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Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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03	2017-08-10	DELIVERABLE 08
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: COTTURE scale: NO

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Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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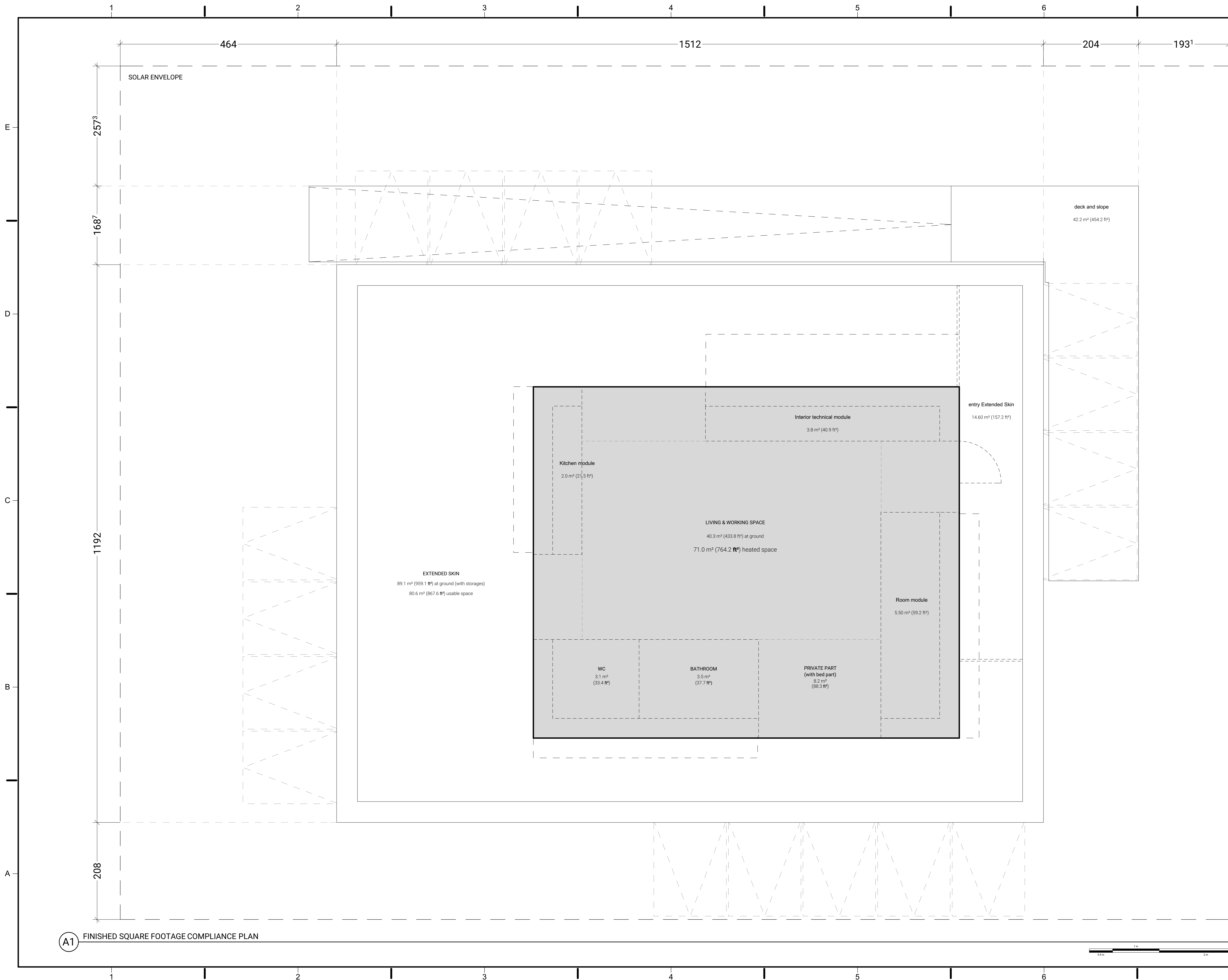
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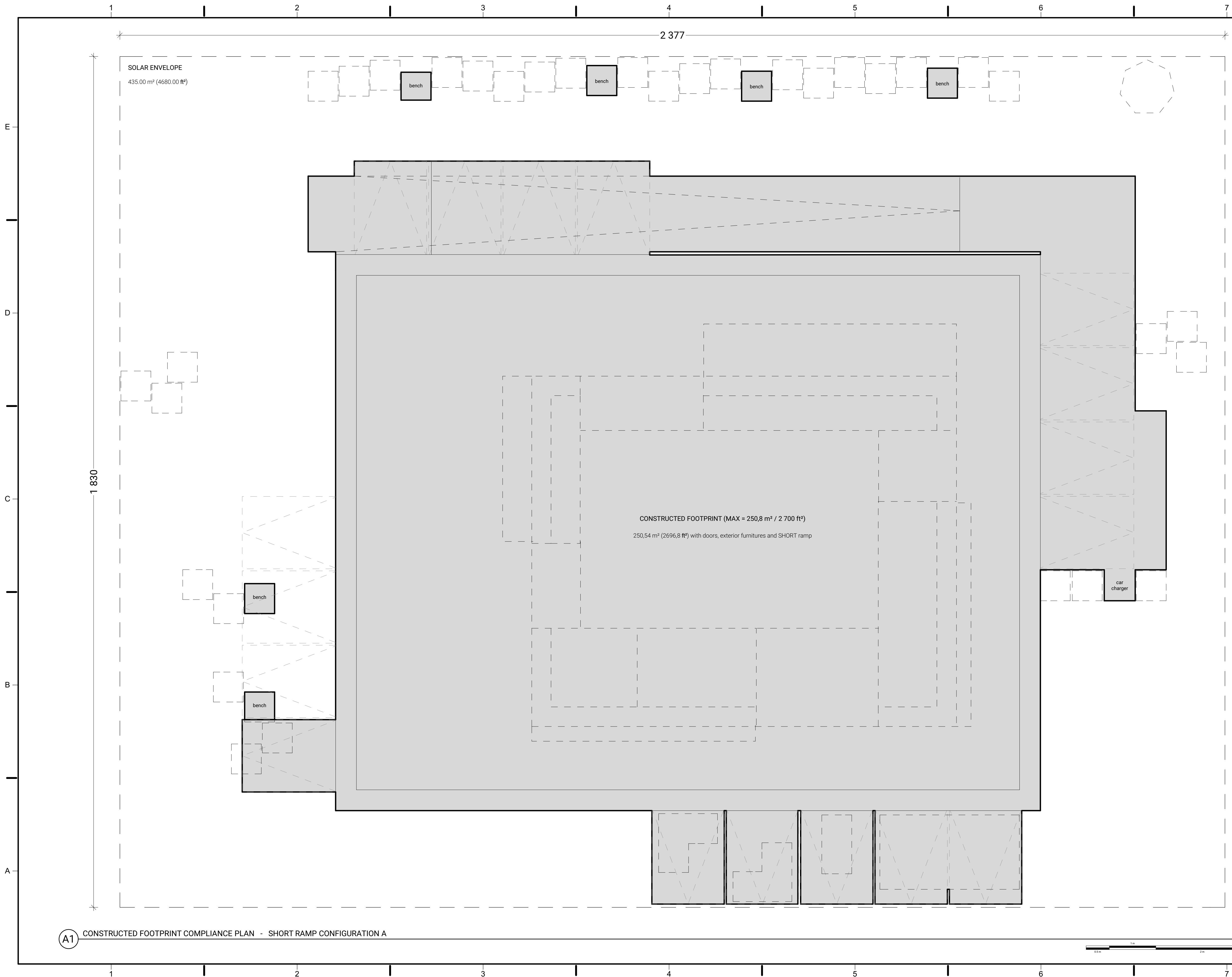
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FINISHED SQUARE FOOTAGE COMPLIANCE PLAN

G-101



(A1) FINISHED SQUARE FOOTAGE COMPLIANCE PLAN



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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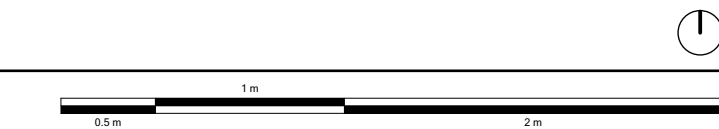
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CONSTRUCTED FOOTPRINT COMPLIANCE PLAN

G-102

(A1) CONSTRUCTED FOOTPRINT COMPLIANCE PLAN - SHORT RAMP CONFIGURATION A



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TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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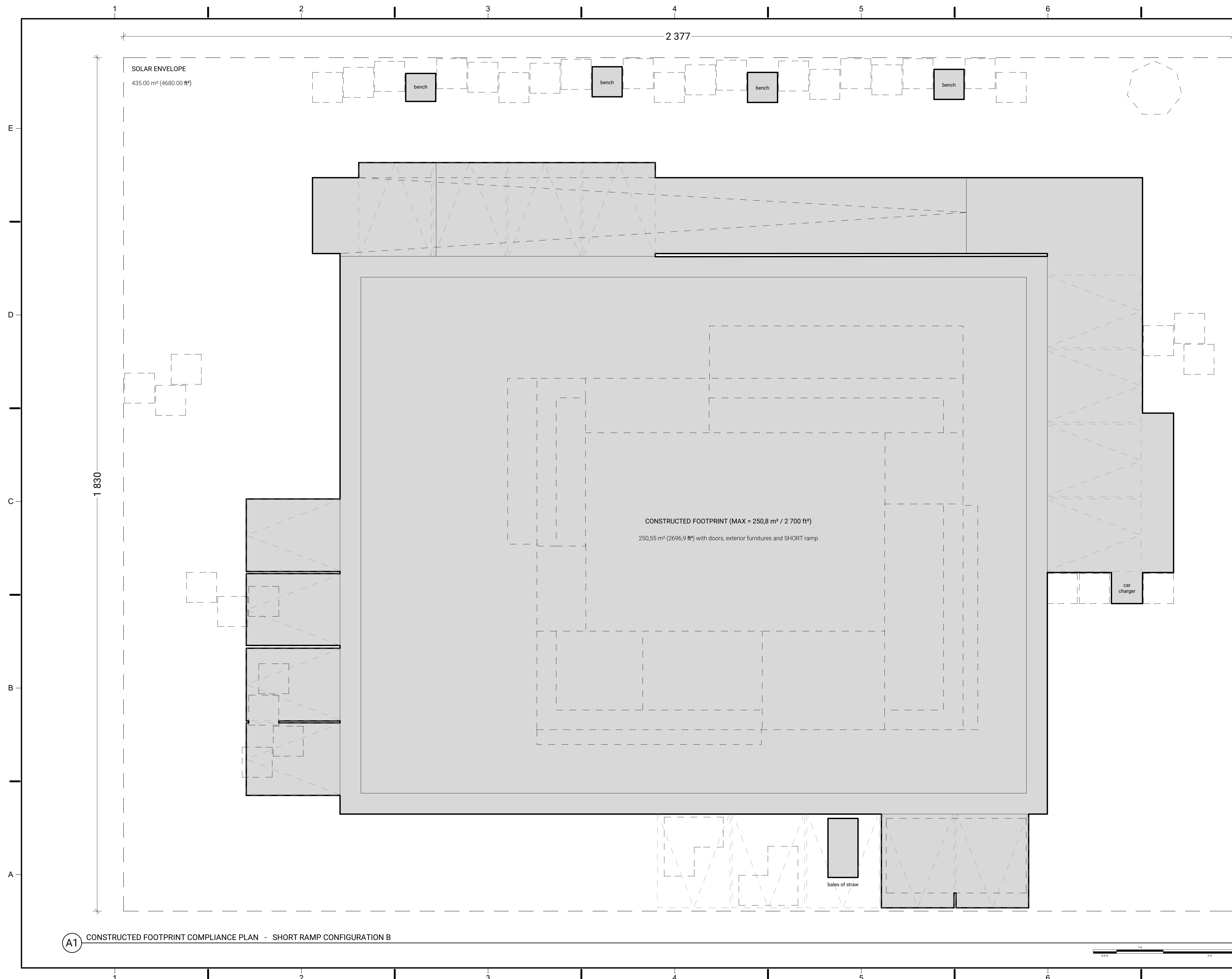
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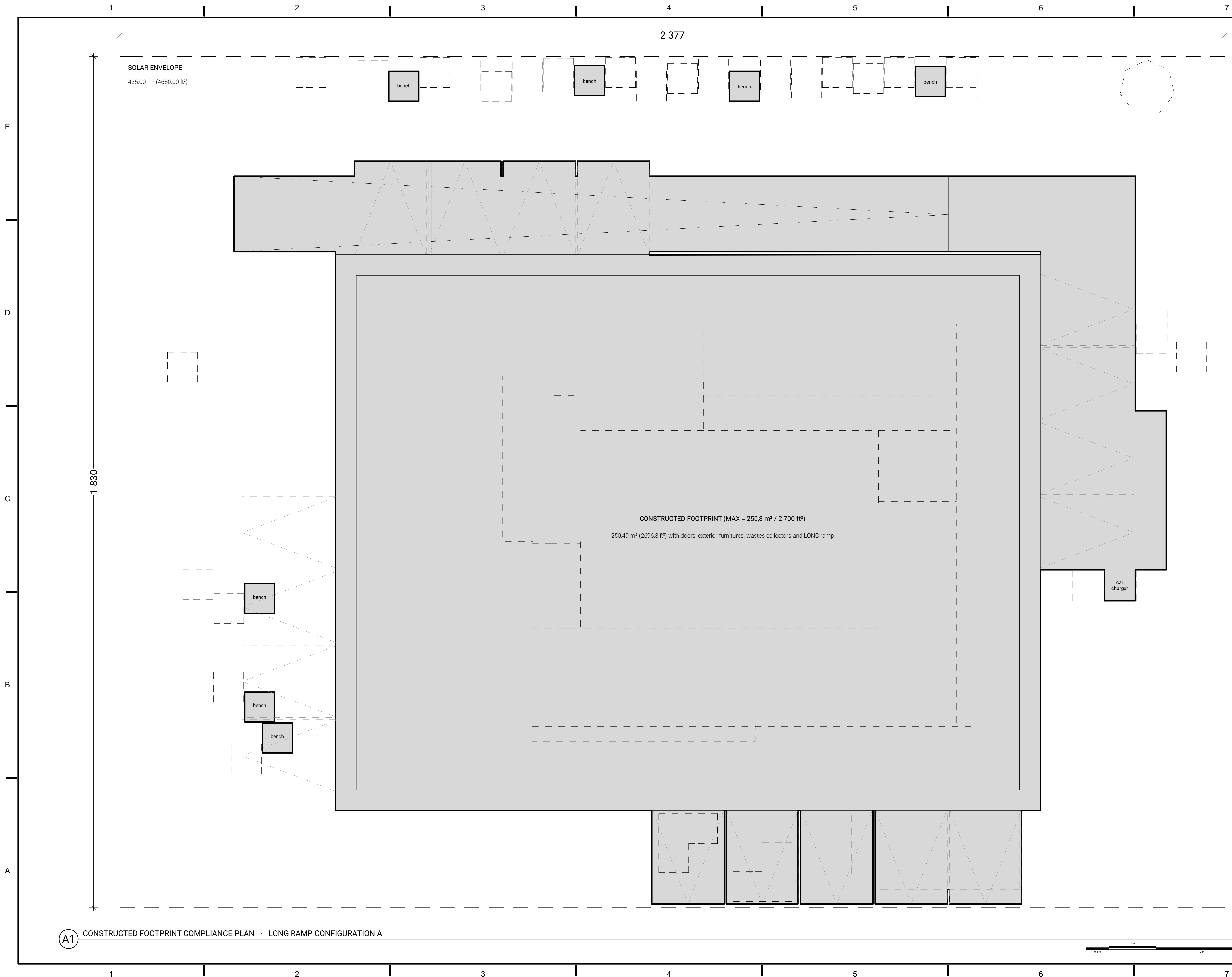
CONSTRUCTED FOOTPRINT COMPLIANCE PLAN

G-103



(A1) CONSTRUCTED FOOTPRINT COMPLIANCE PLAN - SHORT RAMP CONFIGURATION B





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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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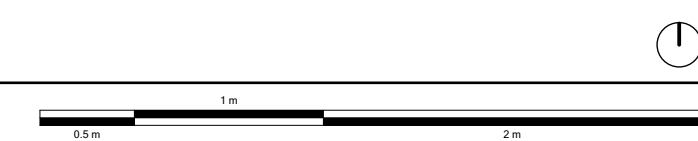
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Plans are drawn with metric system (cm)

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CONSTRUCTED FOOTPRINT COMPLIANCE PLAN

G-104



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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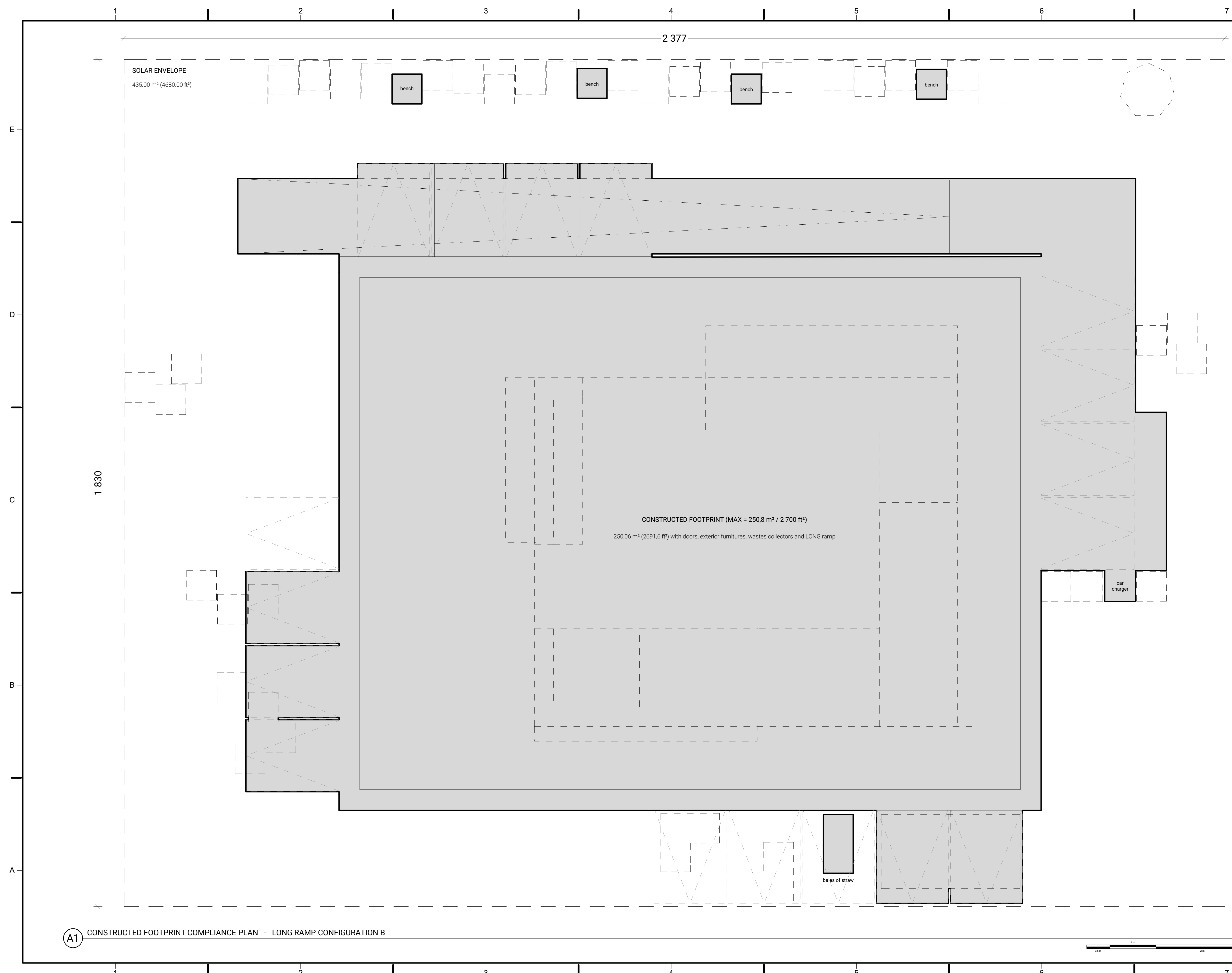
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Plans are drawn with metric system (cm)

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CONSTRUCTED FOOTPRINT COMPLIANCE PLAN

G-105



(A1) CONSTRUCTED FOOTPRINT COMPLIANCE PLAN - LONG RAMP CONFIGURATION B



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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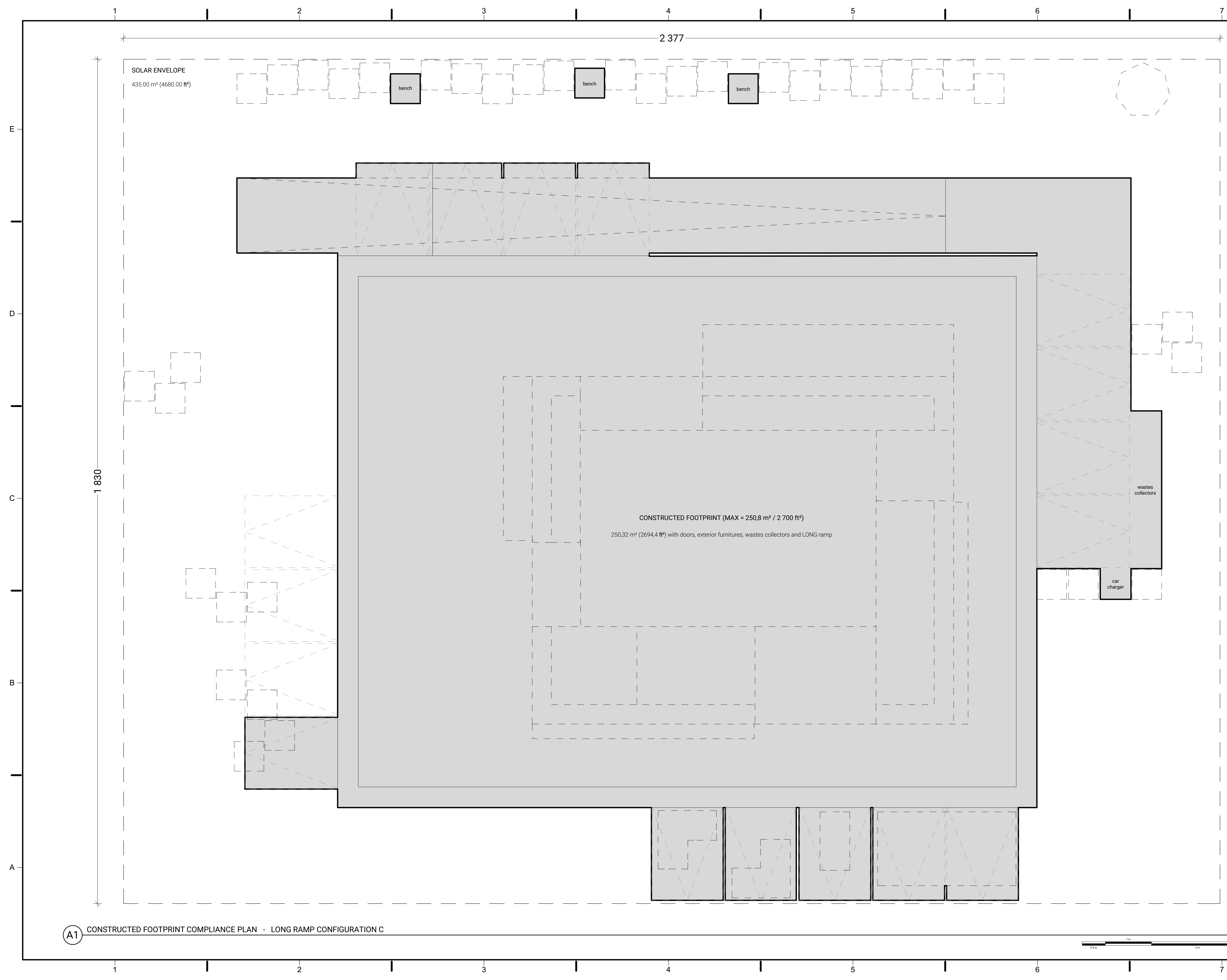
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Plans are drawn with metric system (cm)

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CONSTRUCTED FOOTPRINT COMPLIANCE PLAN

