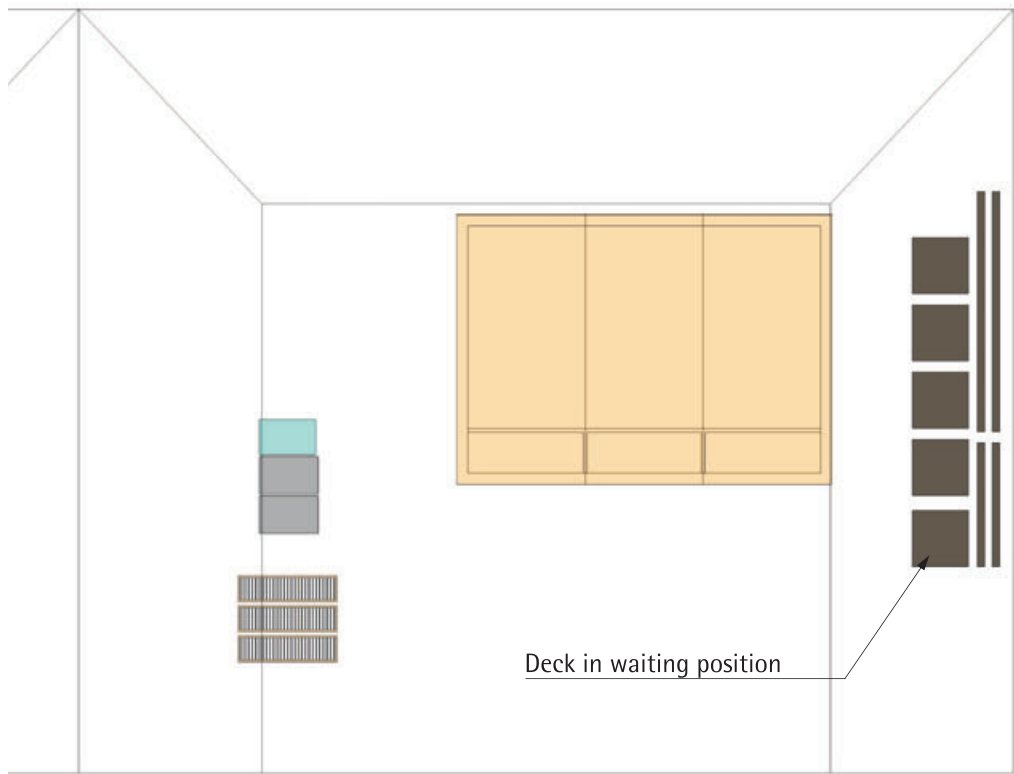
Day 22

- Set up crane.
- Bring in 40'sea container.
- Remove deck.
- Remove three house modules
- Load and remove 40'sea container
- Bring in 20' sea container
- Load and remove 20' sea container
- Goodbye!