G-106



(A1) CONSTRUCTED FOOTPRINT COMPLIANCE PLAN - LONG RAMP CONFIGURATION C



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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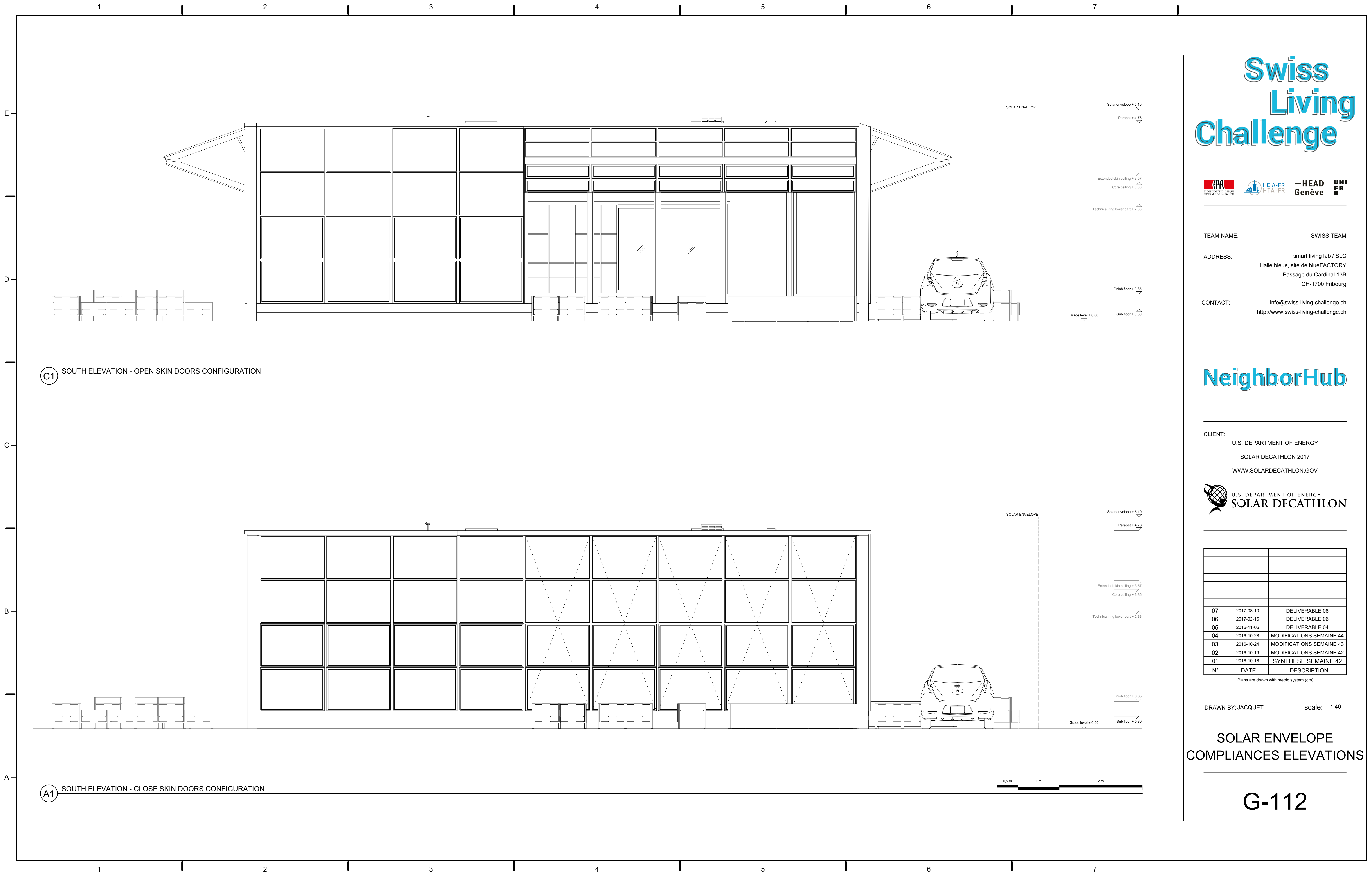
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03	2016-10-24	MODIFICATIONS SEMAINE 43
02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

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SOLAR ENVELOPE COMPLIANCES ELEVATIONS

G-112



Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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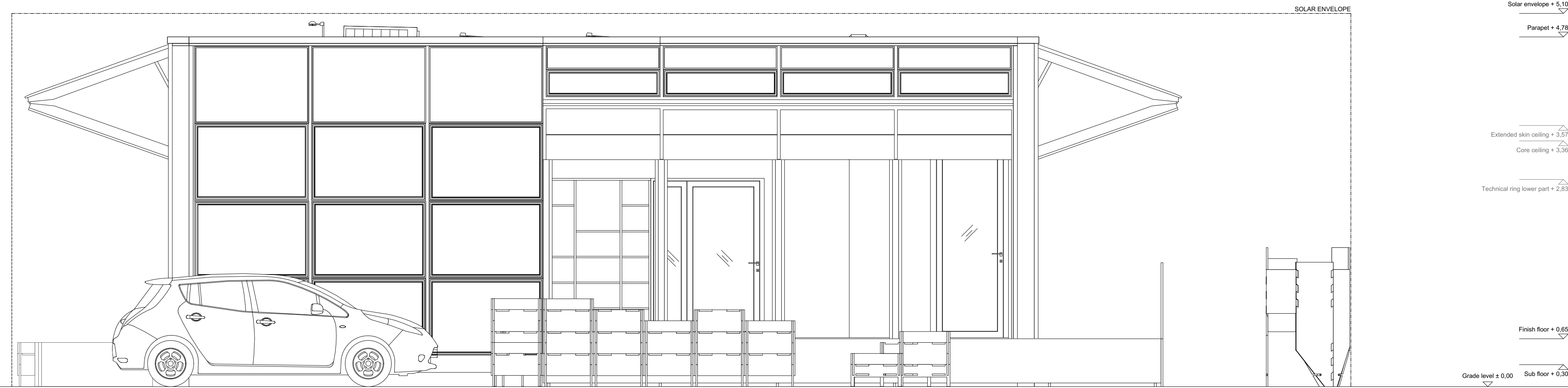
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Plans are drawn with metric system (cm)

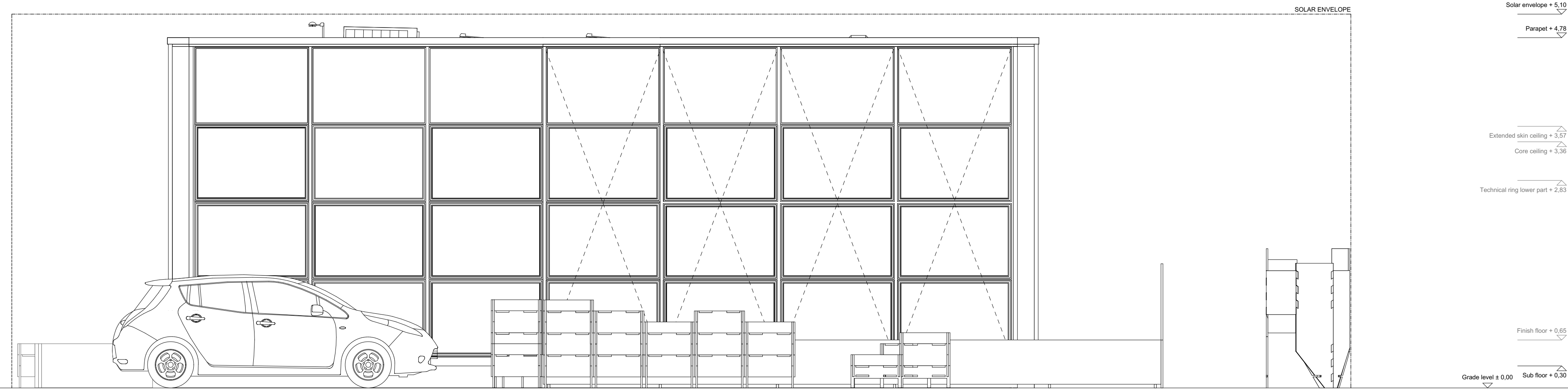
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SOLAR ENVELOPE COMPLIANCES ELEVATIONS

G-113



C1 EAST ELEVATION - OPEN SKIN DOORS CONFIGURATION



A1 EAST ELEVATION - CLOSE SKIN DOORS CONFIGURATION



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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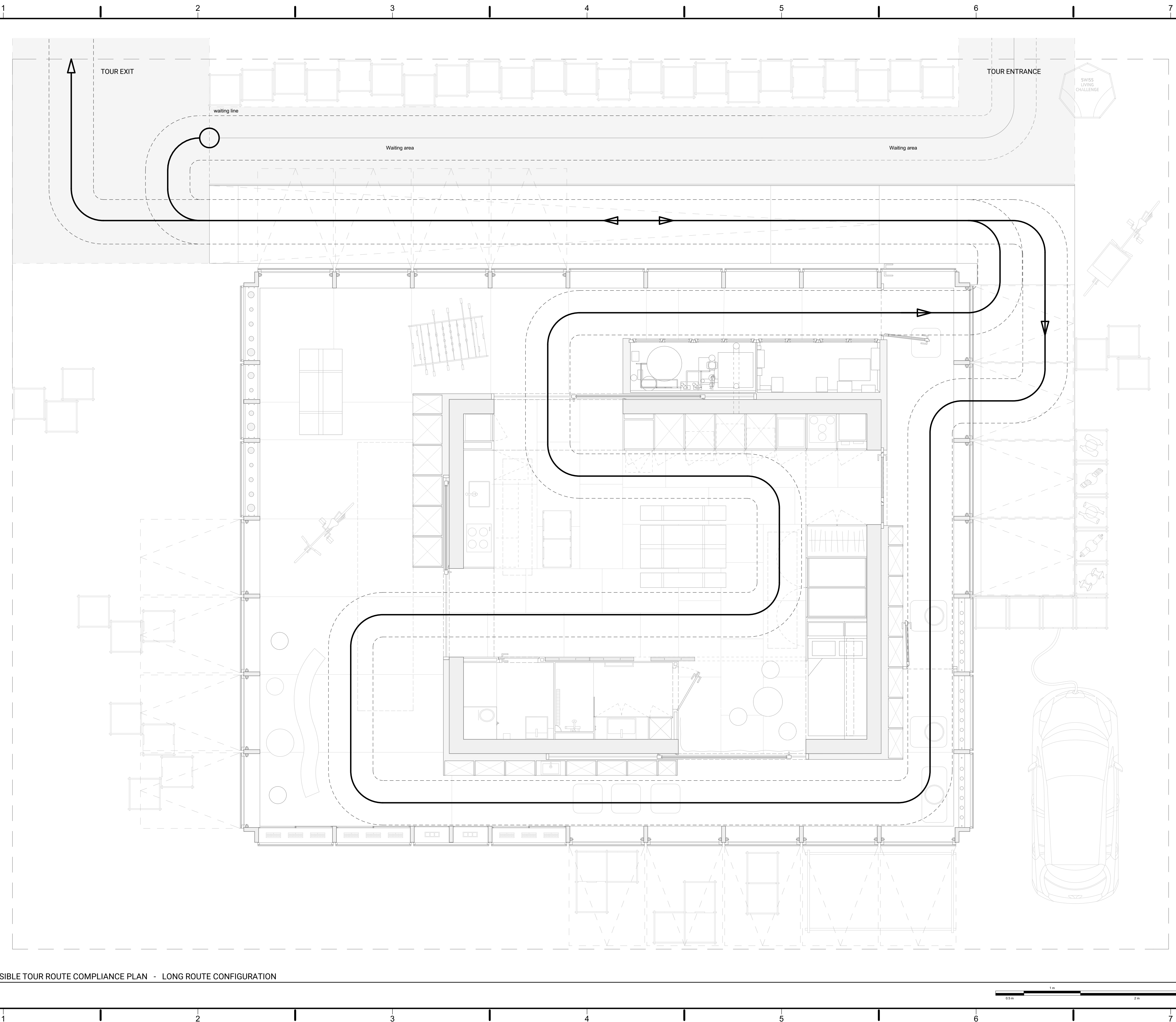
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ACCESSIBLE TOUR ROUTE COMPLIANCE PLAN

G-201



(A1) ACCESSIBLE TOUR ROUTE COMPLIANCE PLAN - LONG ROUTE CONFIGURATION



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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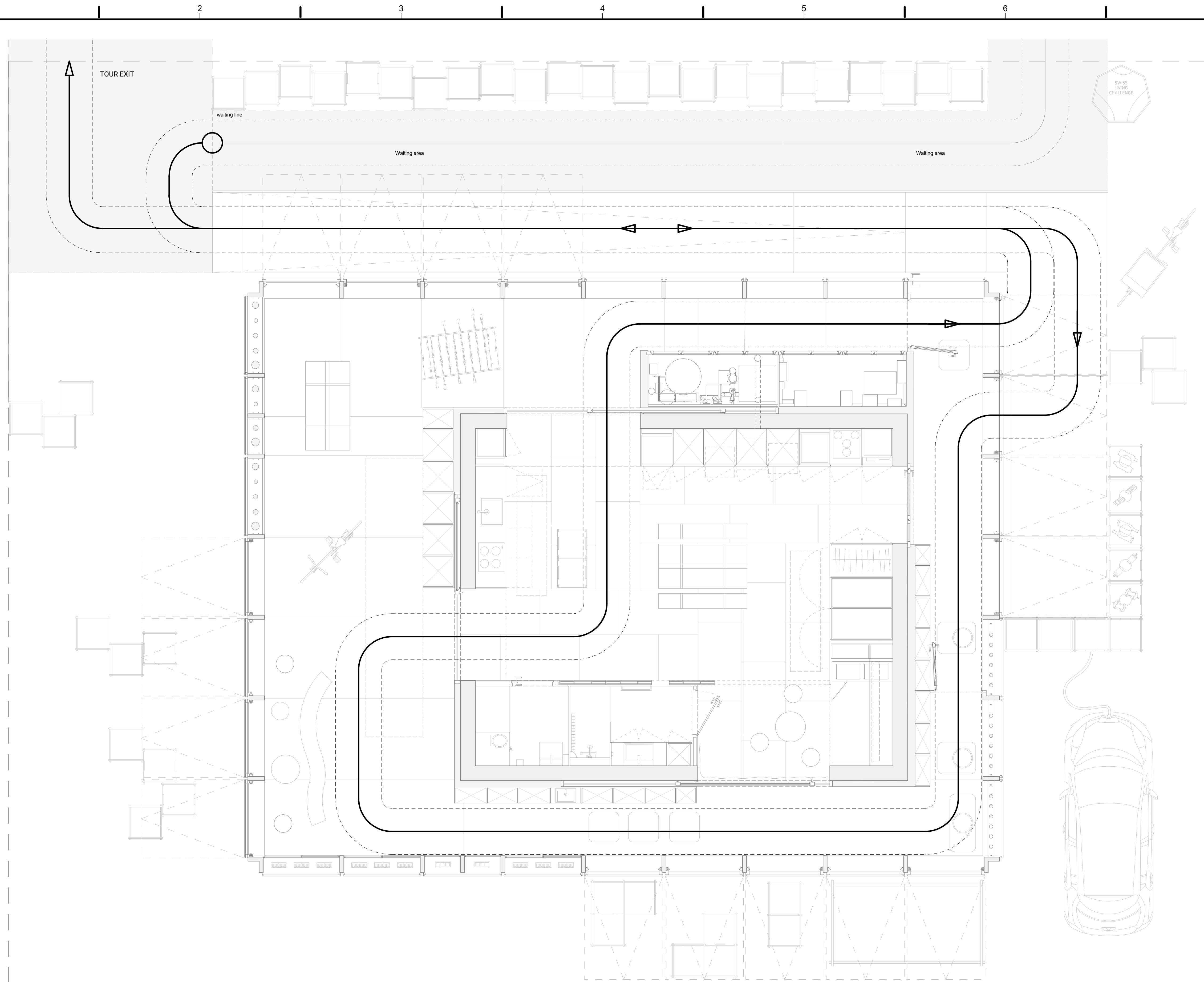
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Plans are drawn with metric system (cm)

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ACCESSIBLE TOUR ROUTE COMPLIANCE PLAN

G-202



(A1) ACCESSIBLE TOUR ROUTE COMPLIANCE PLAN - SHORT ROUTE CONFIGURATION



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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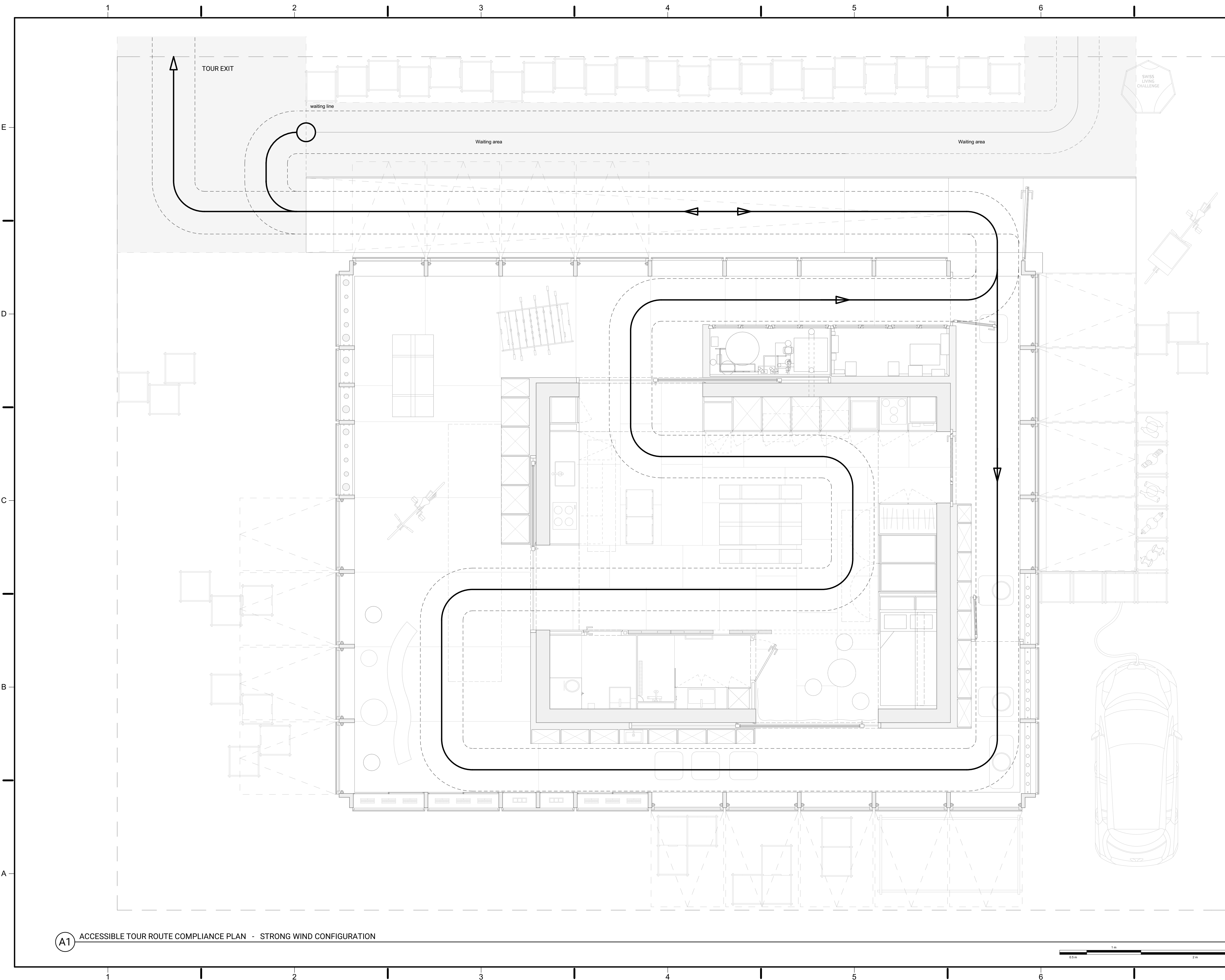
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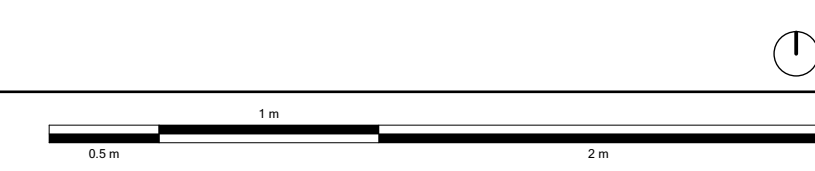
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ACCESSIBLE TOUR ROUTE COMPLIANCE PLAN

G-203



(A1) ACCESSIBLE TOUR ROUTE COMPLIANCE PLAN - STRONG WIND CONFIGURATION



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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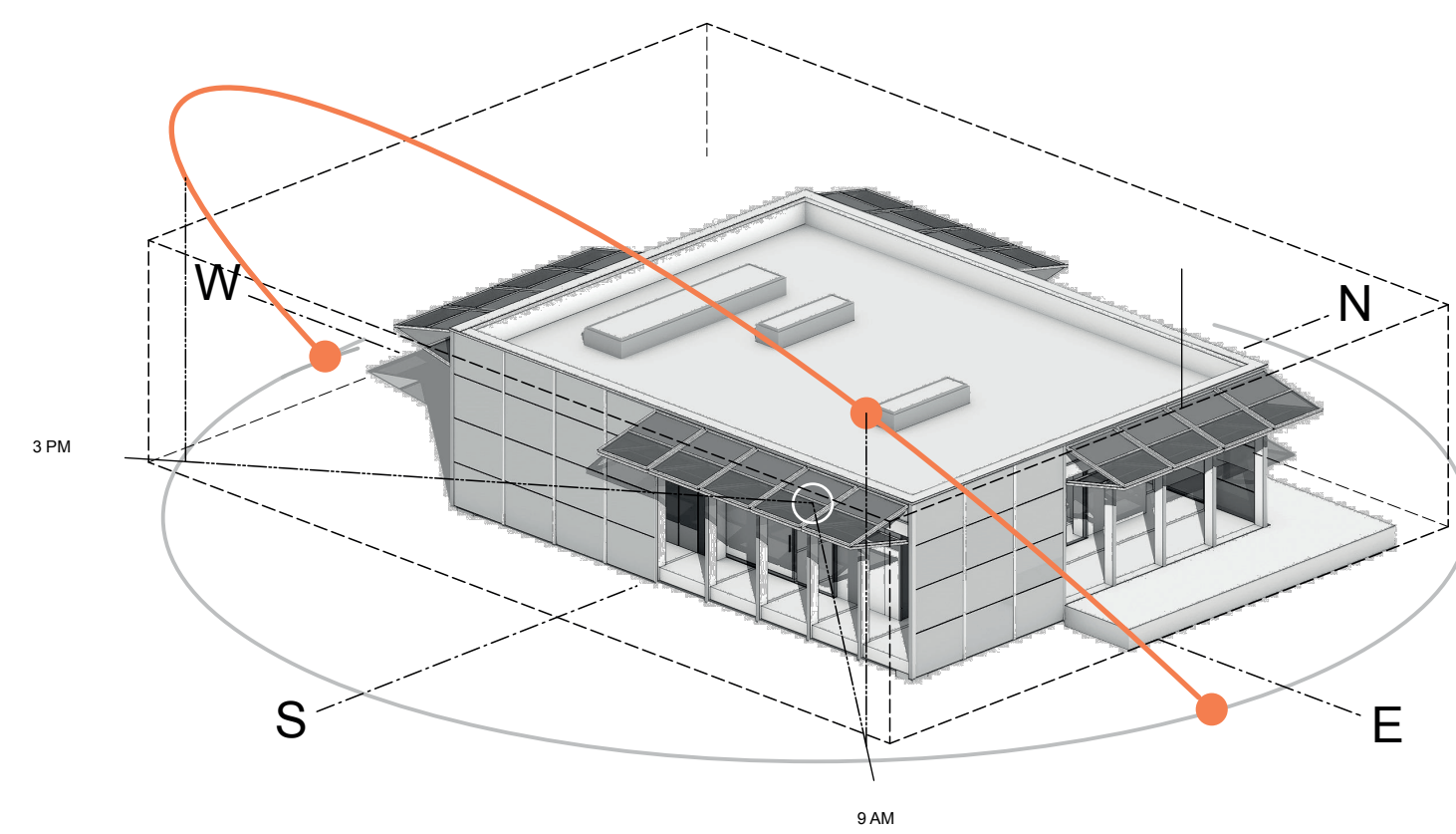
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Plans are drawn with metric system (cm)

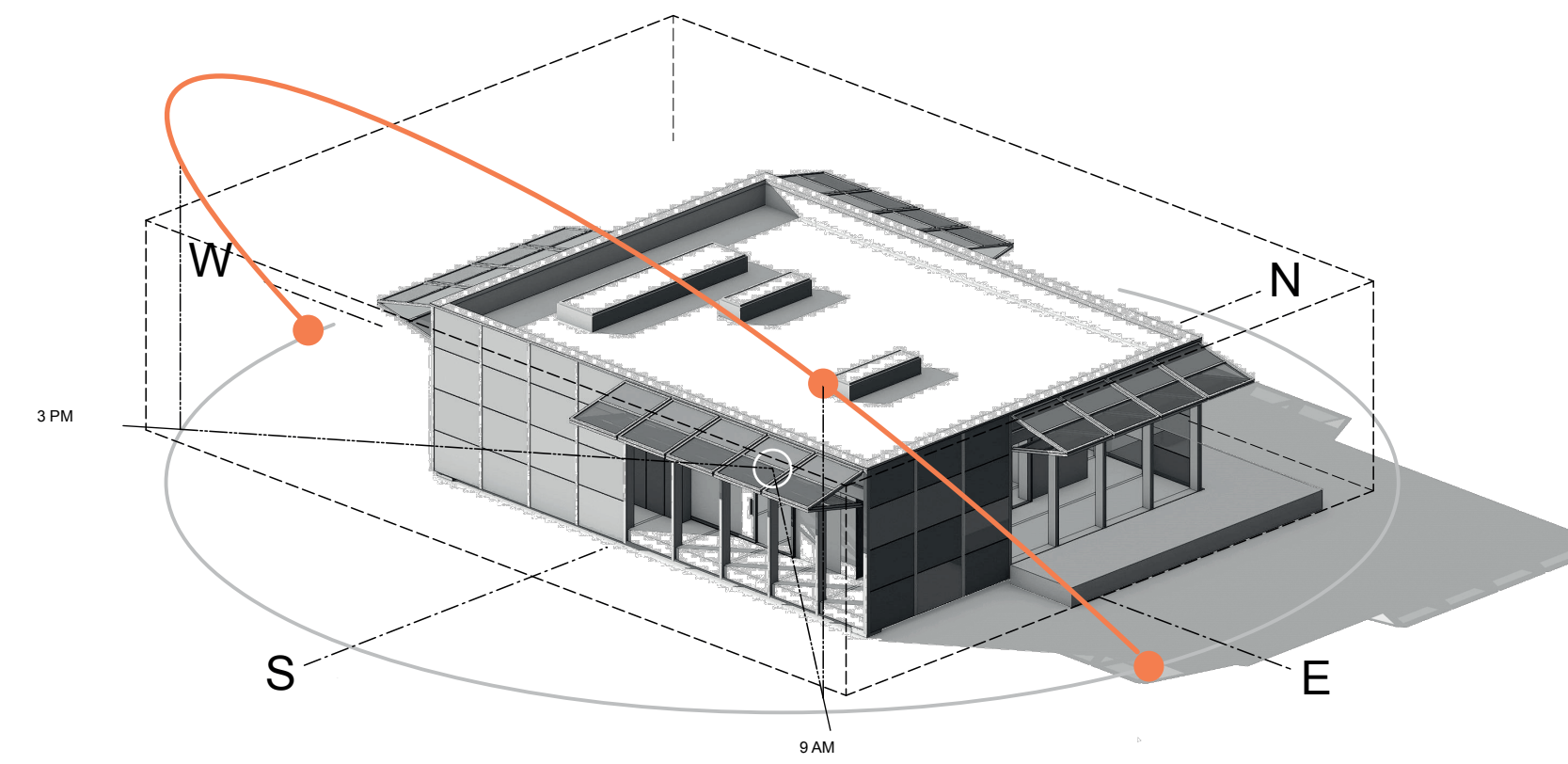
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SHADING DIAGRAMS

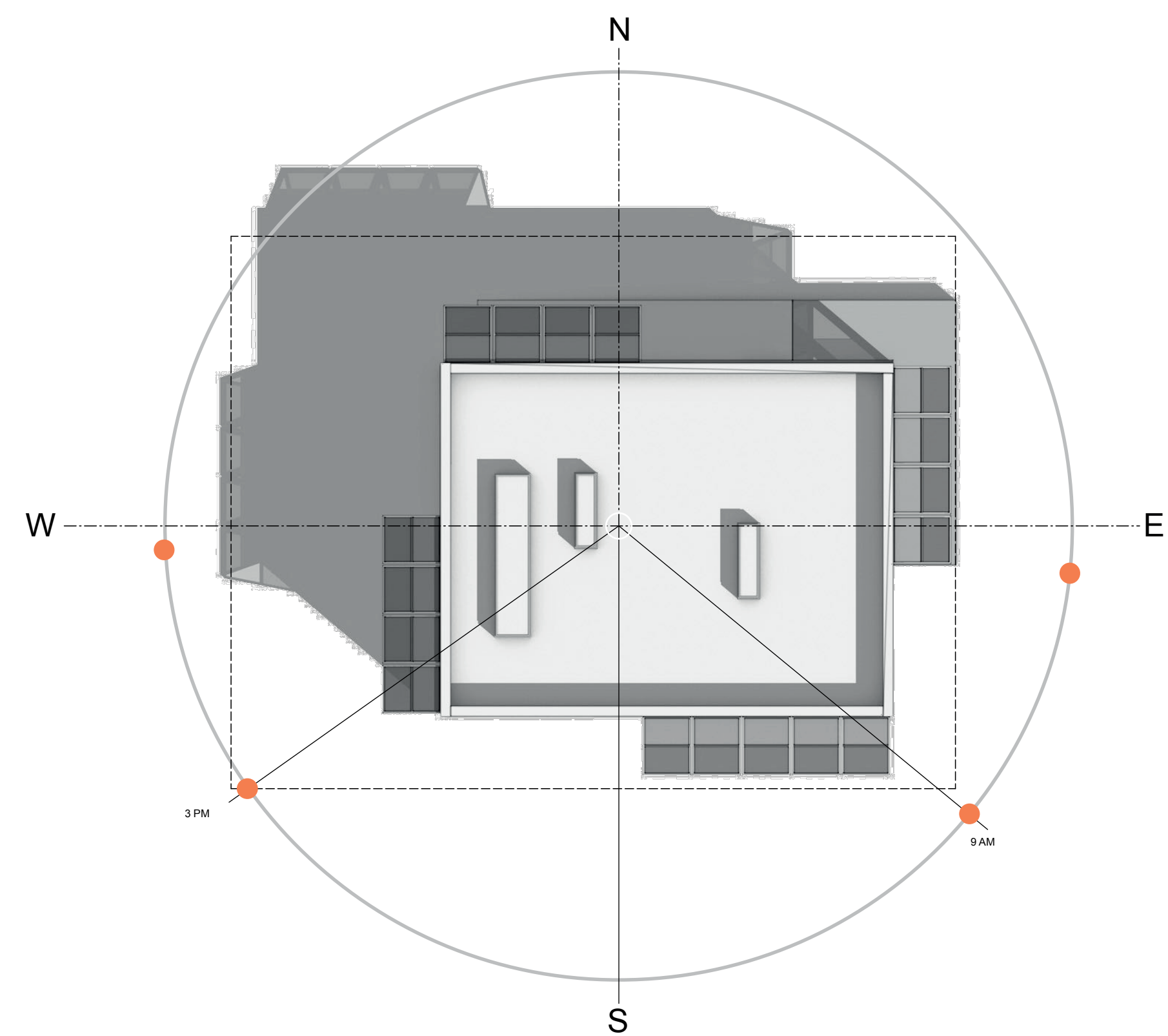
G-401



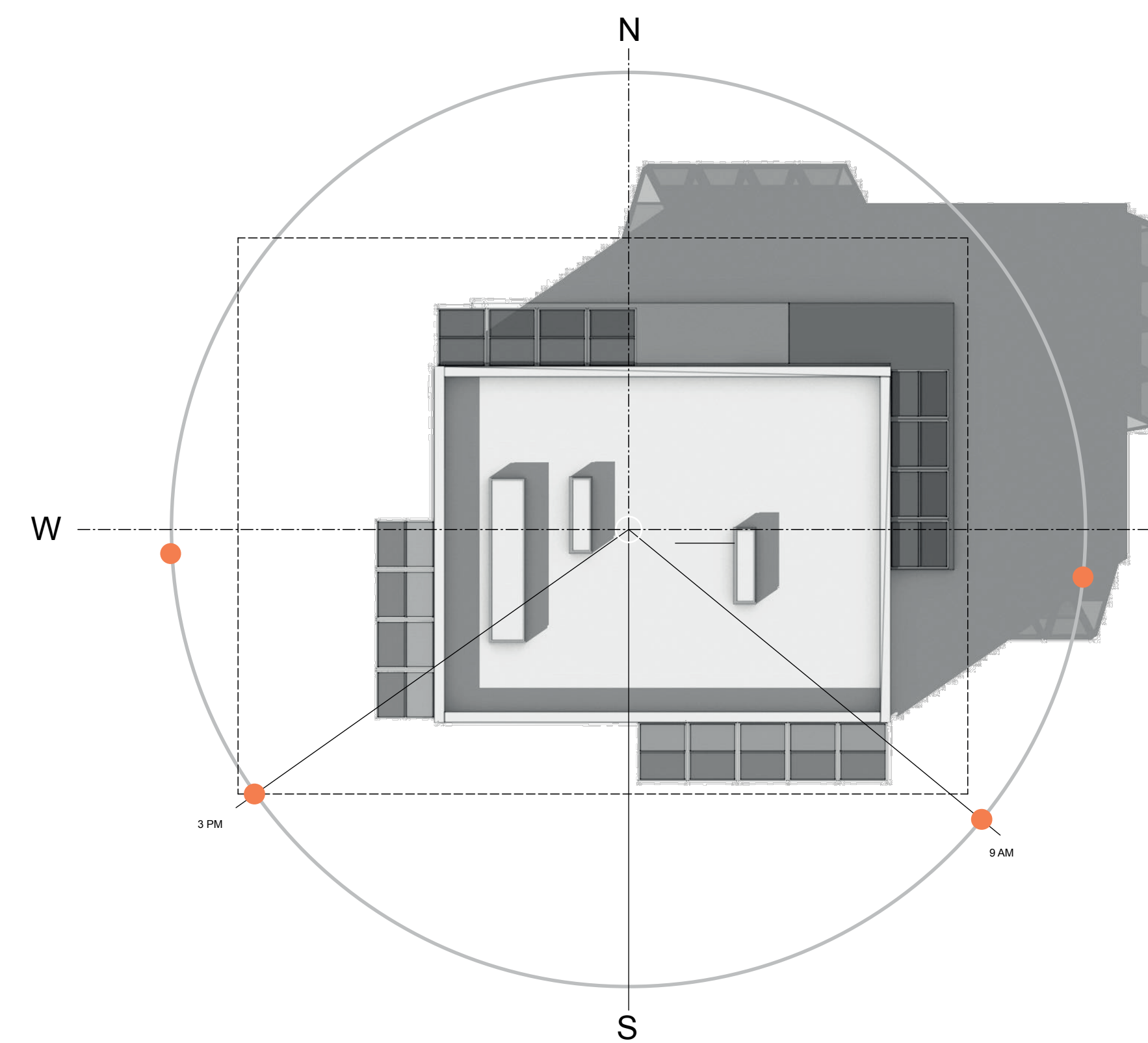
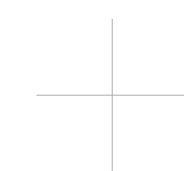
D1 10/11 SHADED AXONOMETRIC 9AM



D5 10/11 SHADED AXONOMETRIC 3PM



A1 10/11 SHADED PLAN 9AM



A5 10/11 SHADED PLAN 3PM



Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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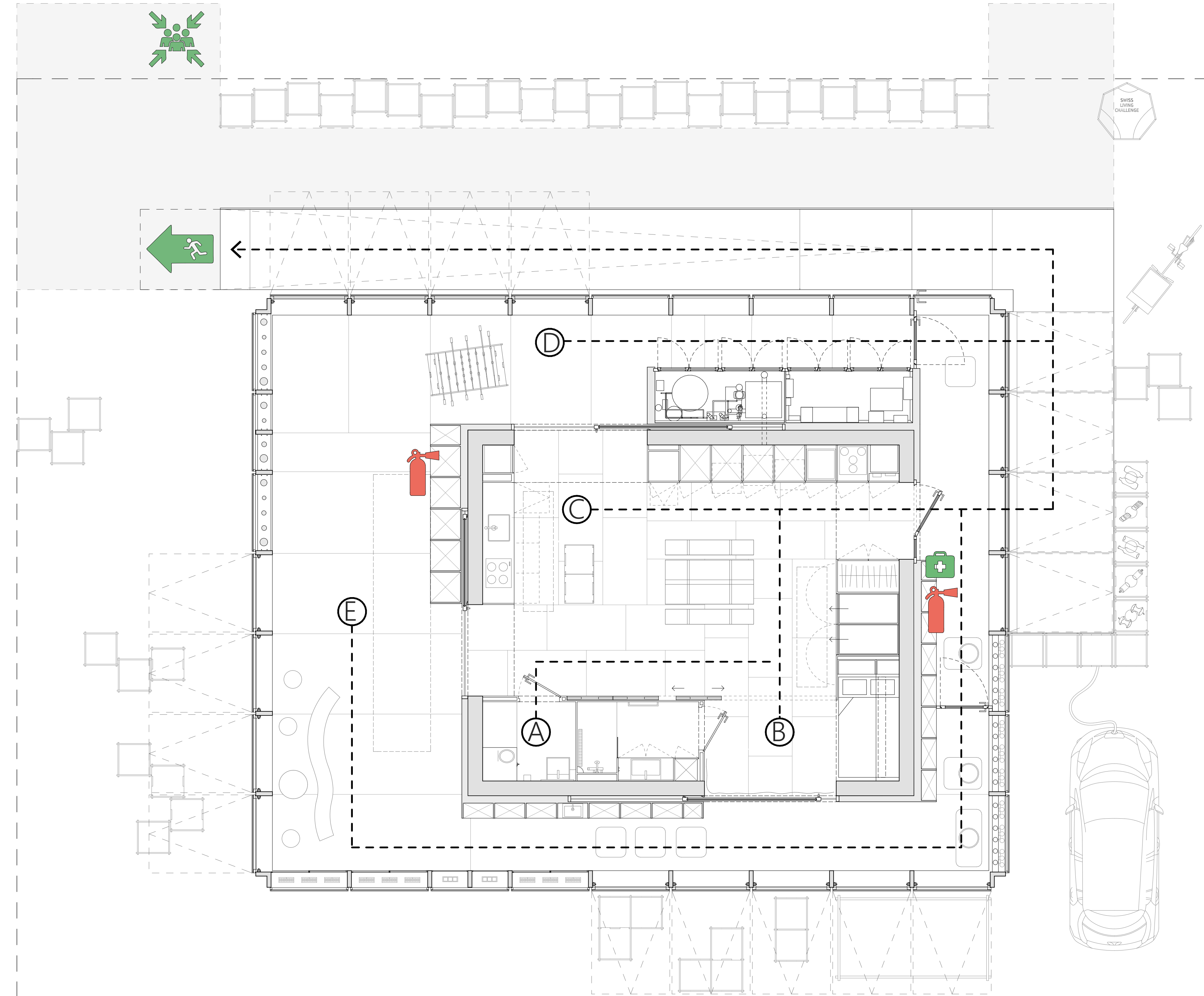
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Plans are drawn with metric system (cm)

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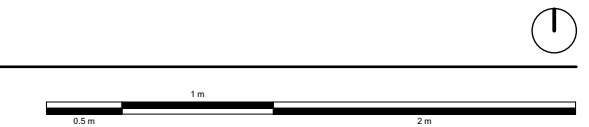
EGRESS PLAN

G-501



-  FIRE EXTINGUISHER
Fire extinguisher located outside at the primary entry
-  FIRST AID KIT
First aid box is located outside at the primary entry
-  EMERGENCY EXIT
-  ASSEMBLY POINT

A1 EGRESS PLAN - normal situation



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CH-1700 Fribourg

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http://www.swiss-living-challenge.ch

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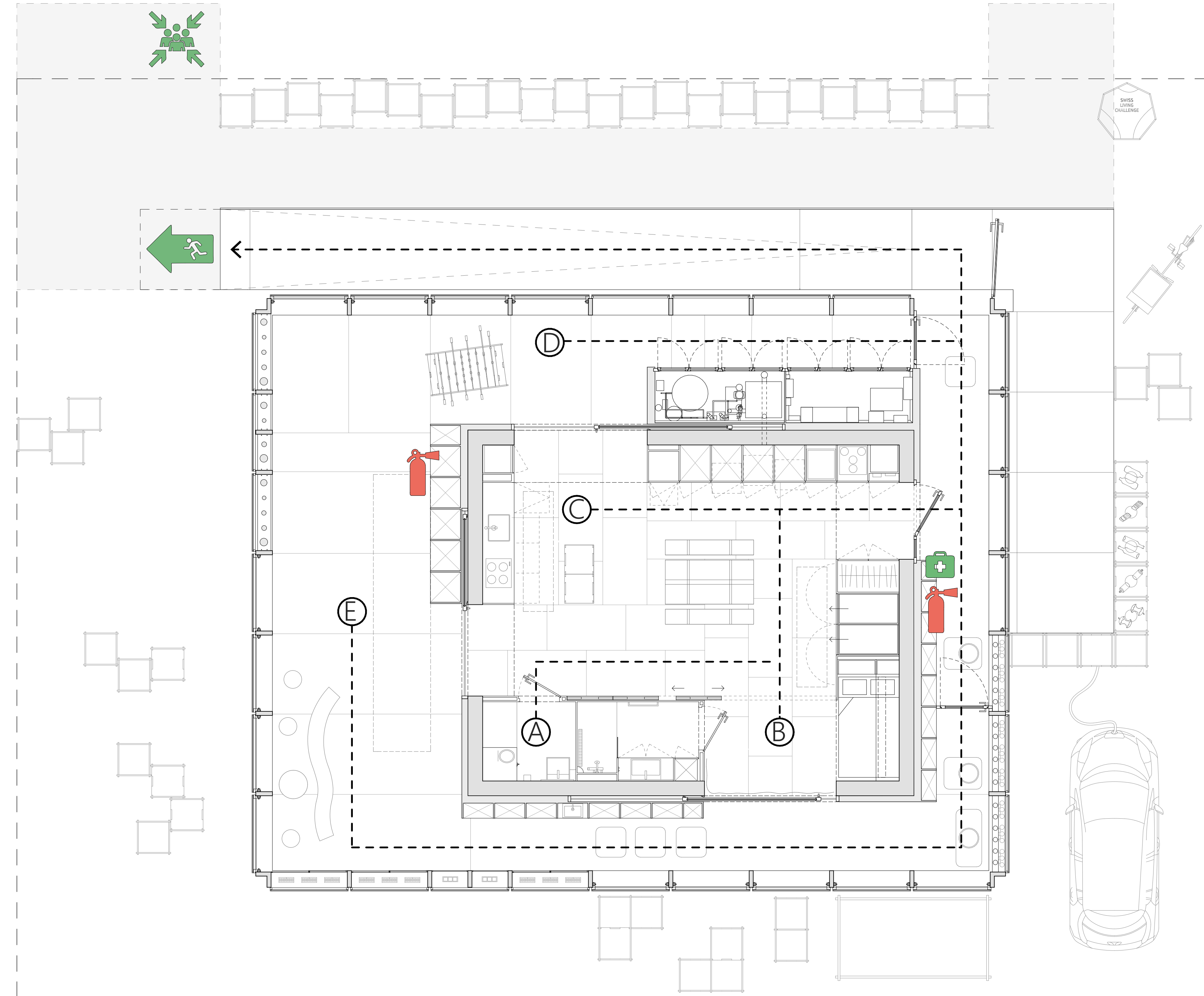
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Plans are drawn with metric system (cm)

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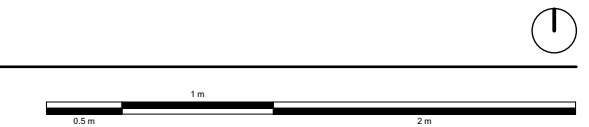
EGRESS PLAN

G-502



-  FIRE EXTINGUISHER
Fire extinguisher located outside at the primary entry
-  FIRST AID KIT
First aid box is located outside at the primary entry
-  EMERGENCY EXIT
-  ASSEMBLY POINT

A1 EGRESS PLAN - wind higher than 70 km/h (43.5 MPH)



Swiss Living Challenge



TEAM NAME: SWISS TEAM
 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
 http://www.swiss-living-challenge.ch

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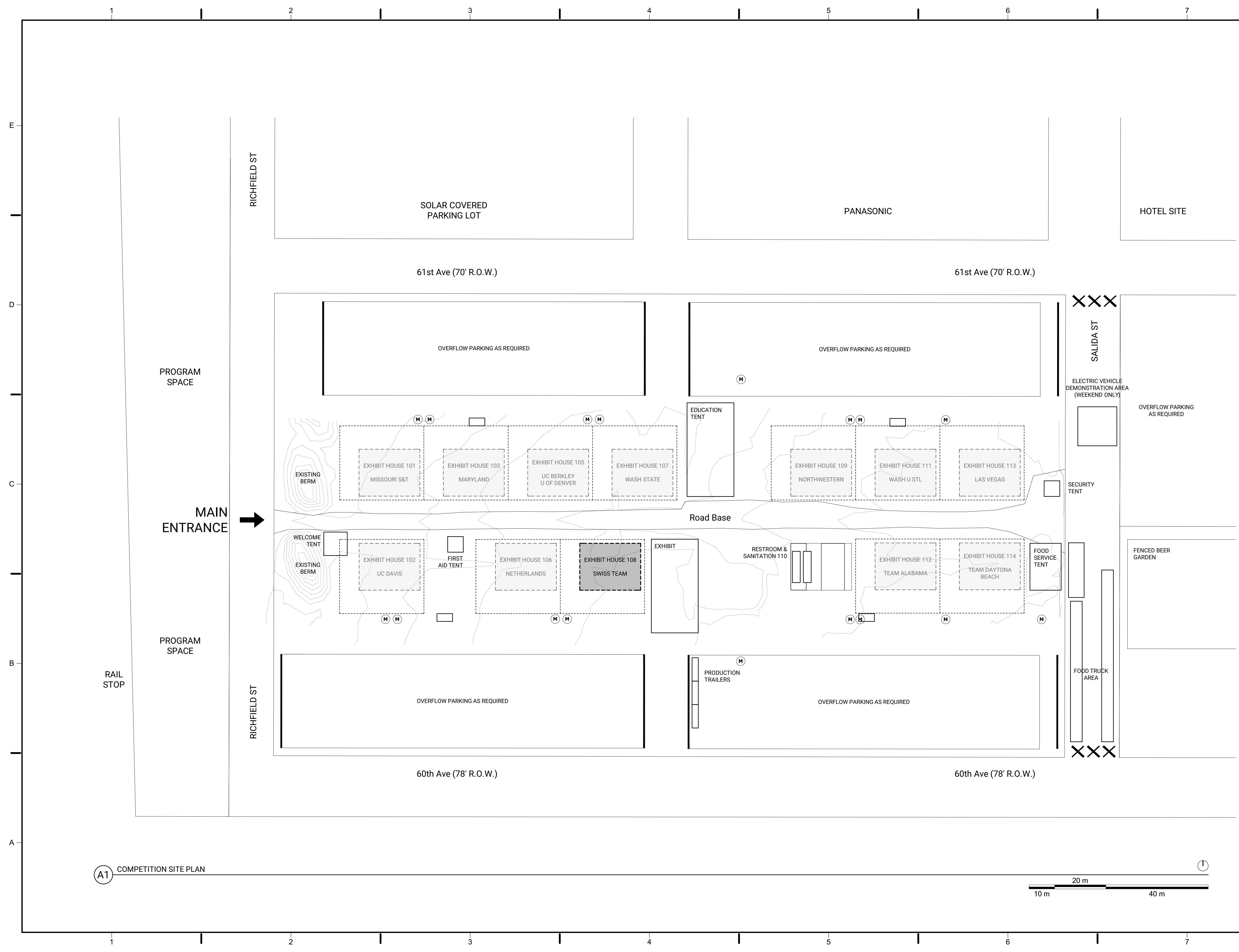
N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE 08
02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:700

COMPETITION SITE PLAN

C-101



A1 COMPETITION SITE PLAN

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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03	2017-08-10	DELIVERABLE 08
02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

LANDSCAPE PLAN

L-101



A1 LANDSCAPE PLAN - SHORT RAMP CONFIGURATION

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE 08
02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

LANDSCAPE PLAN

L-102



A1 LANDSCAPE PLAN - LONG RAMP CONFIGURATION

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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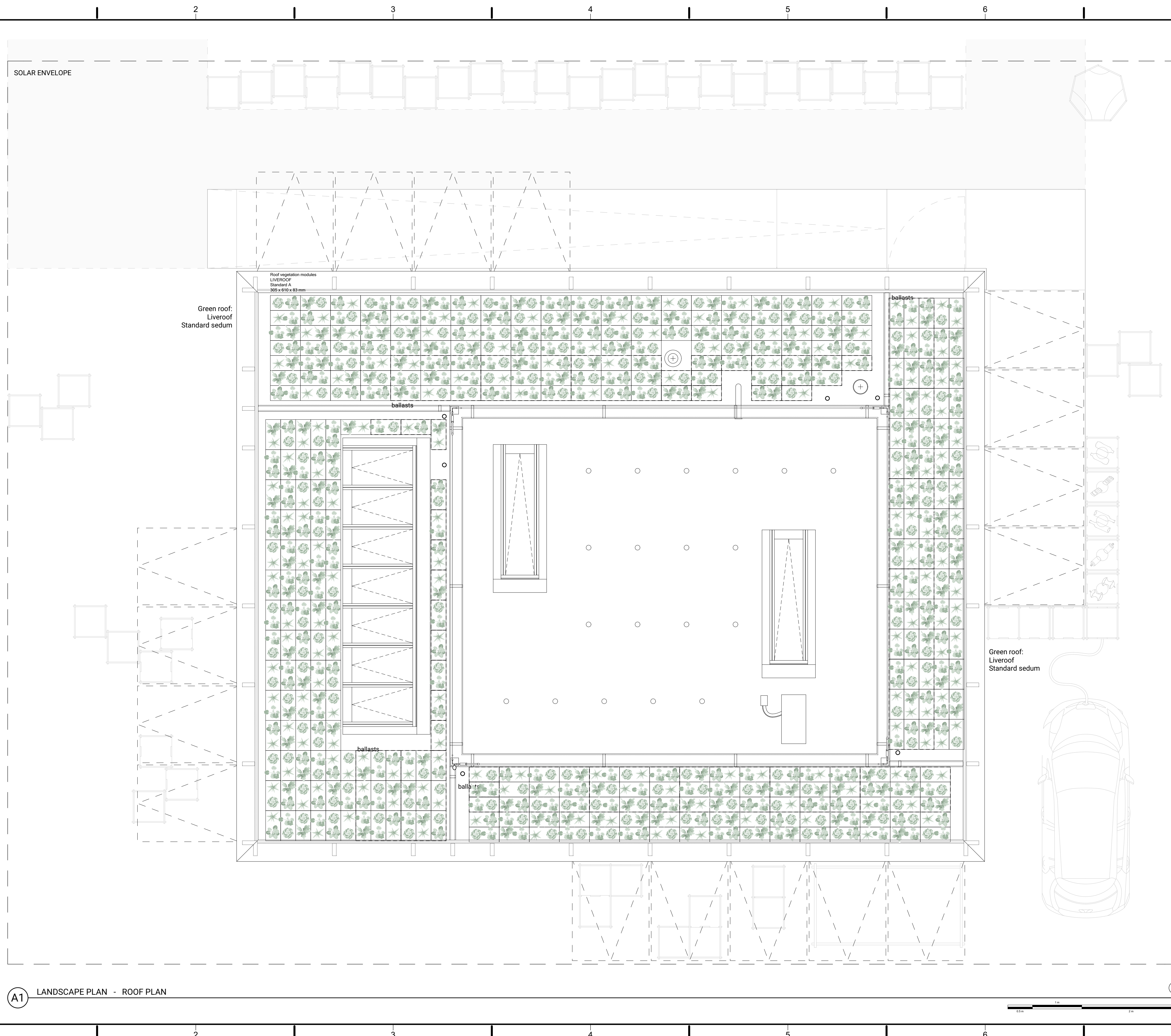
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