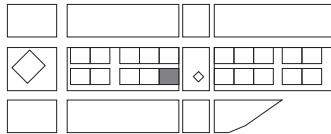
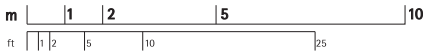
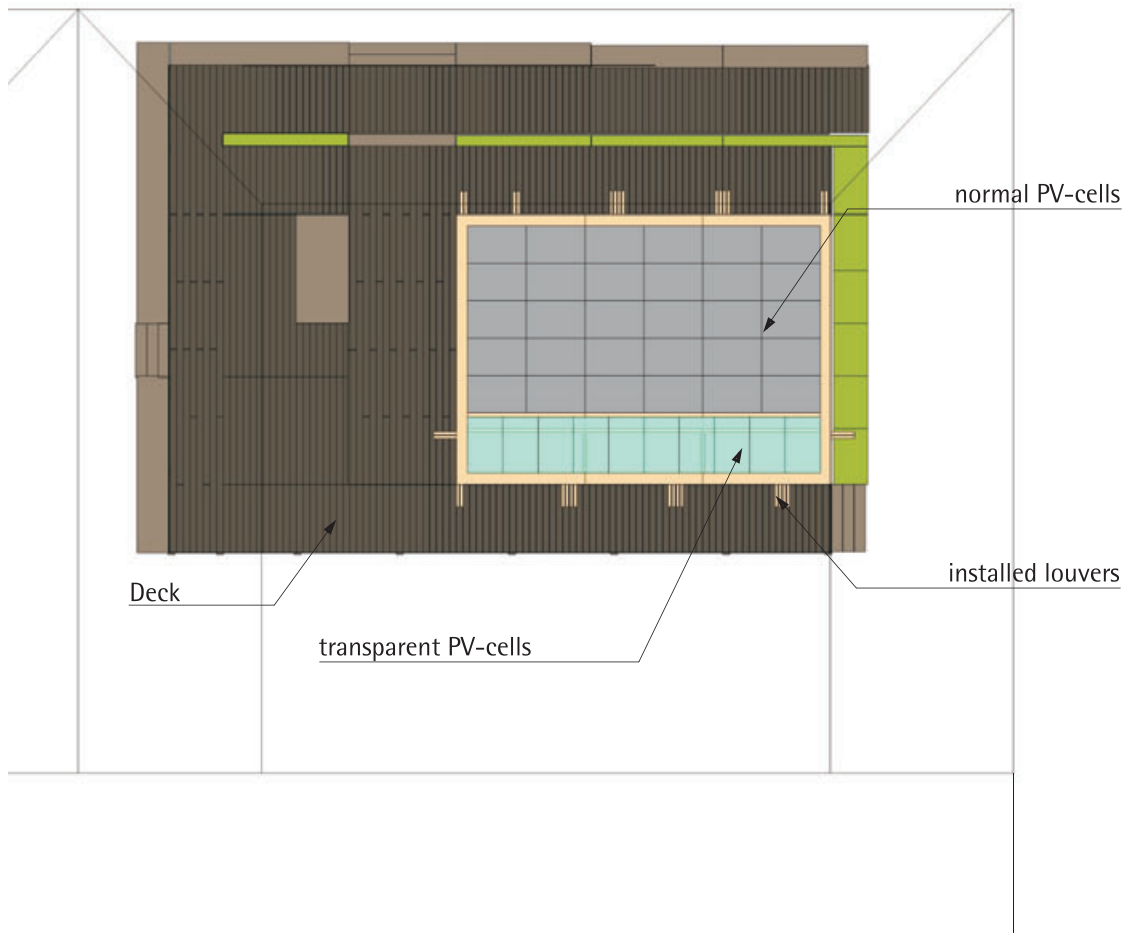
The whole Day

- Assembly of the deck
- Start assembly of PV-System and louvers
- The following days we will continue this work