LANDSCAPE ROOF PLAN

L-103



A1 LANDSCAPE PLAN - ROOF PLAN



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

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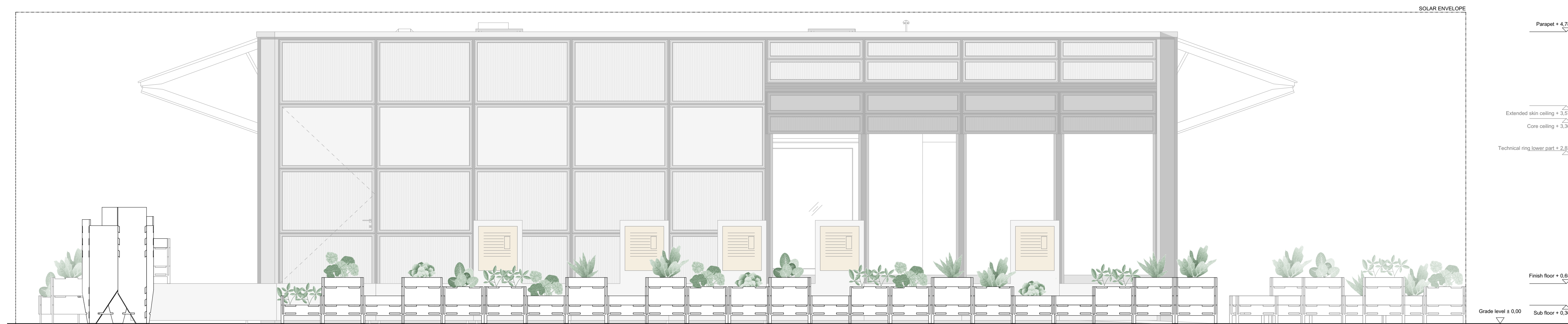
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06	2017-02-16	DELIVERABLE 06
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04	2016-10-28	MODIFICATIONS SEMAINE 44
03	2016-10-24	MODIFICATIONS SEMAINE 43
02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

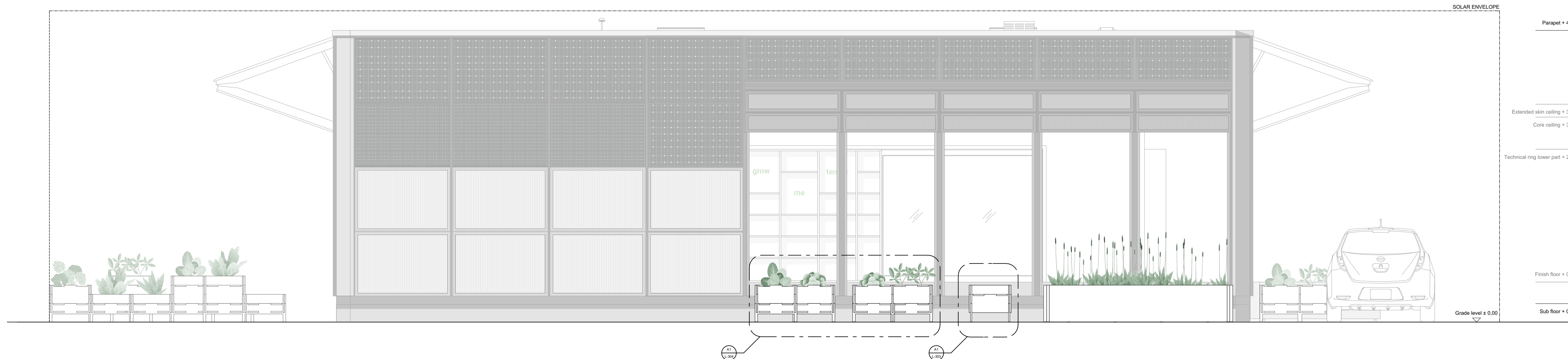
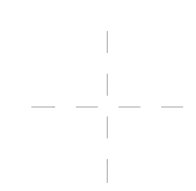
DRAWN BY: JACQUET scale: 1:40

LANDSCAPE ELEVATIONS

L-201



C1 NORTH LANDSCAPE ELEVATION



A1 SOUTH LANDSCAPE ELEVATION

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TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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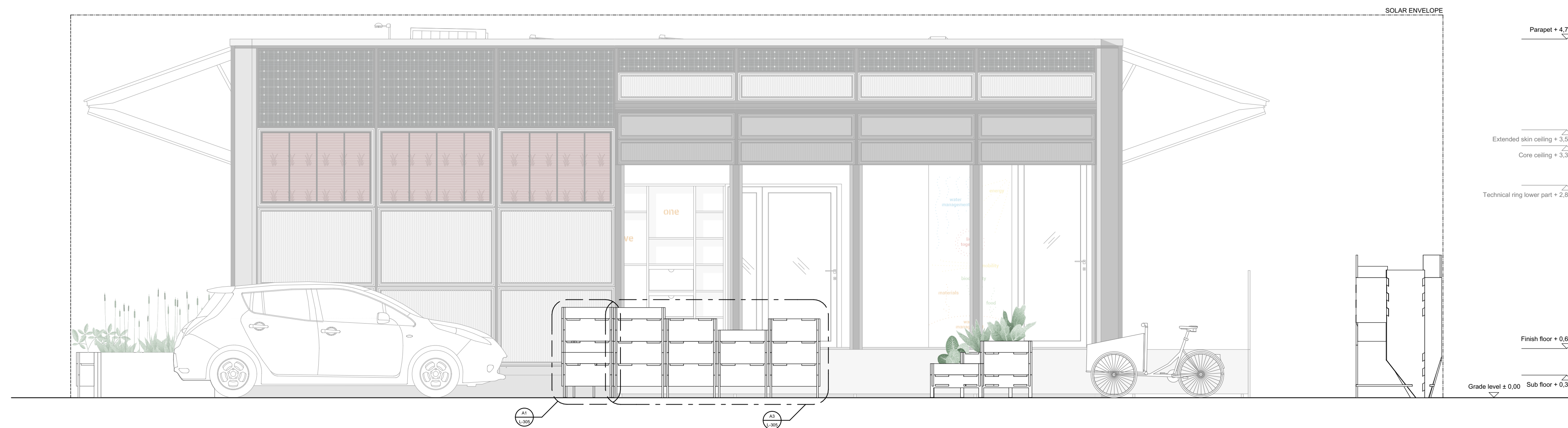
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05	2016-11-06	DELIVERABLE 04
04	2016-10-28	MODIFICATIONS SEMAINE 44
03	2016-10-24	MODIFICATIONS SEMAINE 43
02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: JACQUET scale: 1:40

LANDSCAPE ELEVATIONS

L-202



C1 EAST LANDSCAPE ELEVATION



A1 WEST LANDSCAPE ELEVATION



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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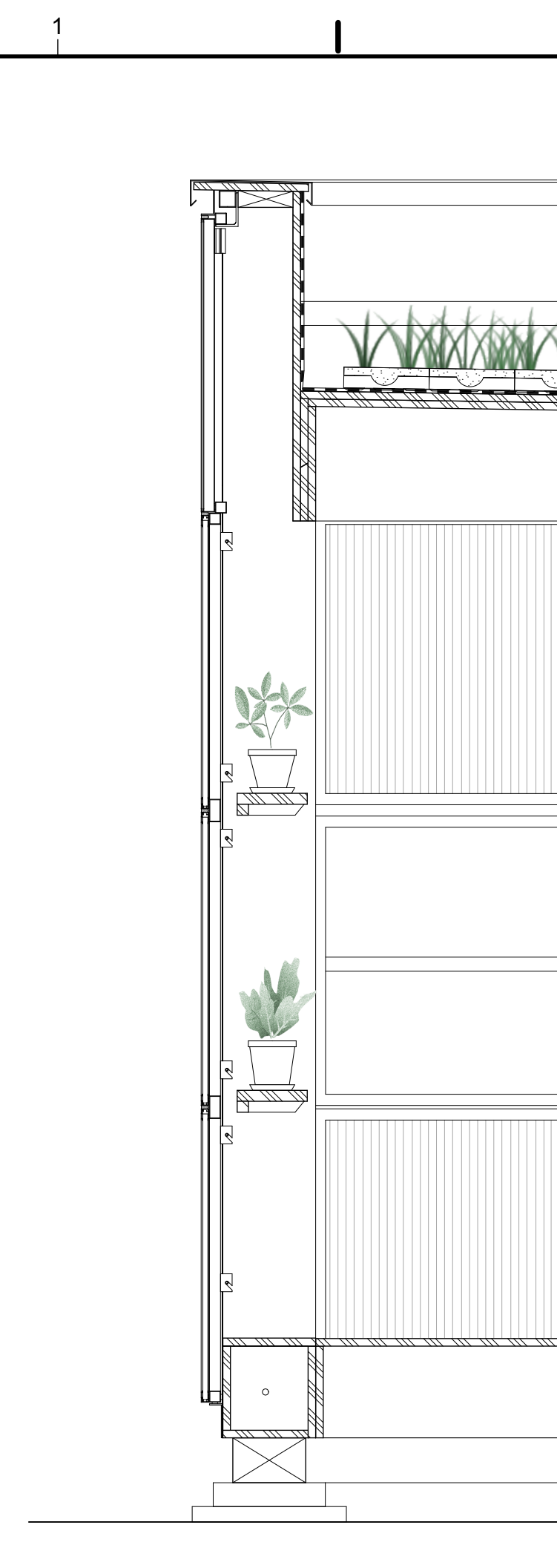
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:20

PLANTING DETAILS

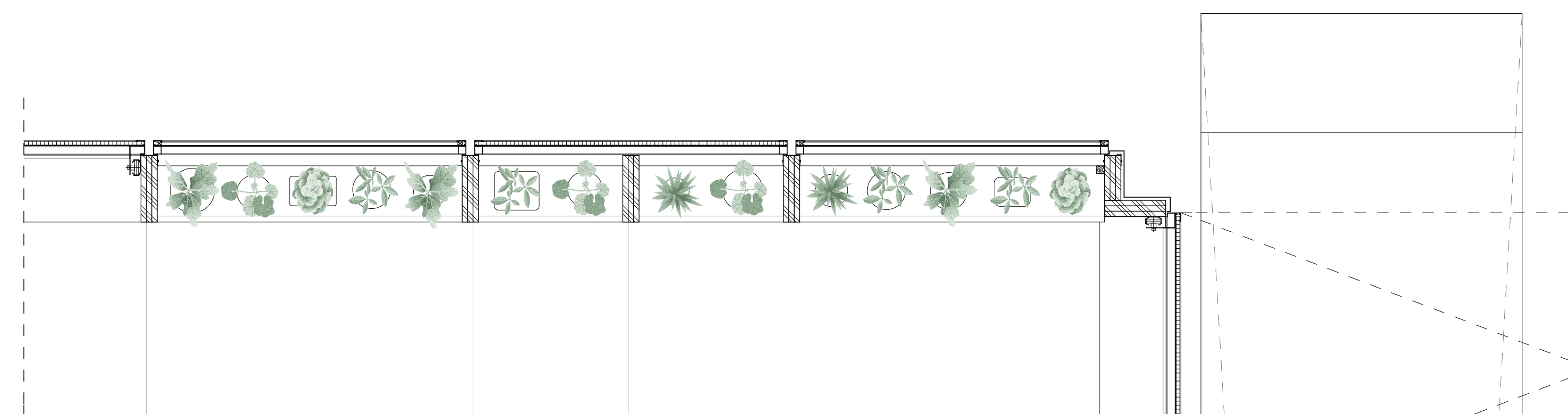
L-301



C1 VERTICAL GARDEN - SECTION



C3 VERTICAL GARDEN - ELEVATION



A5 VERTICAL GARDEN - PLAN

Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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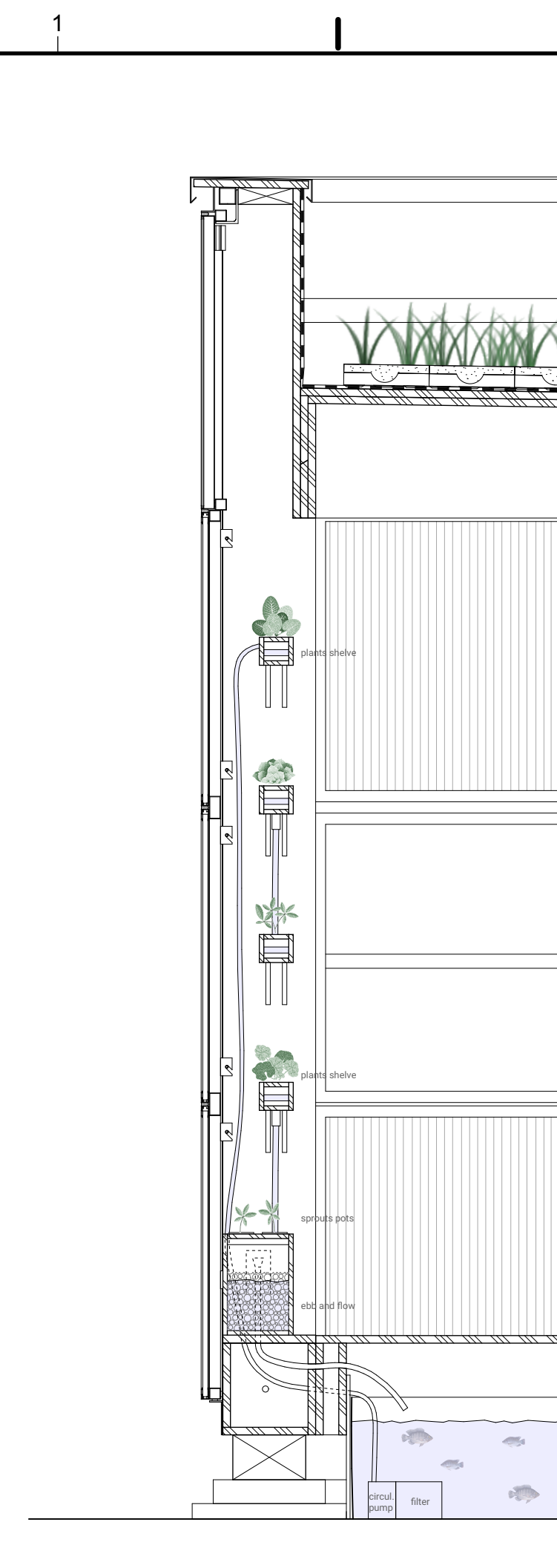
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

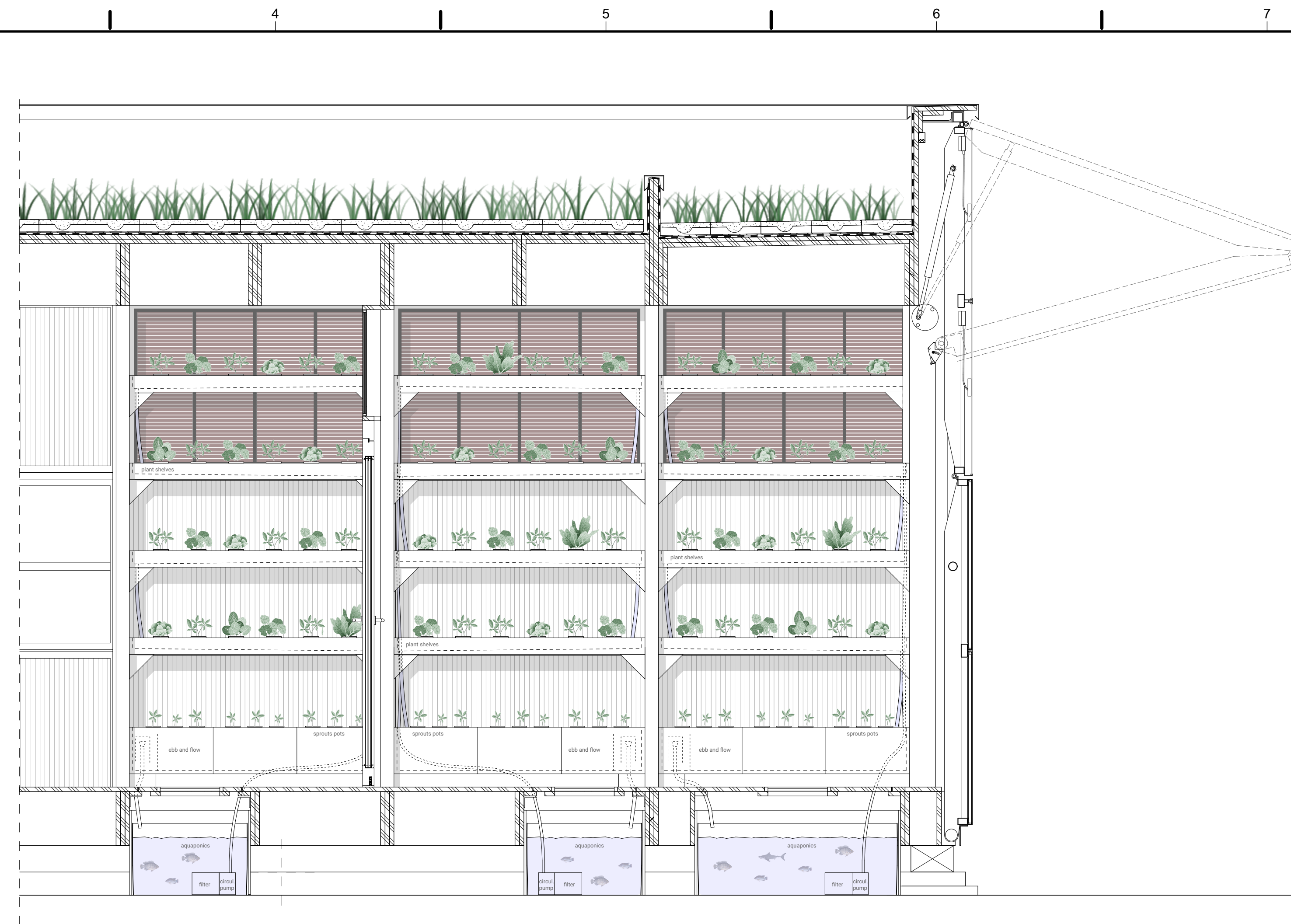
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PLANTING DETAILS

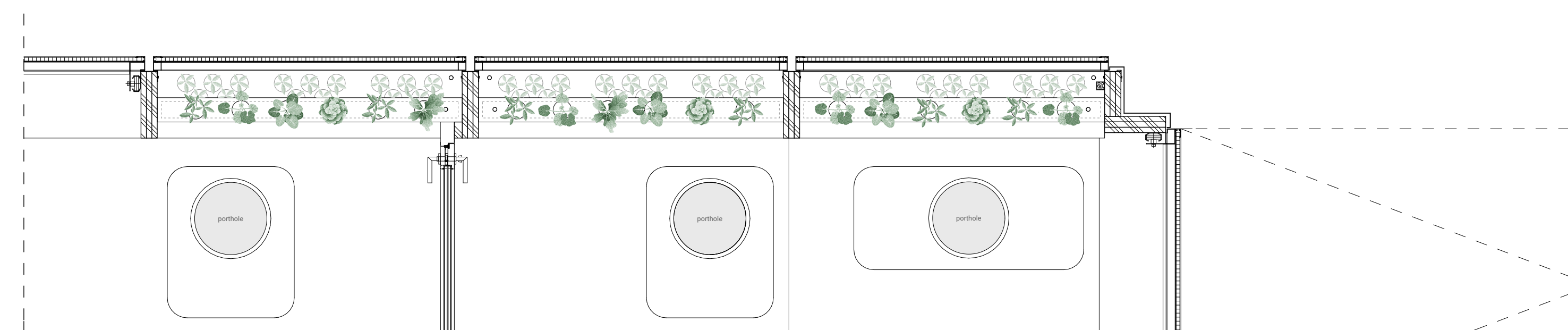
L-302



C1 AQUAPONIC SYSTEM - SECTION
Scale: 10 cm, 20 cm, 50 cm



C3 AQUAPONIC SYSTEM - ELEVATION
Scale: 10 cm, 20 cm, 50 cm



A5 AQUAPONIC SYSTEM - PLAN
Scale: 10 cm, 20 cm, 50 cm

Swiss Living Challenge



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ADDRESS: smart living lab / SLC
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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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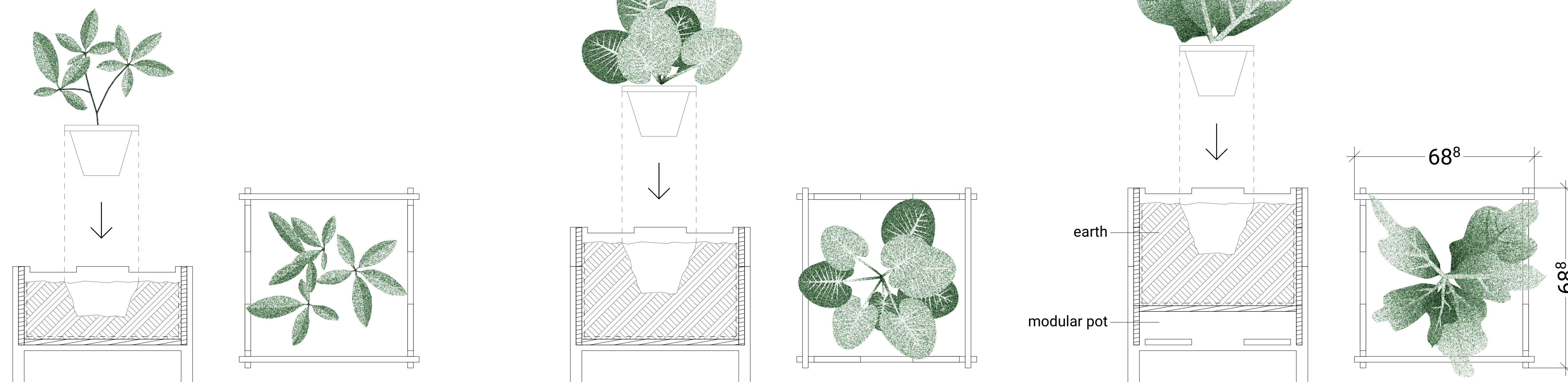
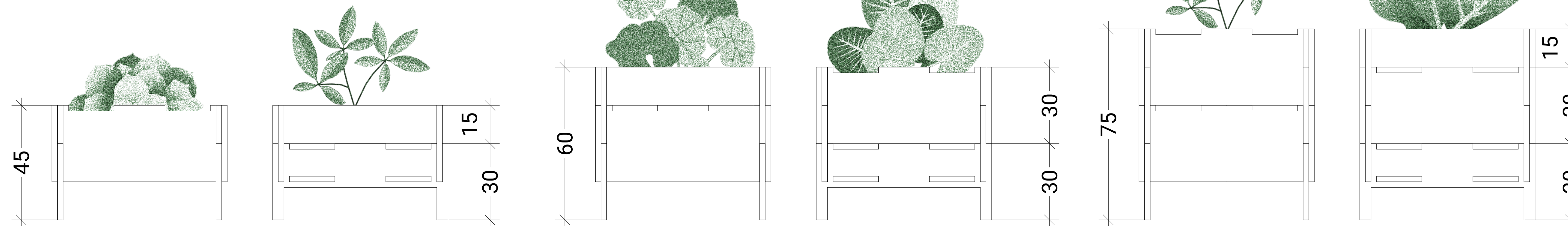
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

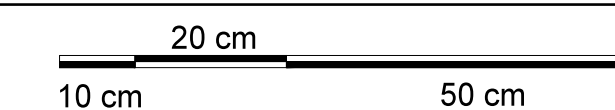
DRAWN BY: SIMON scale: 1:10

PLANTING DETAILS

L-303



A1 PLANTING DETAILED PLAN - POTS



Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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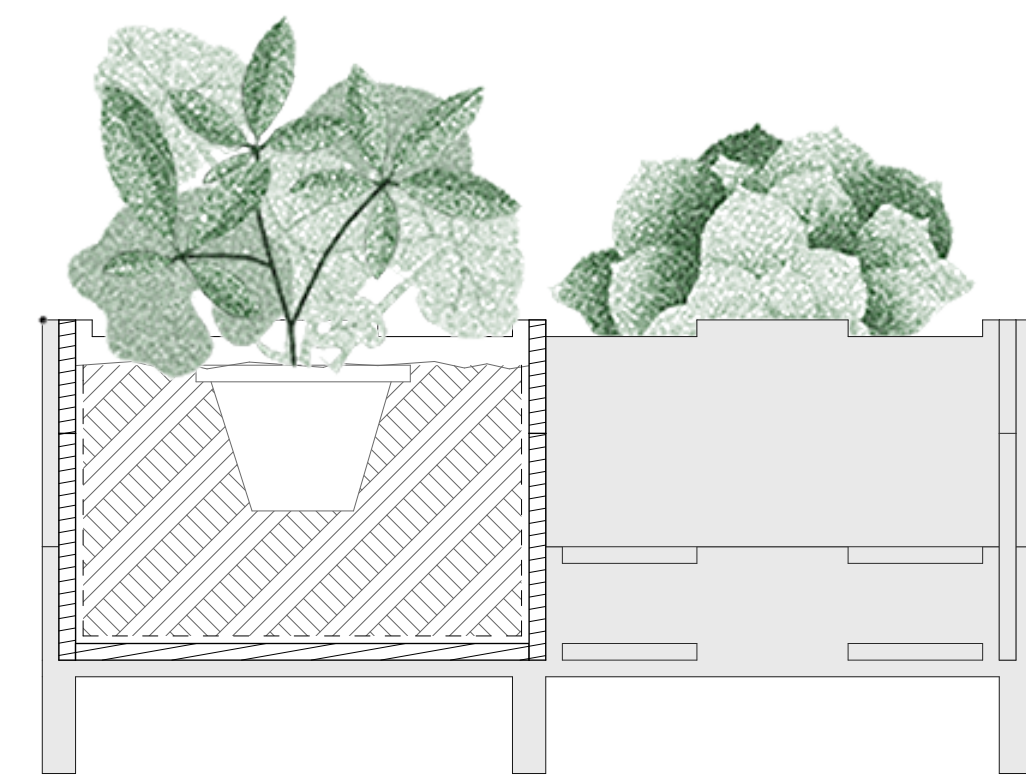
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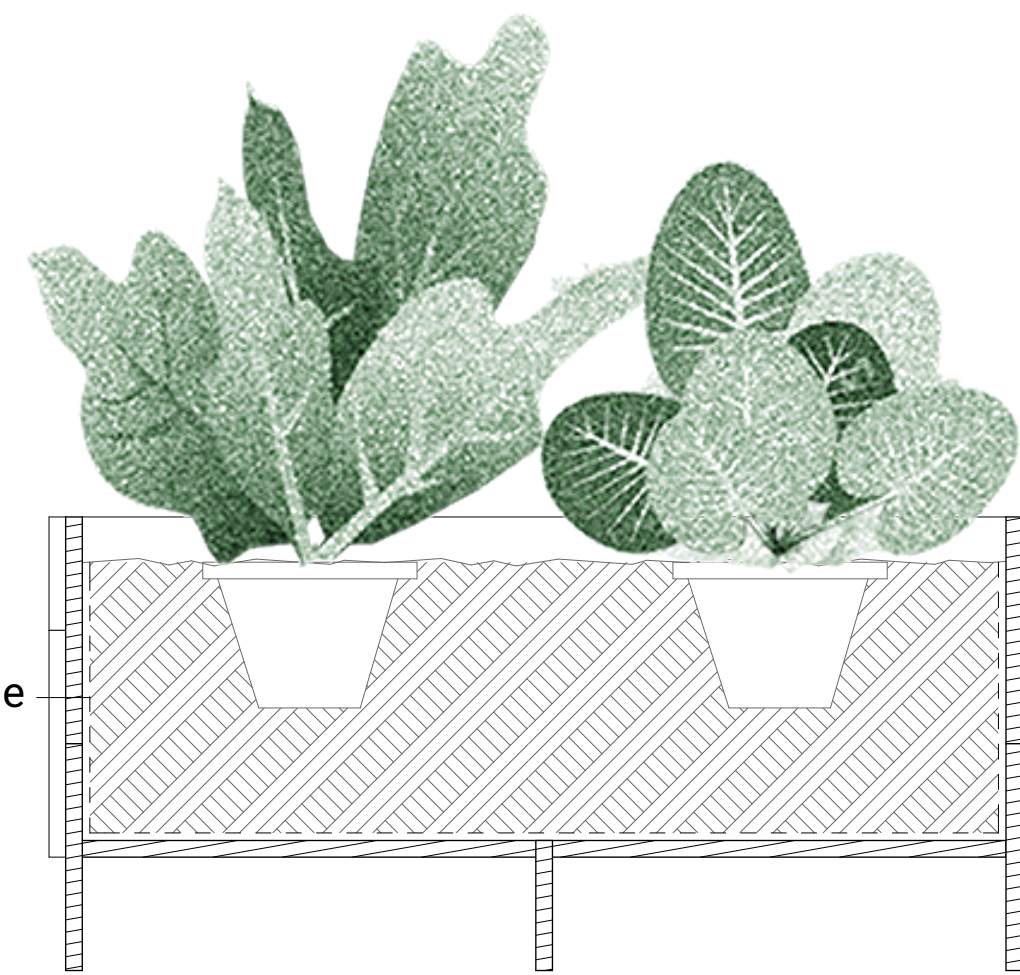
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PLANTING DETAILS

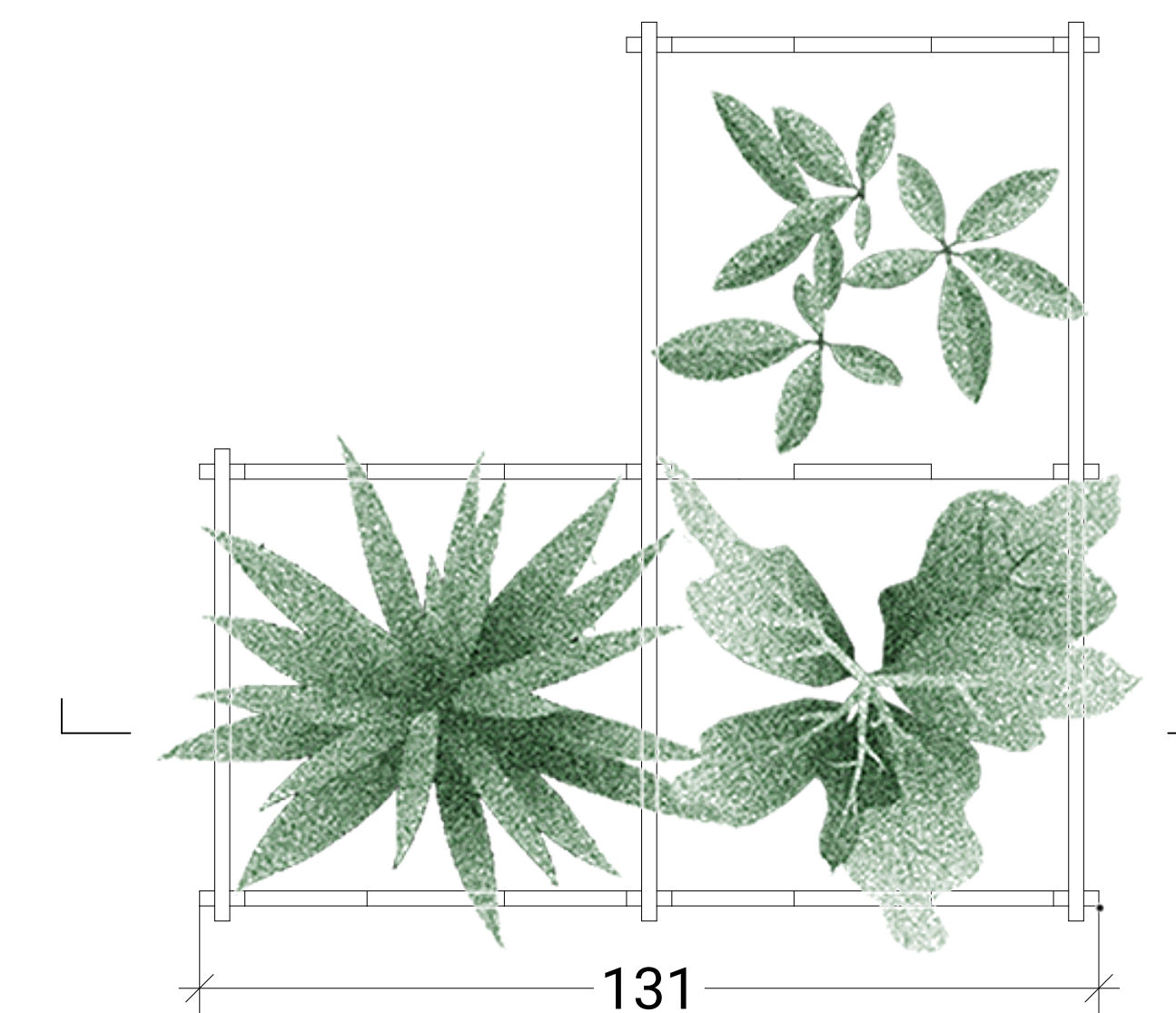
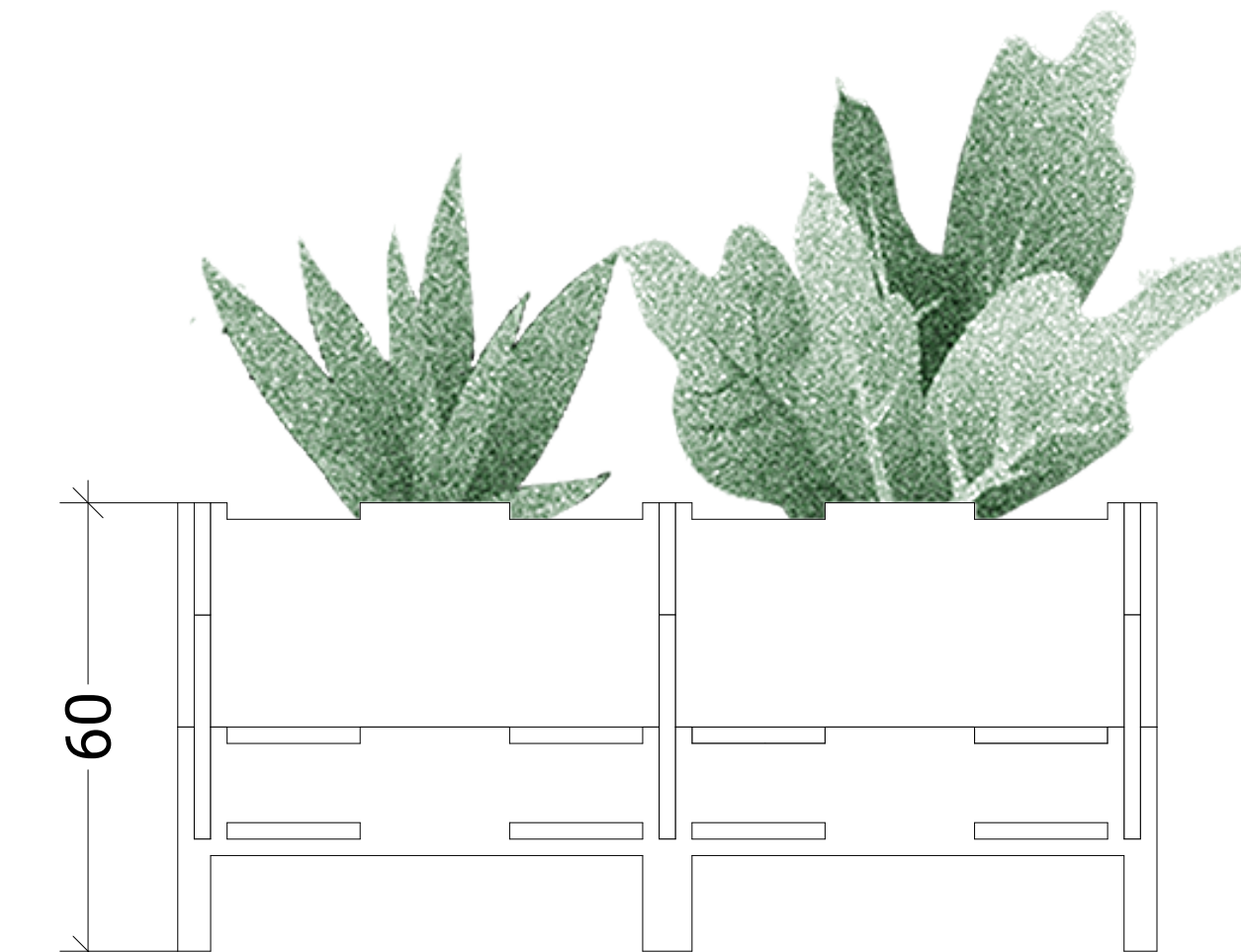
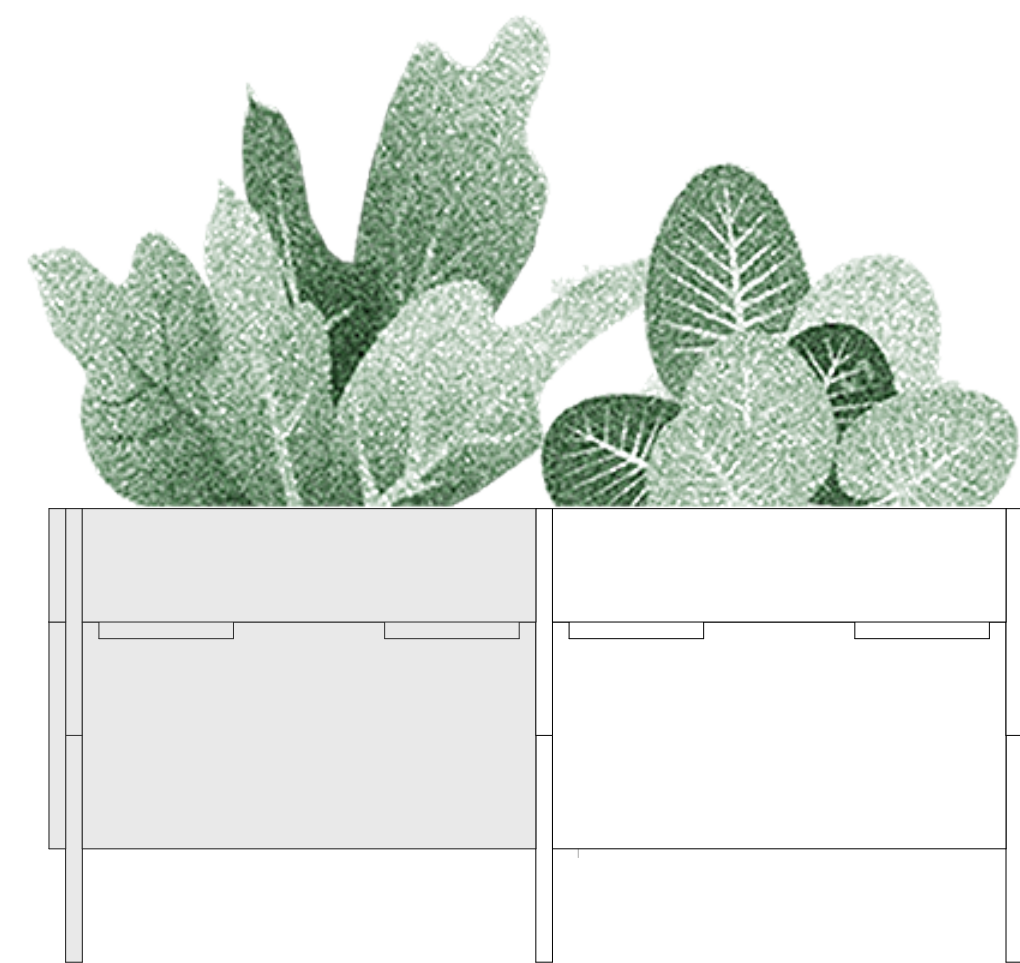
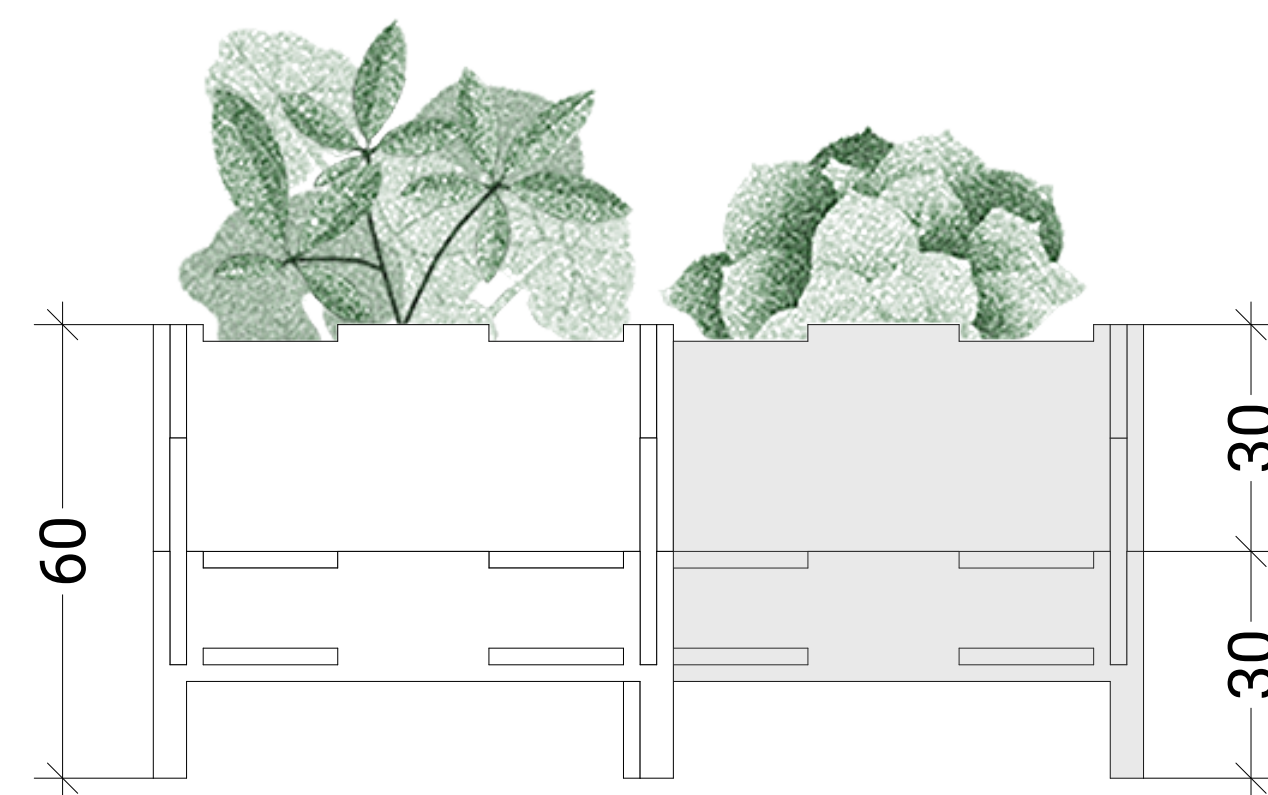
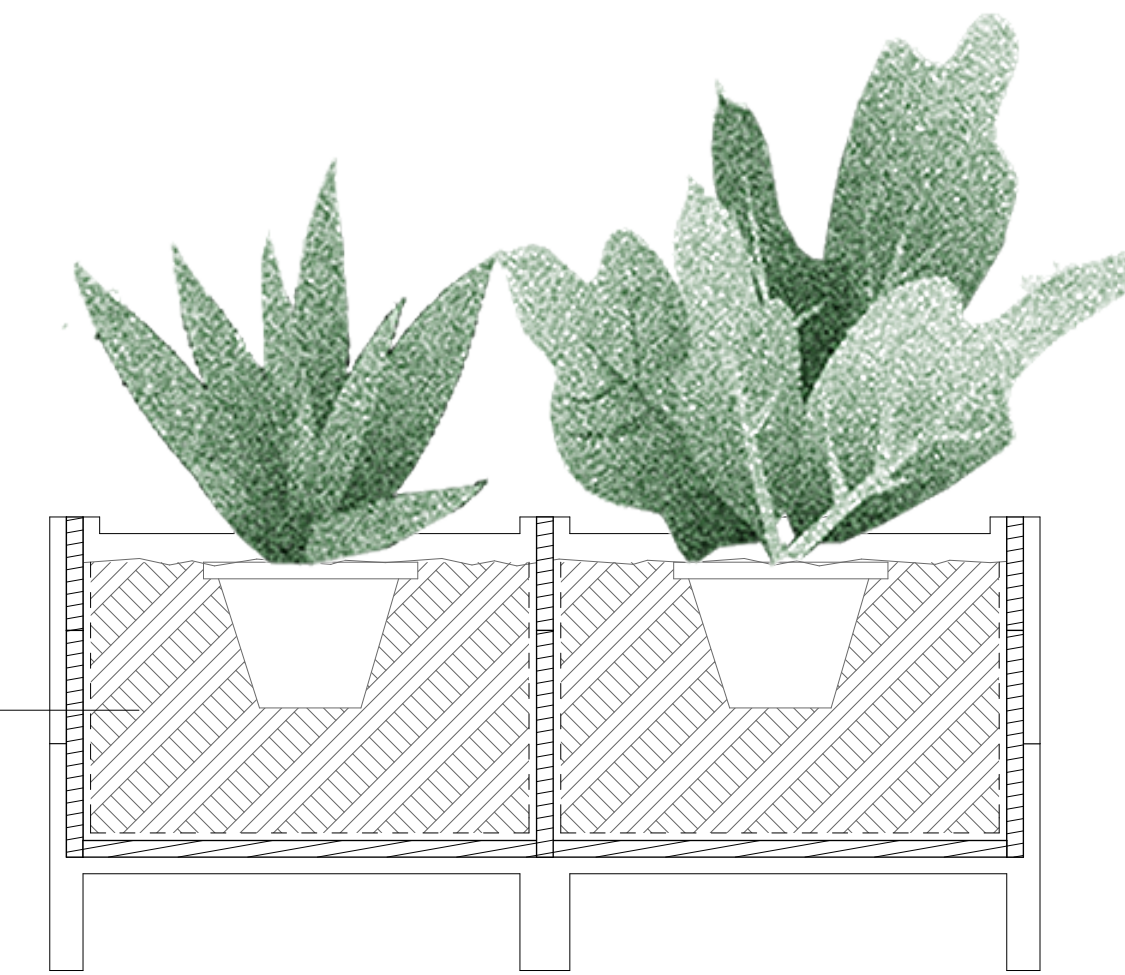
L-304



geotextile



earth



A1 PLANTING DETAILED PLAN - URBAN GARDENING

20 cm
10 cm 50 cm

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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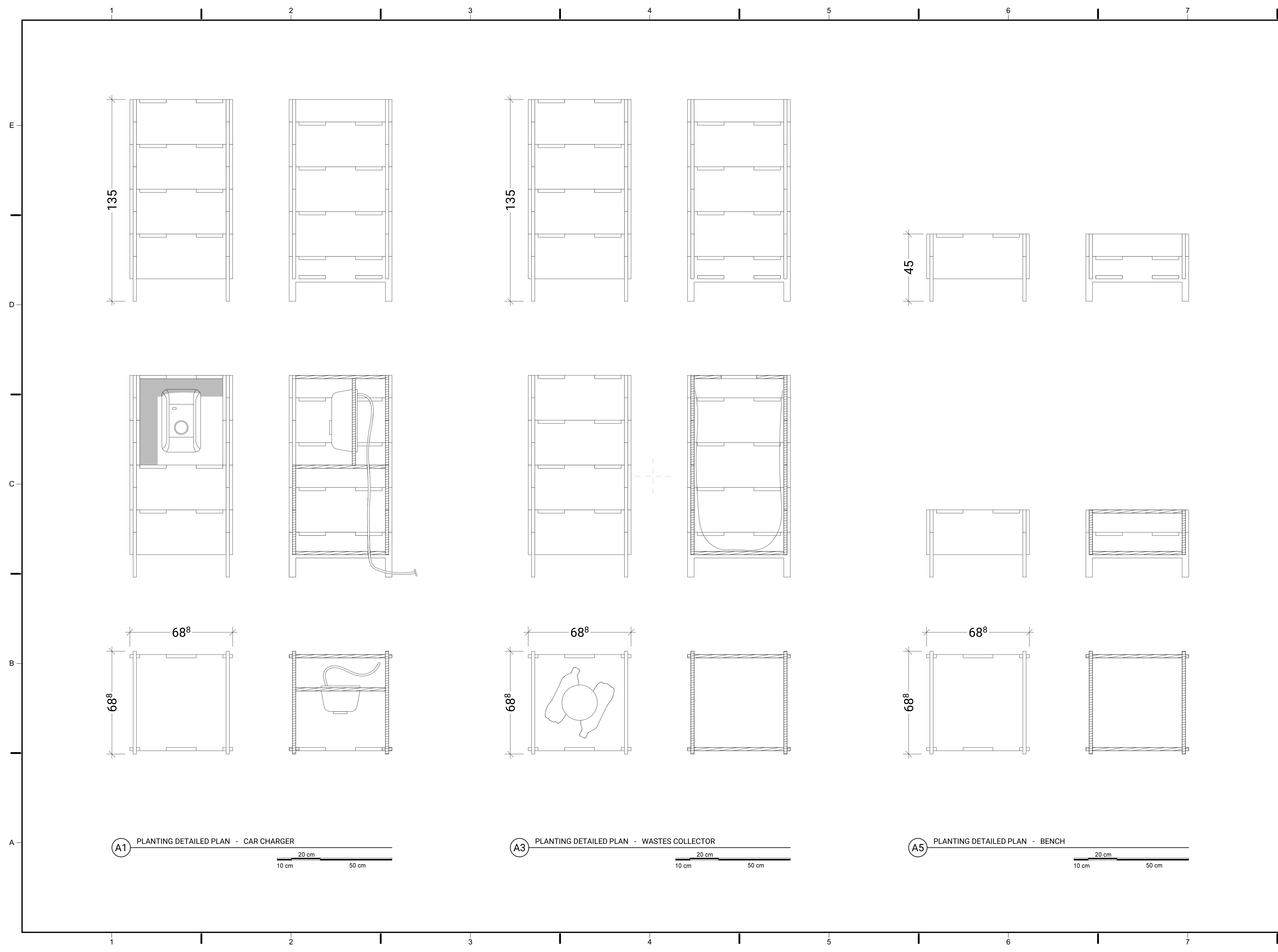
N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE 08
02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:12