Site-Plan Wednesday, October 3rd midnight



Site-Plan Friday, October 9th Work finished



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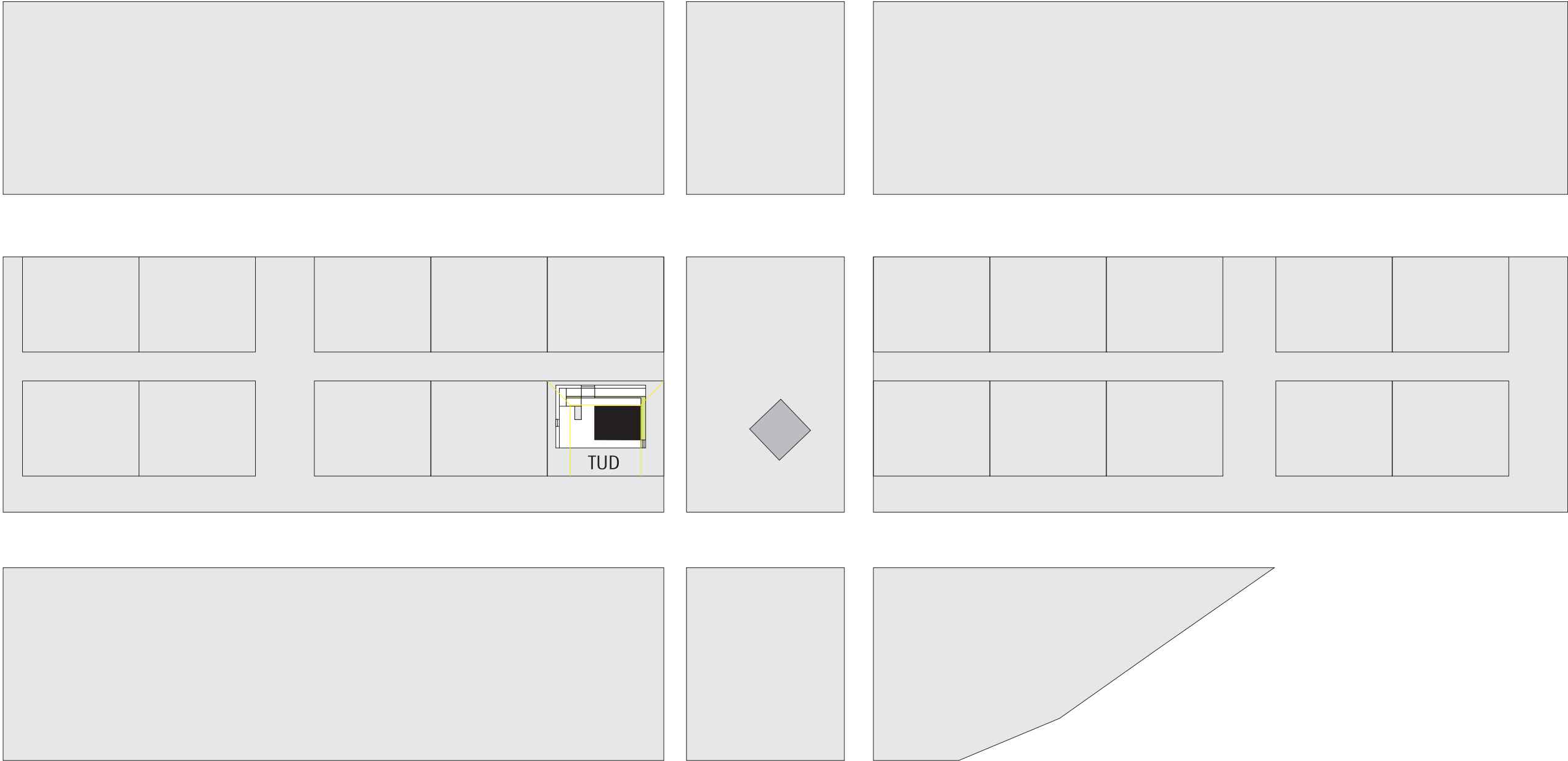
Team Solar Decathlon 2007  
Fachgebiet Entwerfen und Energieeffizientes Bauen  
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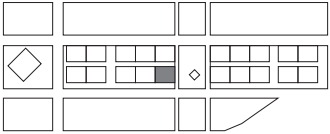
INDEX	DESCRIPTION	DATE	NAME
3	Issued for Deliverables	07/08/07	CSP
2	Assambly Deliverables	05/06/07	CSP
1	Issued for Deliverables	03/02/07	CSP

DRAWING NUMBER	SCALE
0.3	1:200
COMPONENT	
Site Operations	





**1**  
0.4  
**Site Plan**  
scale 1:1000



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INDEX	DESCRIPTION	DATE	NAME
INDEX	DESCRIPTION	SCALE	
1	Site Plan	1:1000	

DRAWING NUMBER

**0.4**

COMPONENT

**Site Operations**