PLANTING DETAILS

L-305



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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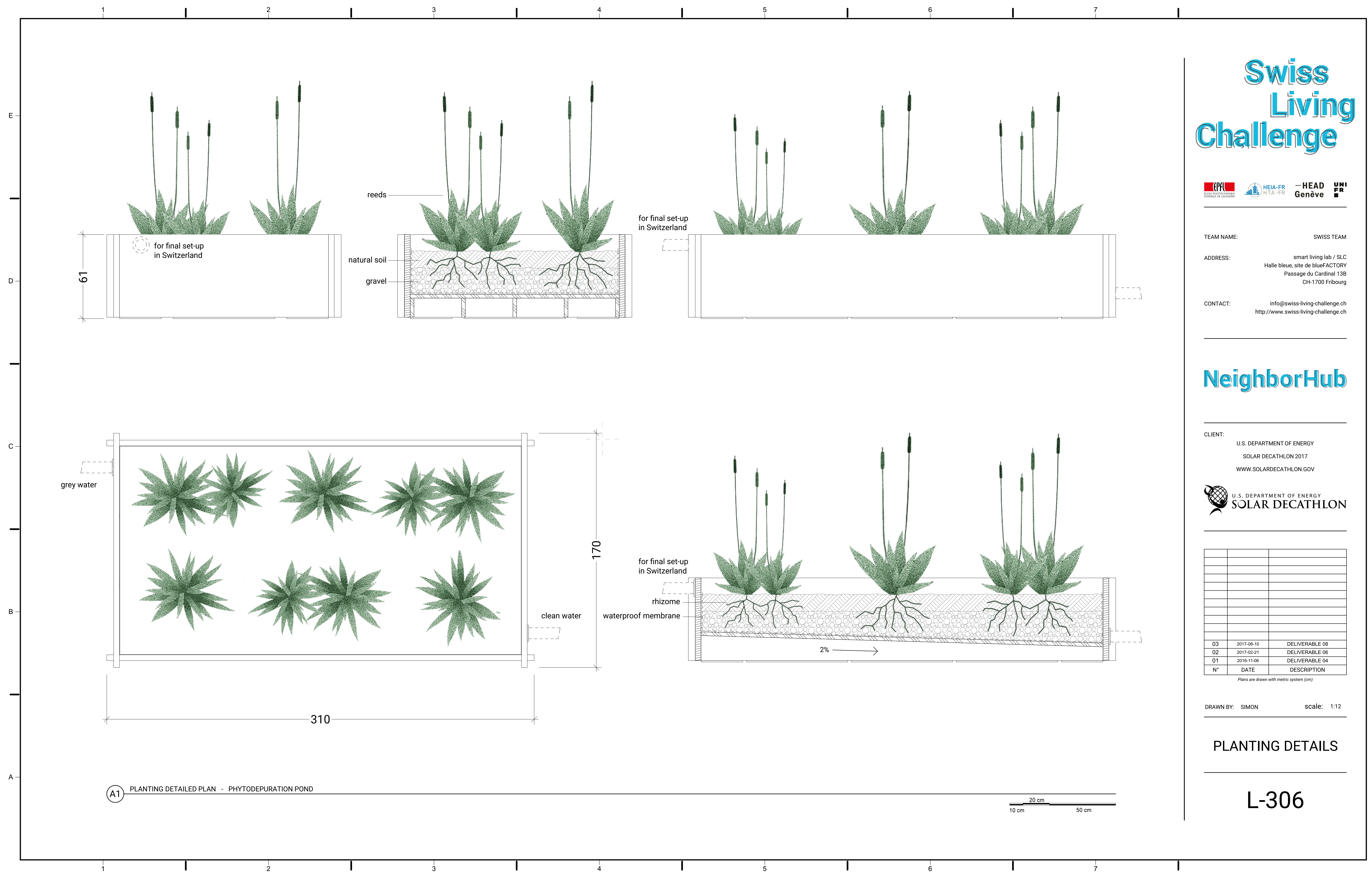
N°	DATE	DESCRIPTION
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:12

PLANTING DETAILS

L-306



A1 PLANTING DETAILED PLAN - PHYTODEPURATION POND

10 cm 20 cm 50 cm

Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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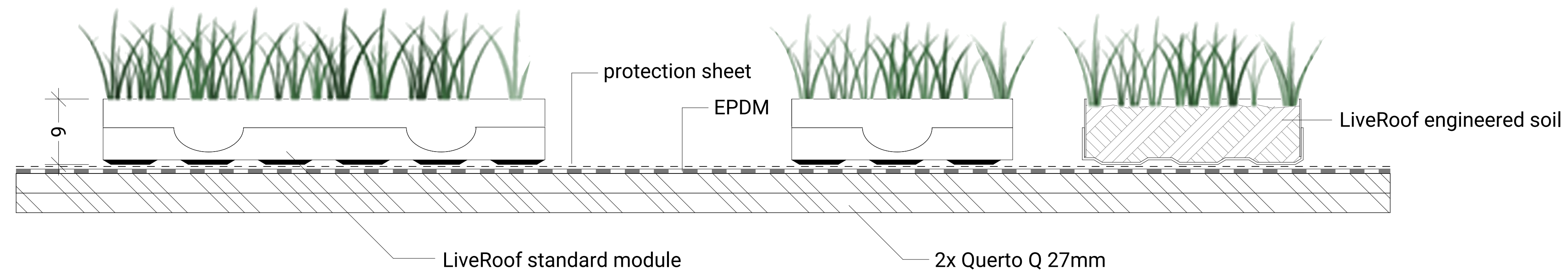
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Plans are drawn with metric system (cm)

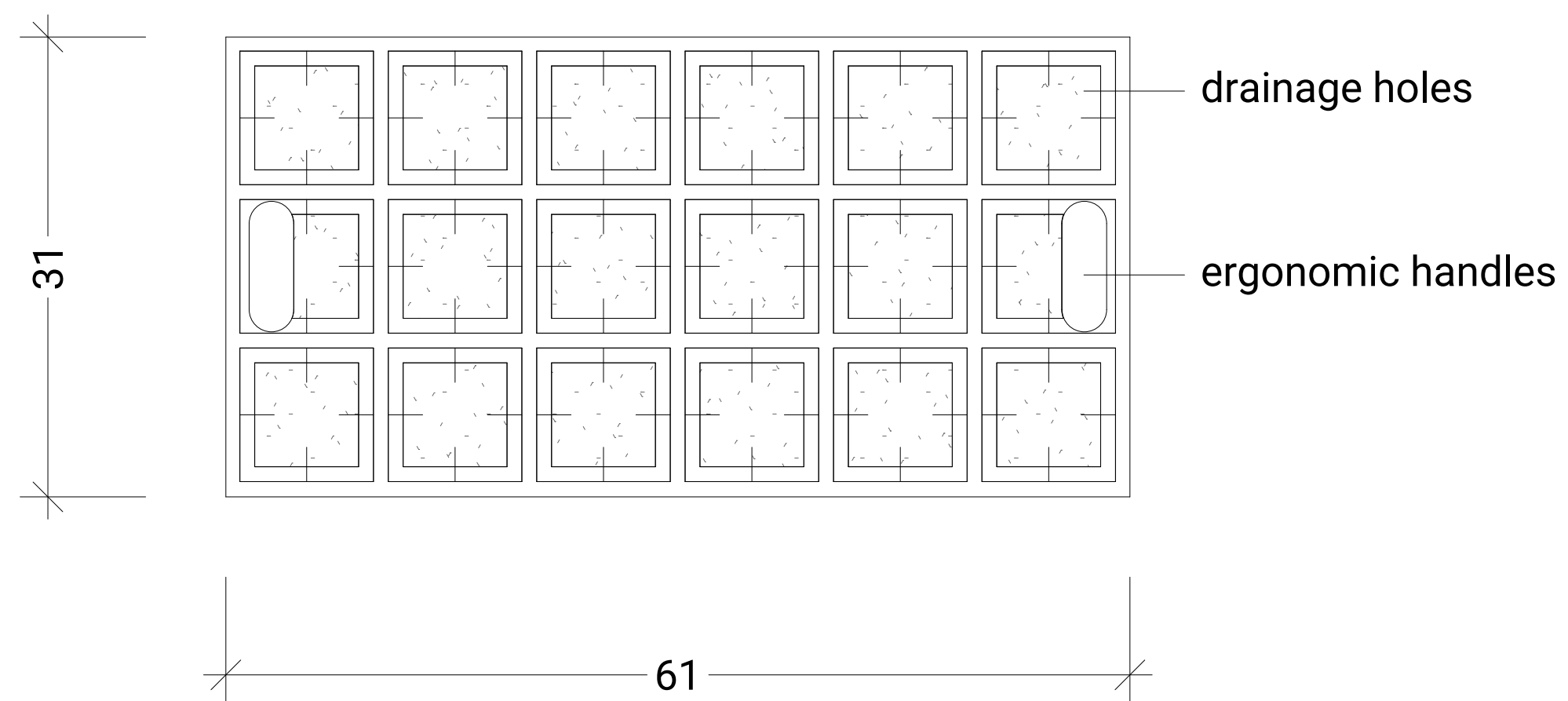
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PLANTING DETAILS


















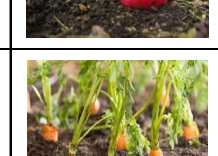
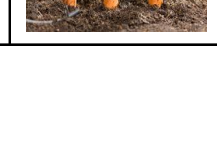
L-307



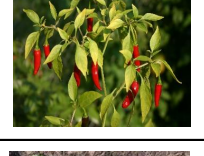








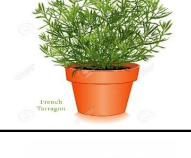










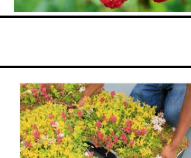

skin roof



A2 PLANTING DETAILED PLAN - LiveRoof vegetation boxes

Reed		
	Reed	
VEGETABLES		
	Cabbage	
	Beetroot	
	Potatoes	
	Broccoli	
	Beans	
	Peas	
	Mustard	
	Spinach	
	Turnips	
	Chives	
	Winter squash	
	Basilic	
	Mint	
	Pumpkin	
	Melon	
	Summer squash	
	Radish	
	Carrot	

	Celery	
	Arugula	
	Hot pepper	
	lamb's lettuce	
	lettuce	
	oignon	
	Tomato	

AROMATICS		
	Licorice	
	Coriander	
	Tarragon	
	Parsley	
	Rosemary	
	Sage	
	Thyme	
	Garlic	
	Chevril	
	Cumin	
BERRIES		
	Strawberry	
	Blueberry	
	Blackberry	
	Raspberry	
GREENROOF		
	LiveRoof Standard Sedum©	

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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03	2017-08-10	DELIVERABLE 08
02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: FARGUES scale: NO

PLANTING SCHEDULE

L-801

Swiss Living Challenge



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CH-1700 Fribourg

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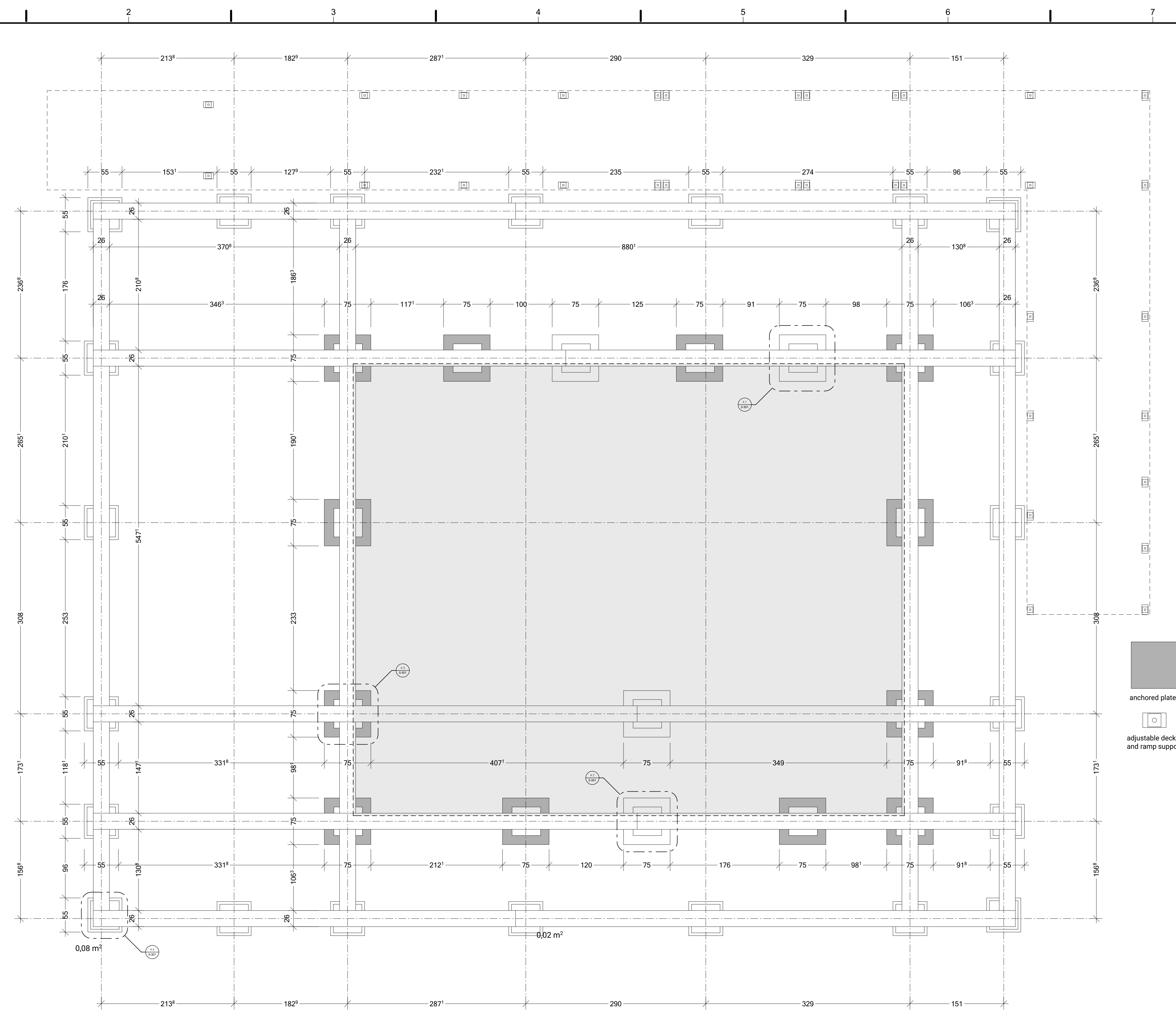
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Plans are drawn with metric system (cm)

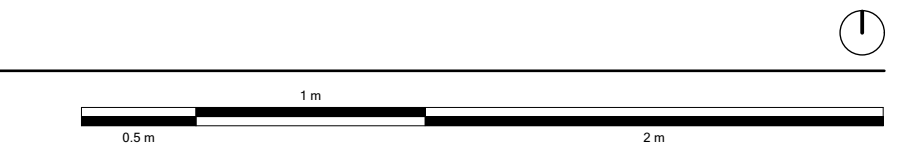
DRAWN BY: SZULE scale: 1:33

FOUNDATIONS PLAN

S-101



A1 FOUNDATIONS PLAN



Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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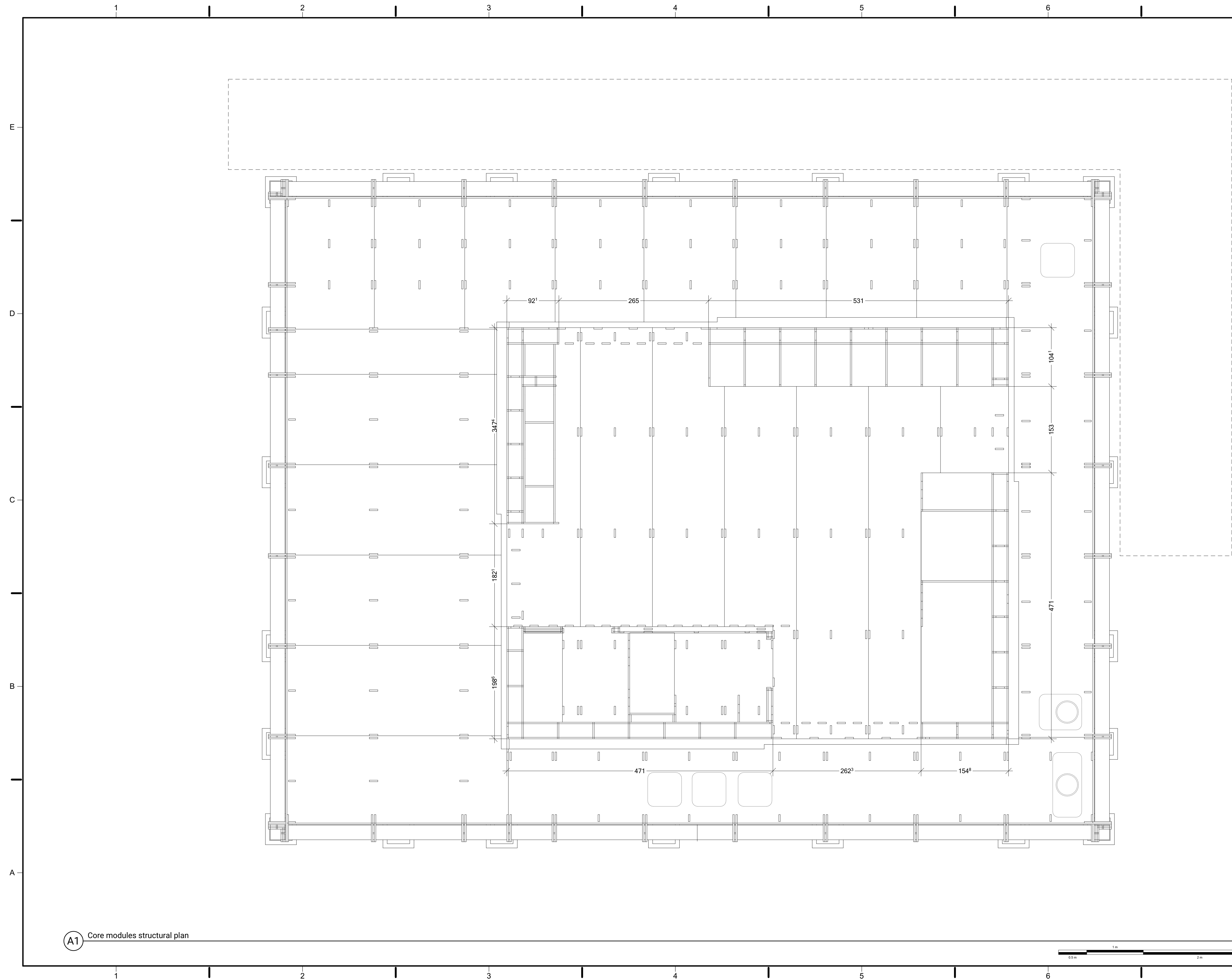
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

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CORE MODULES STRUCTURAL PLAN

S-103



(A1) Core modules structural plan



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

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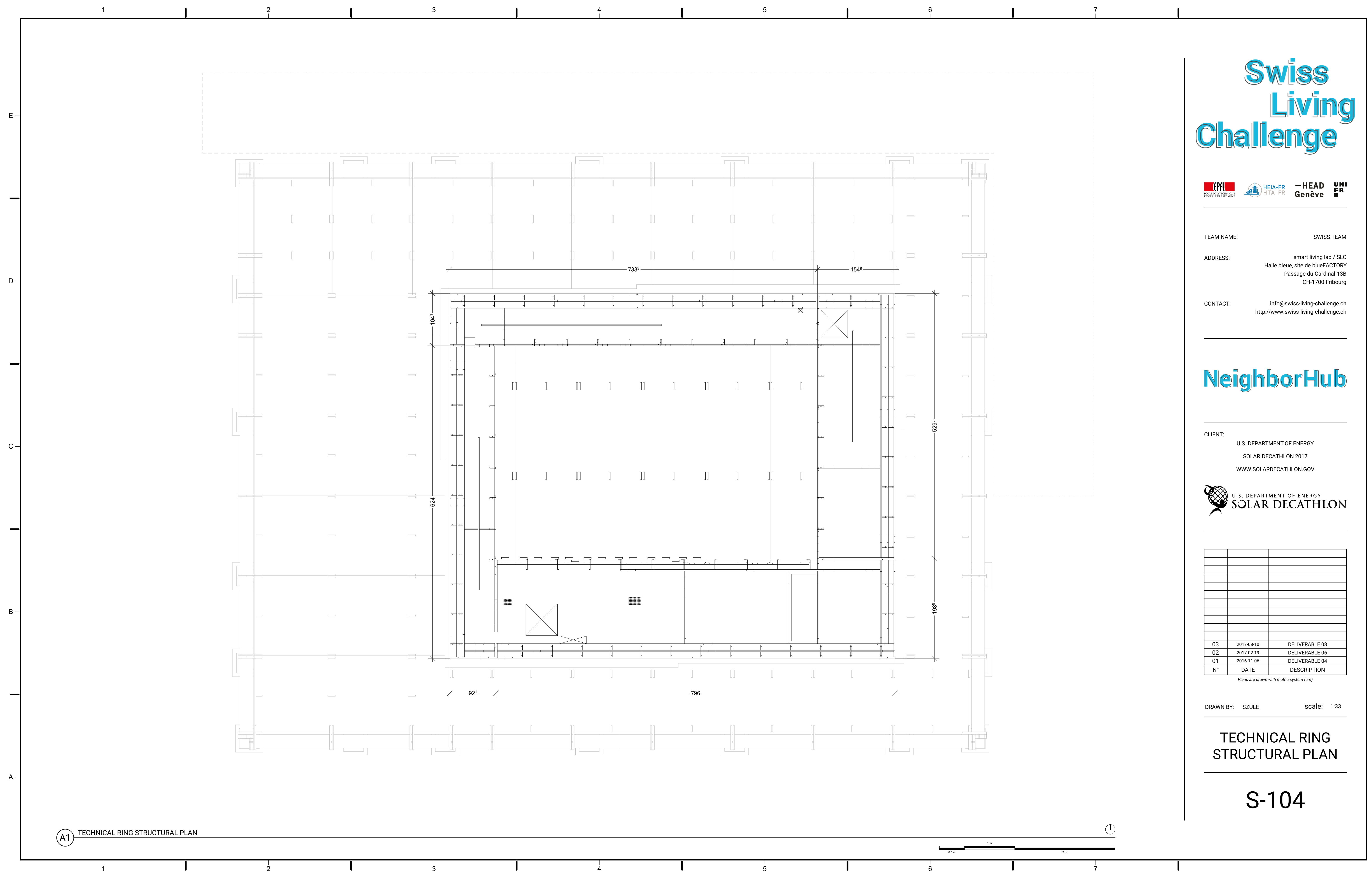
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

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TECHNICAL RING STRUCTURAL PLAN

S-104



(A1) TECHNICAL RING STRUCTURAL PLAN

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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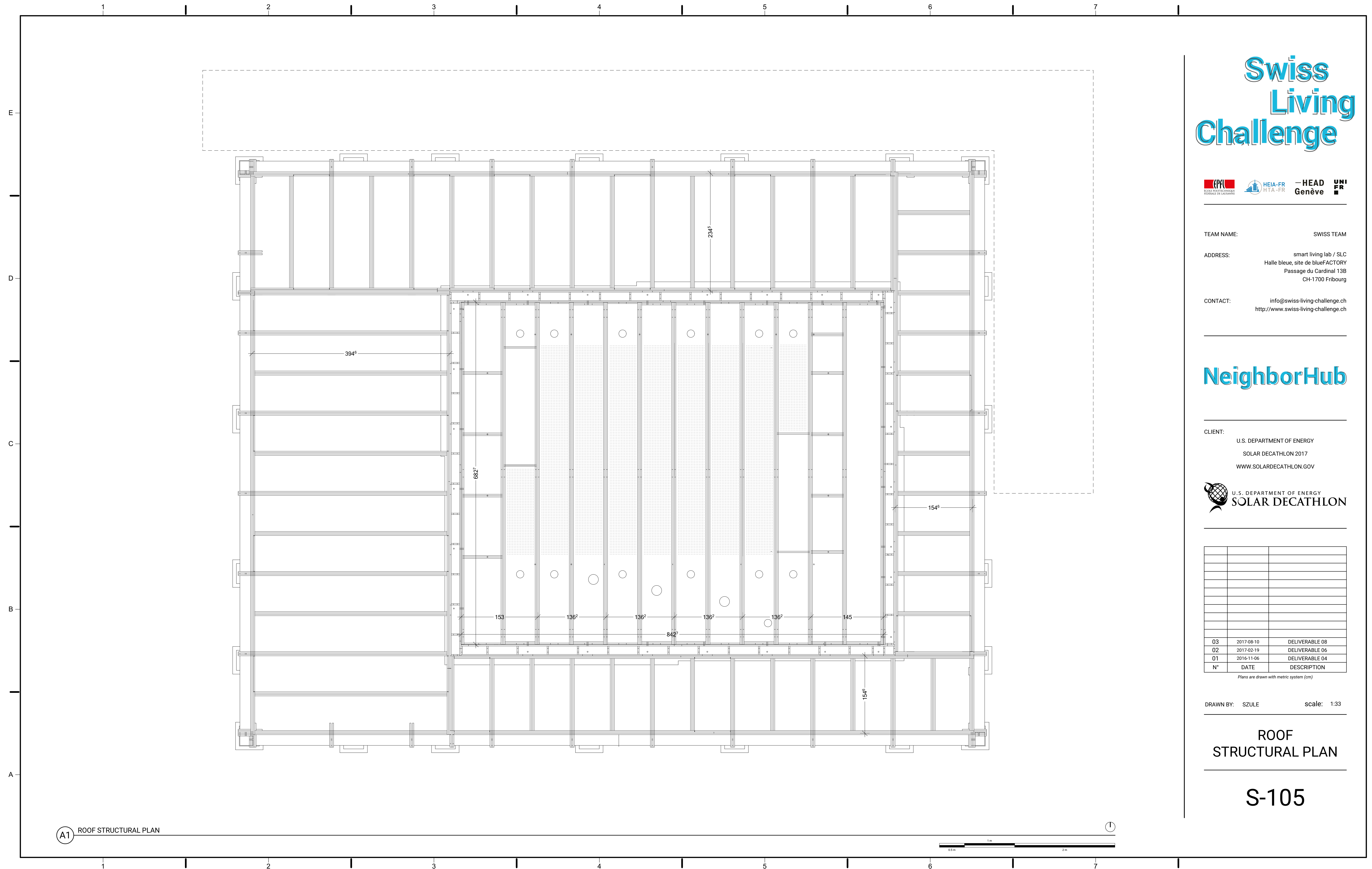
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SZULE scale: 1:33

ROOF STRUCTURAL PLAN

S-105



(A1) ROOF STRUCTURAL PLAN

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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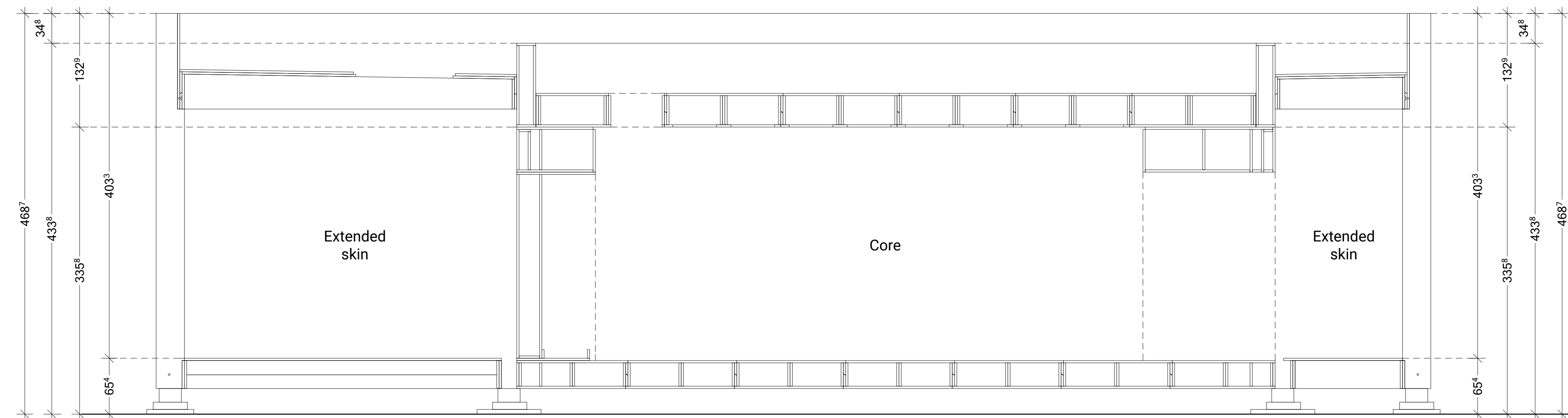
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

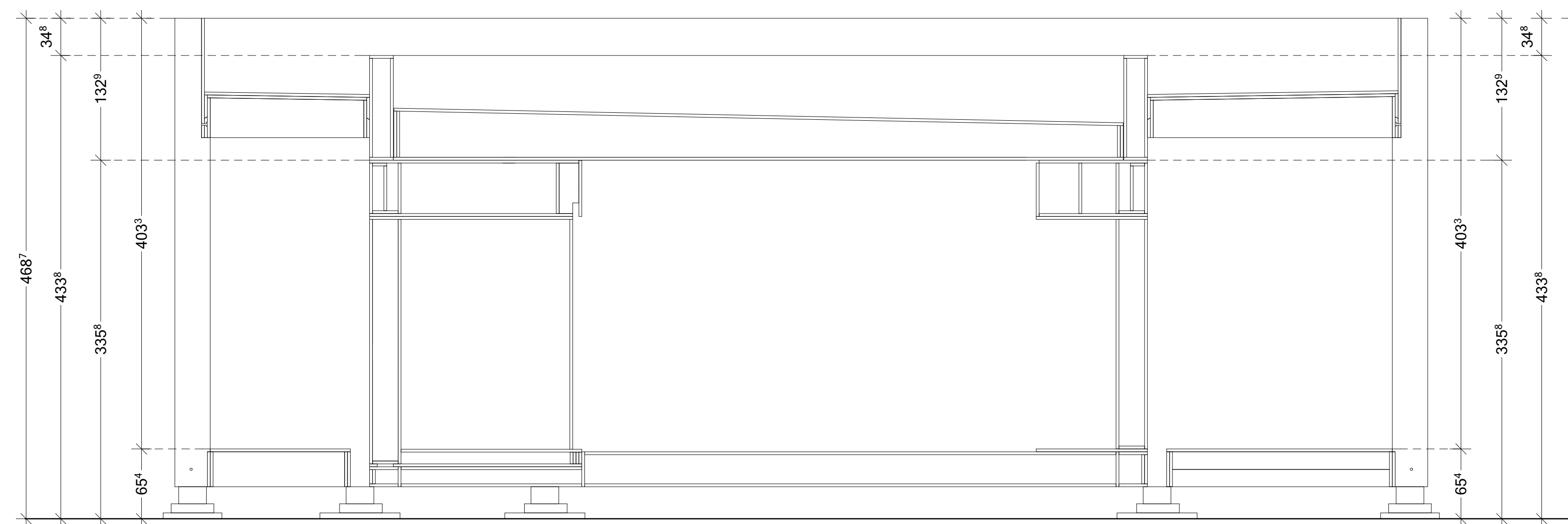
DRAWN BY: SZULE scale: 1:33

BUILDING SECTIONS

S-201



C1 EAST WEST SECTION



A1 NORTH SOUTH SECTIONS



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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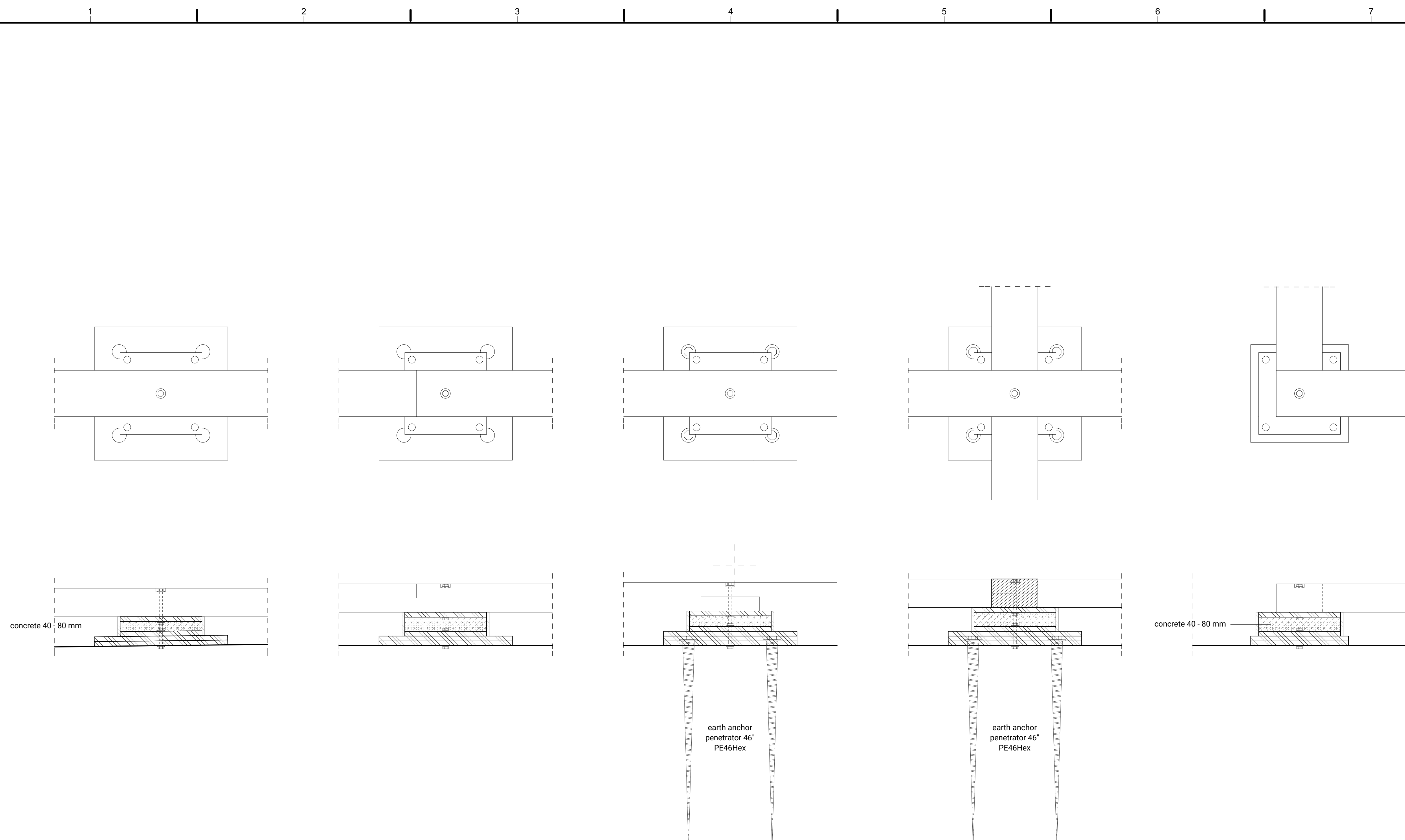
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:12

FOUNDATIONS DETAILS

S-301



A1 FOUNDATIONS DETAILS - slope adaptation

A2 FOUNDATIONS DETAILS - large plate without anchor

A3 FOUNDATIONS DETAILS - large plate with anchor

A5 FOUNDATIONS DETAILS - large plate with anchor

A6 FOUNDATIONS DETAILS - thin plate corner

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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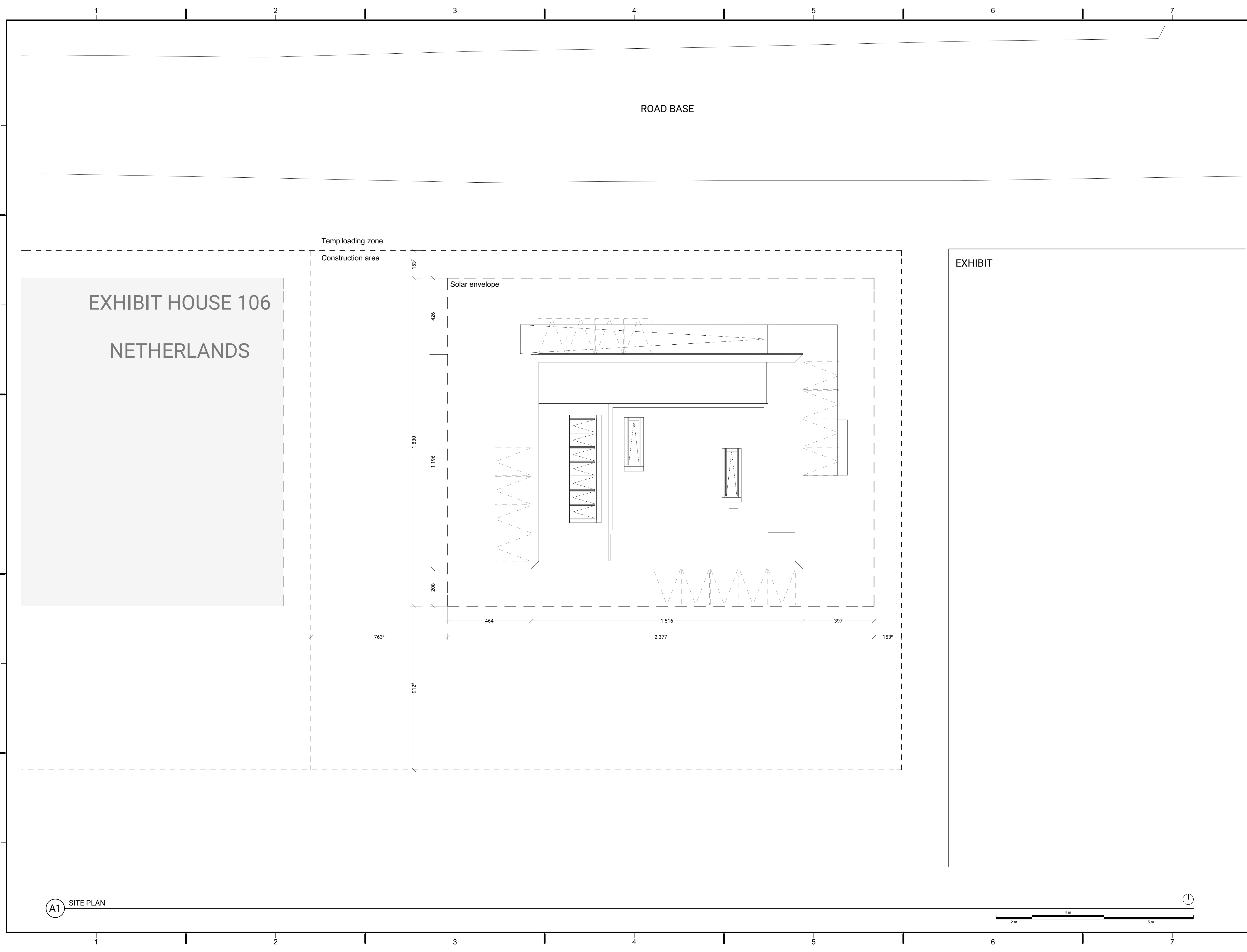
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04	2016-10-28	MODIFICATIONS SEMAINE 44
03	2016-10-24	MODIFICATIONS SEMAINE 43
02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:100

SITE PLAN

A-100



(A1) SITE PLAN

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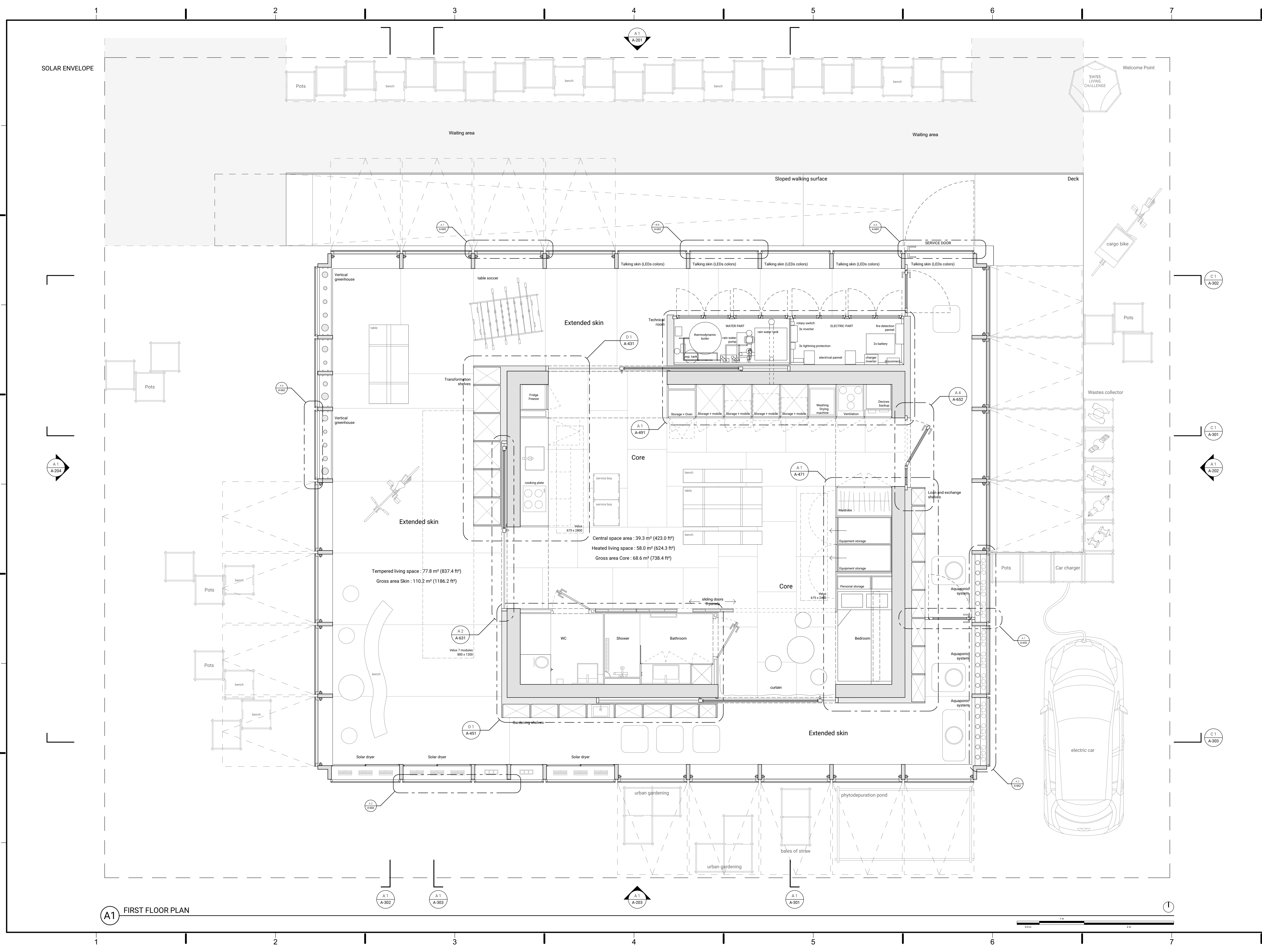
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02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

FIRST FLOOR PLAN

A-101



A1 FIRST FLOOR PLAN

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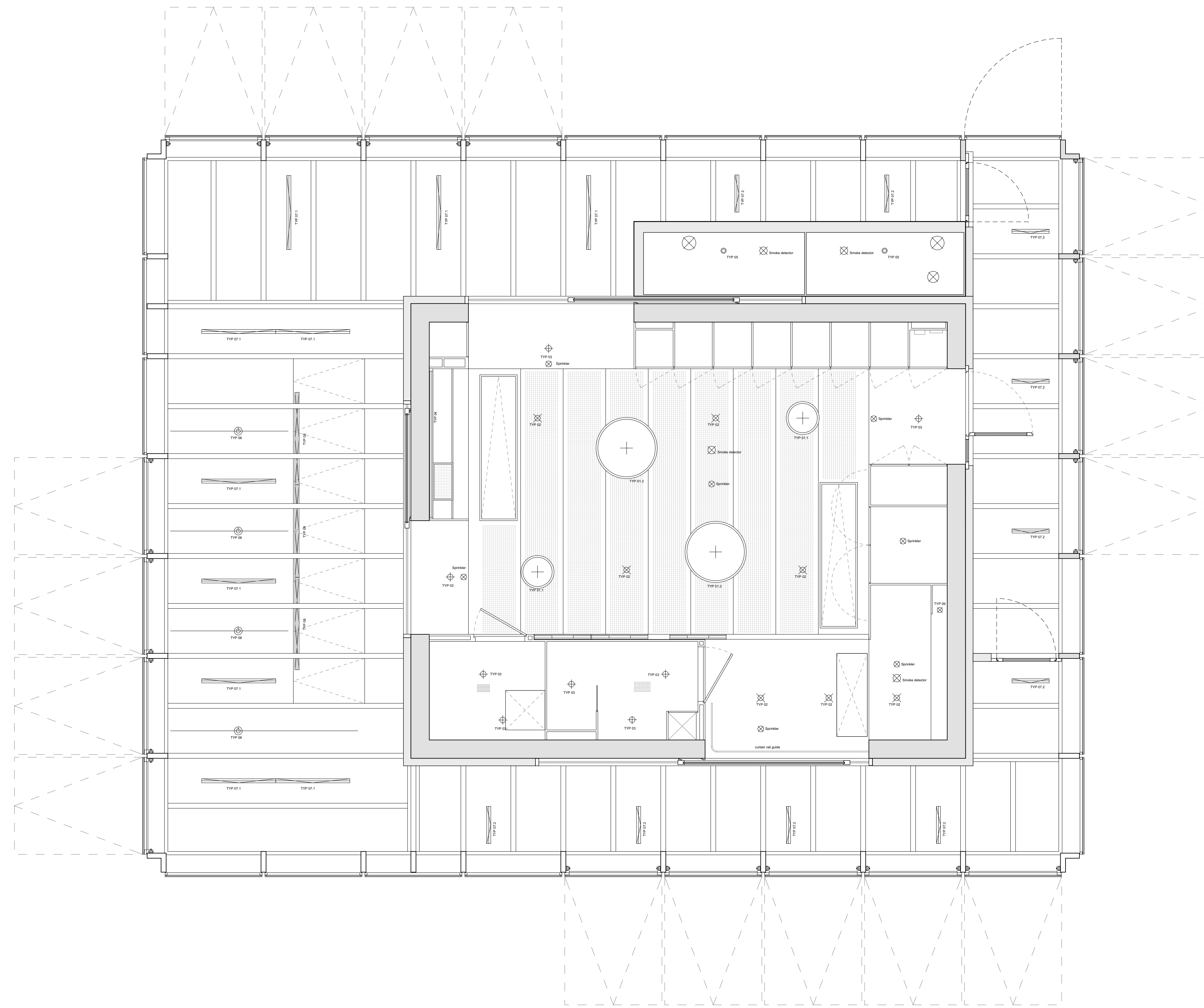
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03	2016-10-24	MODIFICATIONS SEMAINE 43
02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

REFLECTED CEILING PLAN

A-102



(A1) REFLECTED CEILING PLAN



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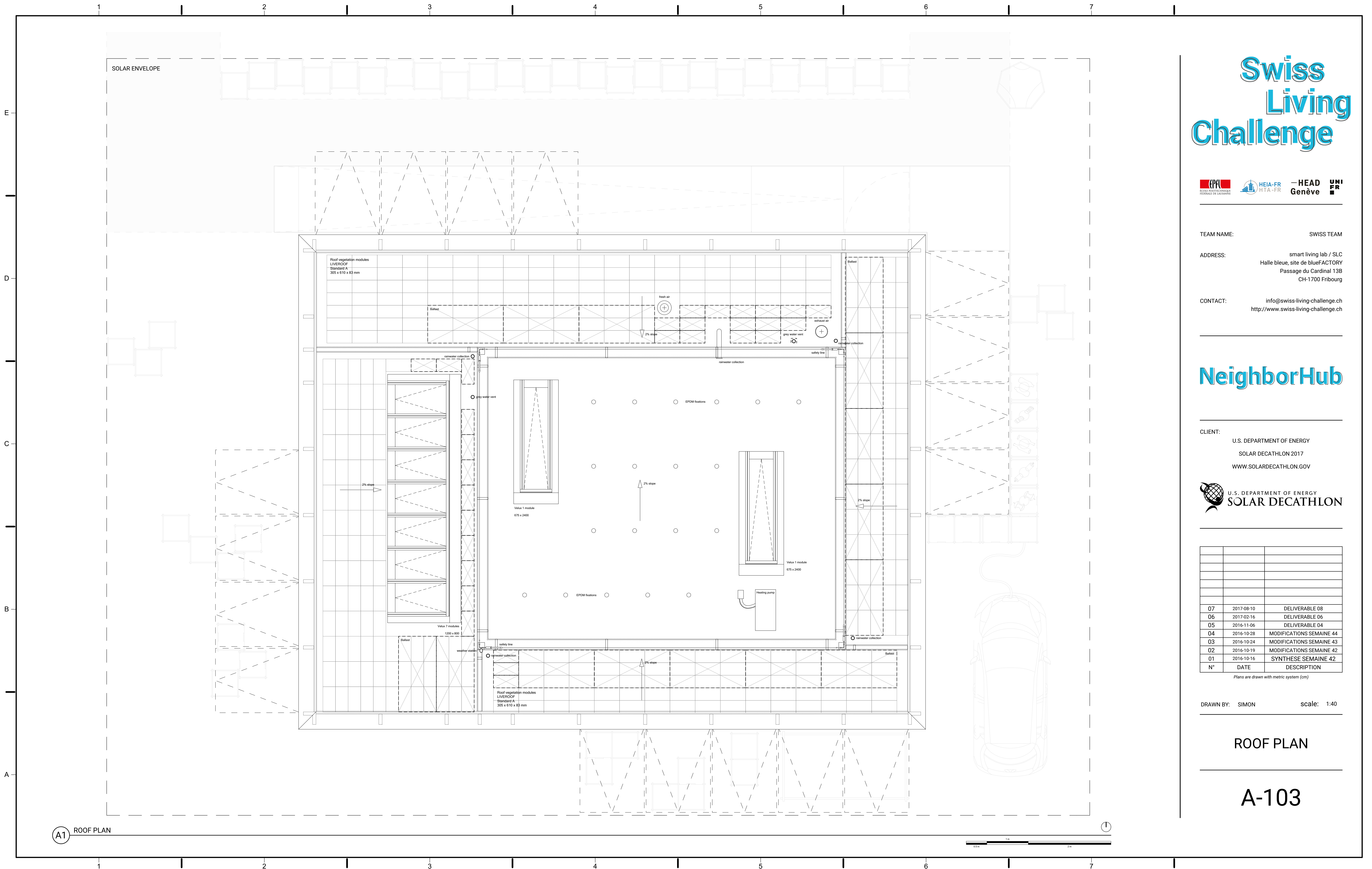
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02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

ROOF PLAN

A-103



(A1) ROOF PLAN



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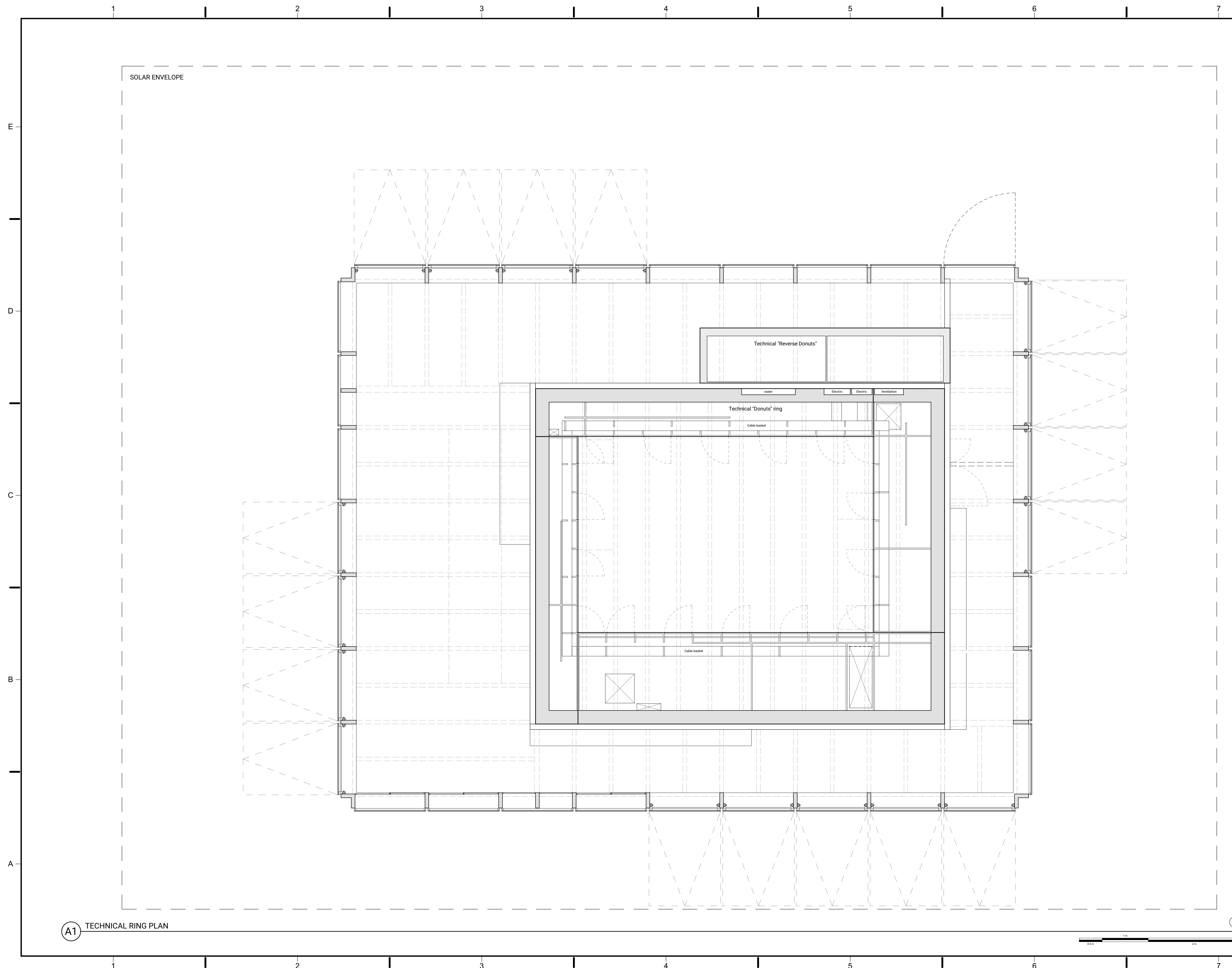
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02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

TECHNICAL RING PLAN

A-104



(A1) TECHNICAL RING PLAN

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02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

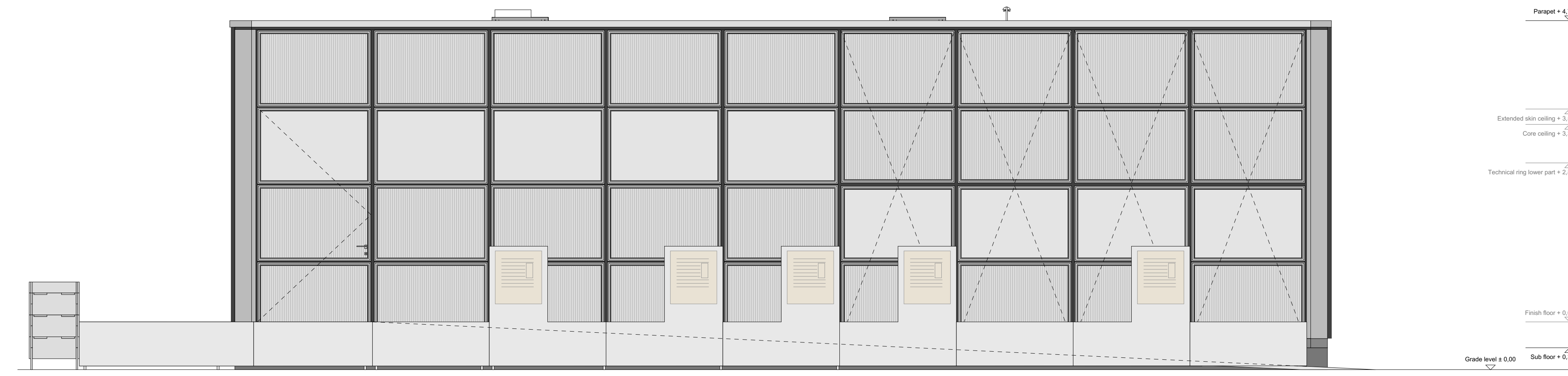
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EXTERIOR ELEVATIONS

A-201



C1 NORTH ELEVATION - OPEN SKIN DOORS CONFIGURATION



A1 NORTH ELEVATION - CLOSED SKIN DOORS CONFIGURATION

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01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

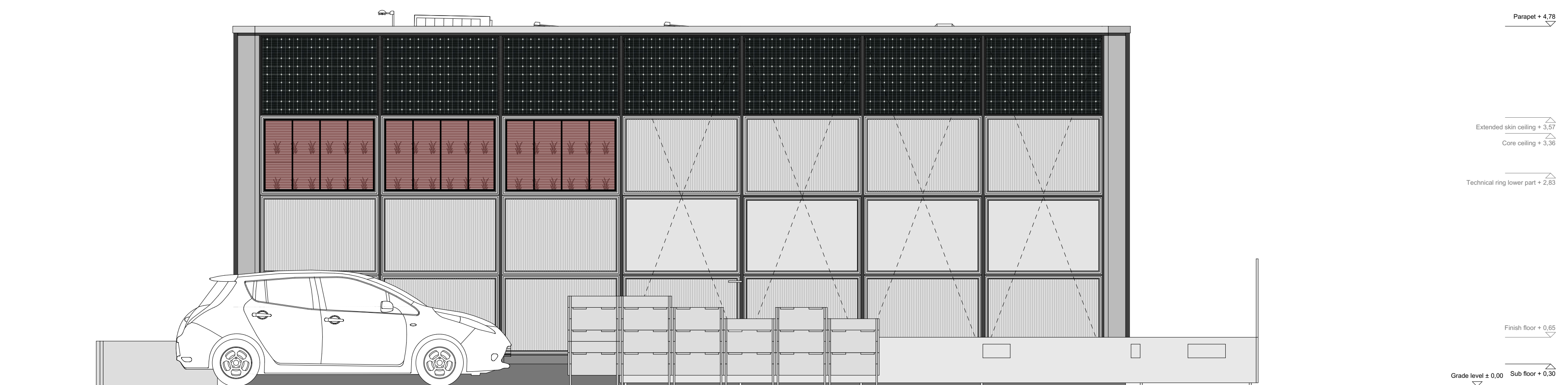
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EXTERIOR ELEVATIONS

A-202



C1 EAST ELEVATION - OPEN SKIN DOORS CONFIGURATION



A1 EAST ELEVATION - CLOSED SKIN DOORS CONFIGURATION

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

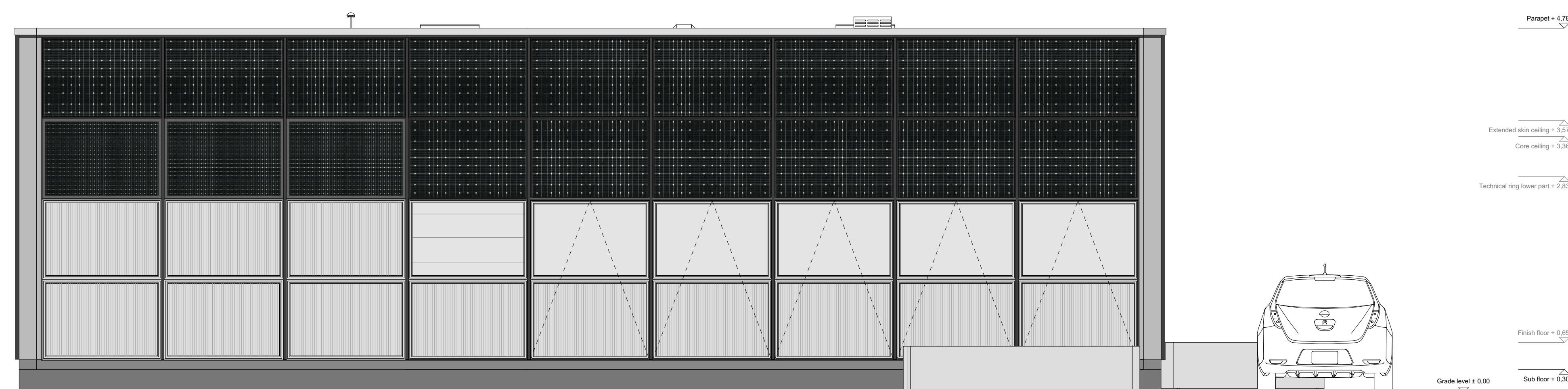
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EXTERIOR ELEVATIONS

A-203



C1 SOUTH ELEVATION - OPEN SKIN DOORS CONFIGURATION



A1 SOUTH ELEVATION - CLOSED SKIN DOORS CONFIGURATION



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Passage du Cardinal 13B
CH-1700 Fribourg

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01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

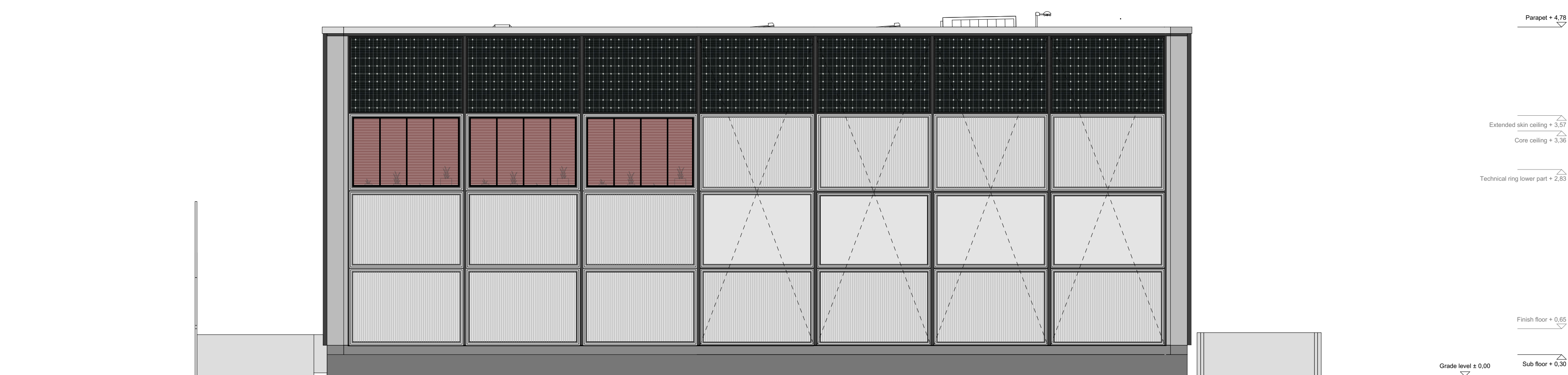
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EXTERIOR ELEVATIONS

A-204



C1 WEST ELEVATION - OPEN SKIN DOORS CONFIGURATION



A1 WEST ELEVATION - CLOSED SKIN DOORS CONFIGURATION

Swiss Living Challenge



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

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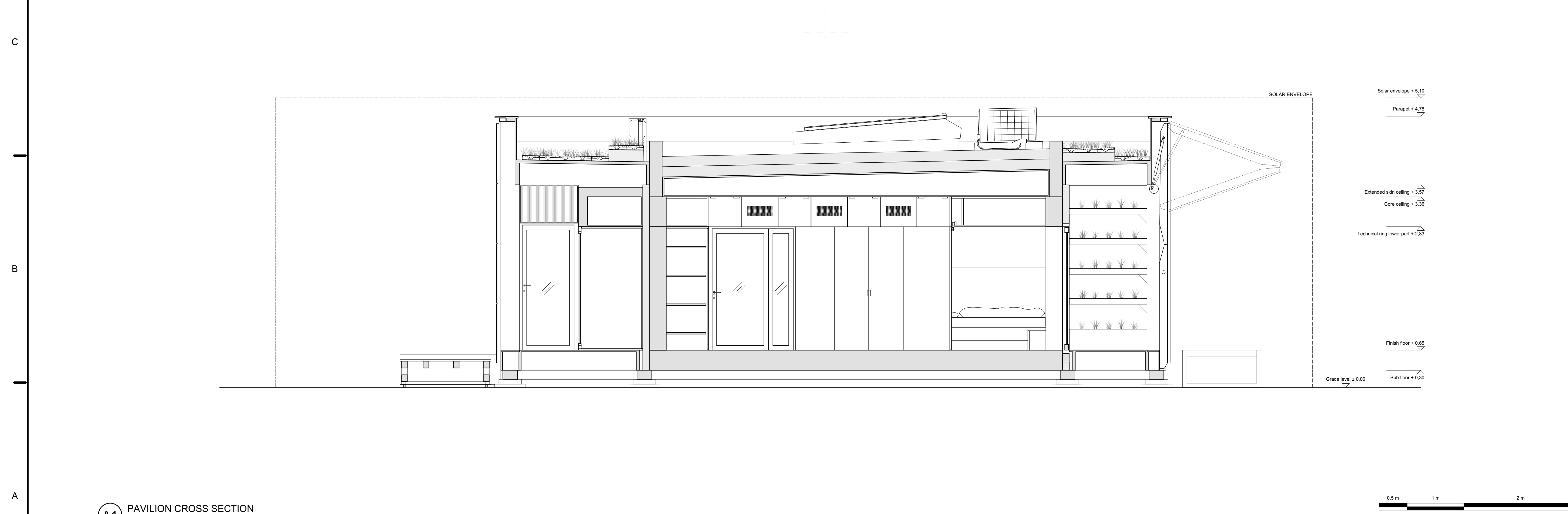
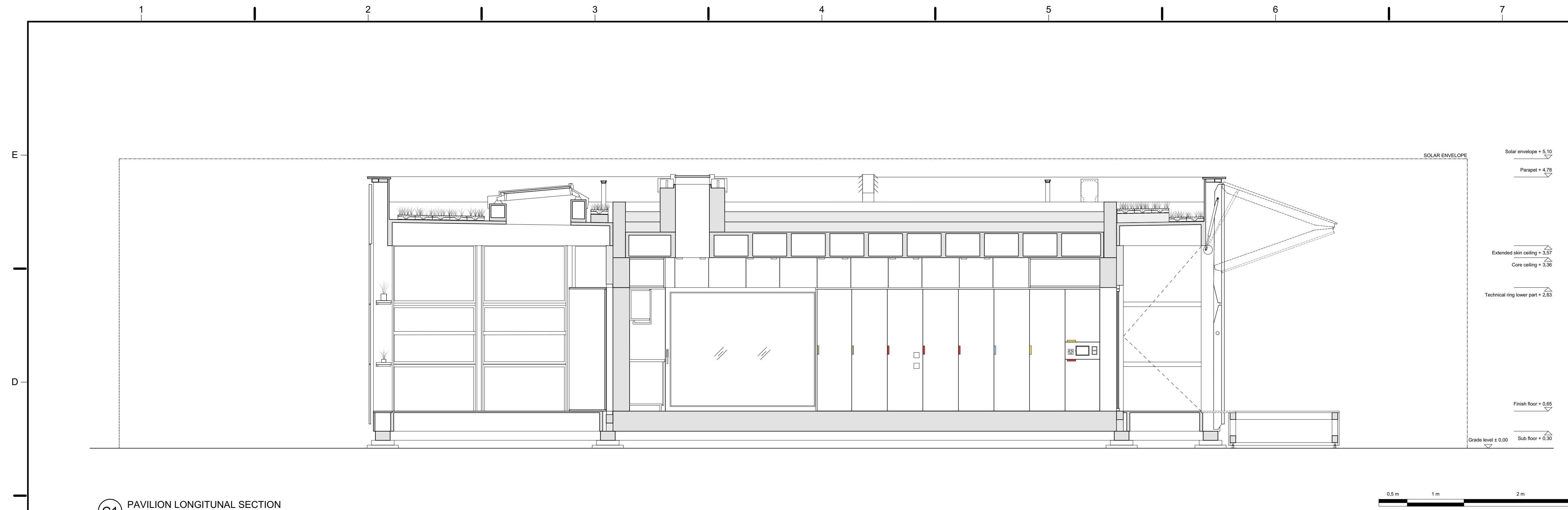
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02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: JACQUET scale: 1:40

BUILDING SECTIONS

A-301



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
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CH-1700 Fribourg

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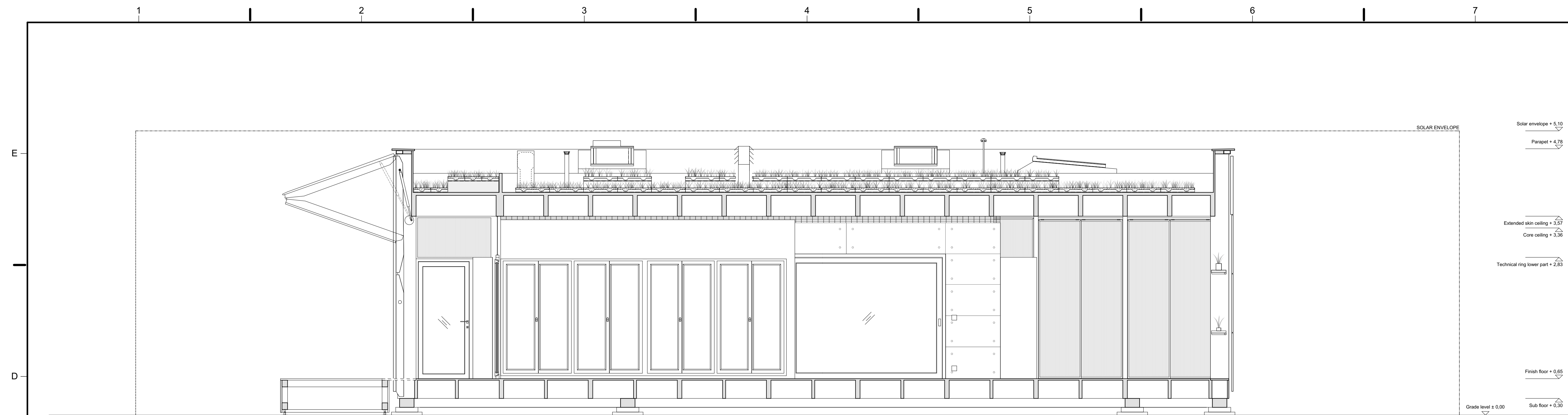
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01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

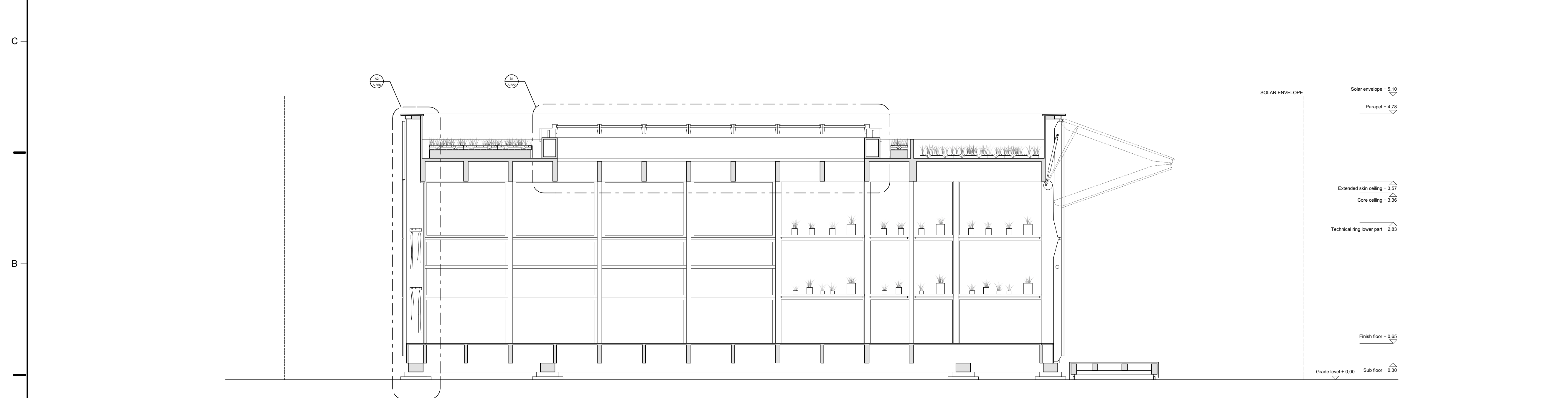
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BUILDING SECTIONS

A-302



(C1) EXTENDED SKIN LONGITUNAL SECTION



(A1) EXTENDED SKIN CROSS SECTION



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Passage du Cardinal 13B
CH-1700 Fribourg

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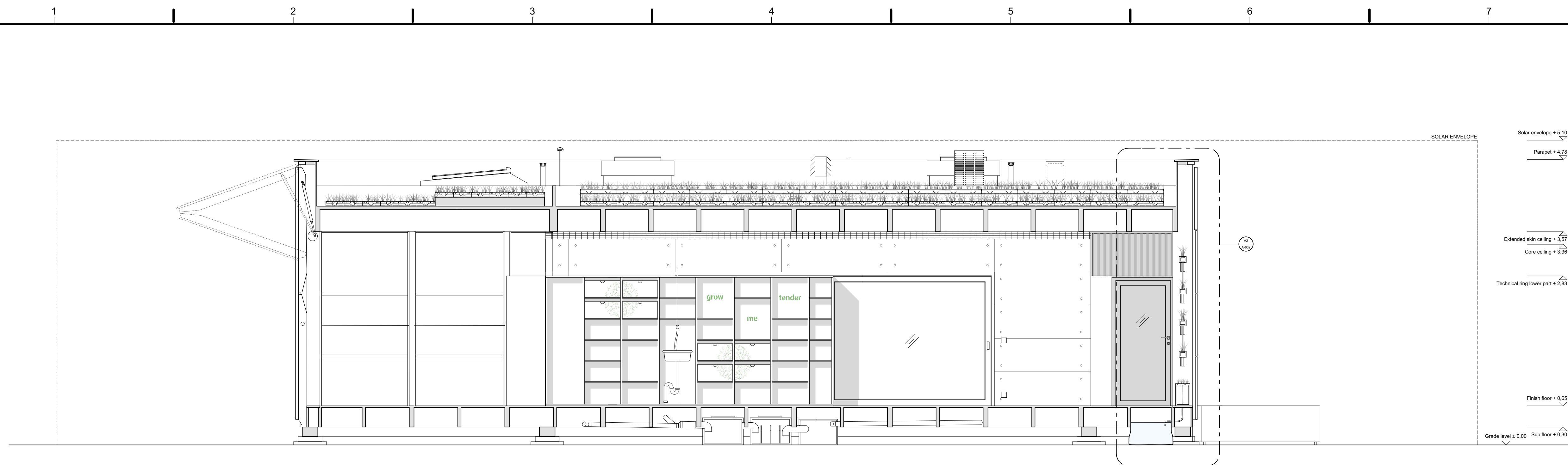
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Plans are drawn with metric system (cm)

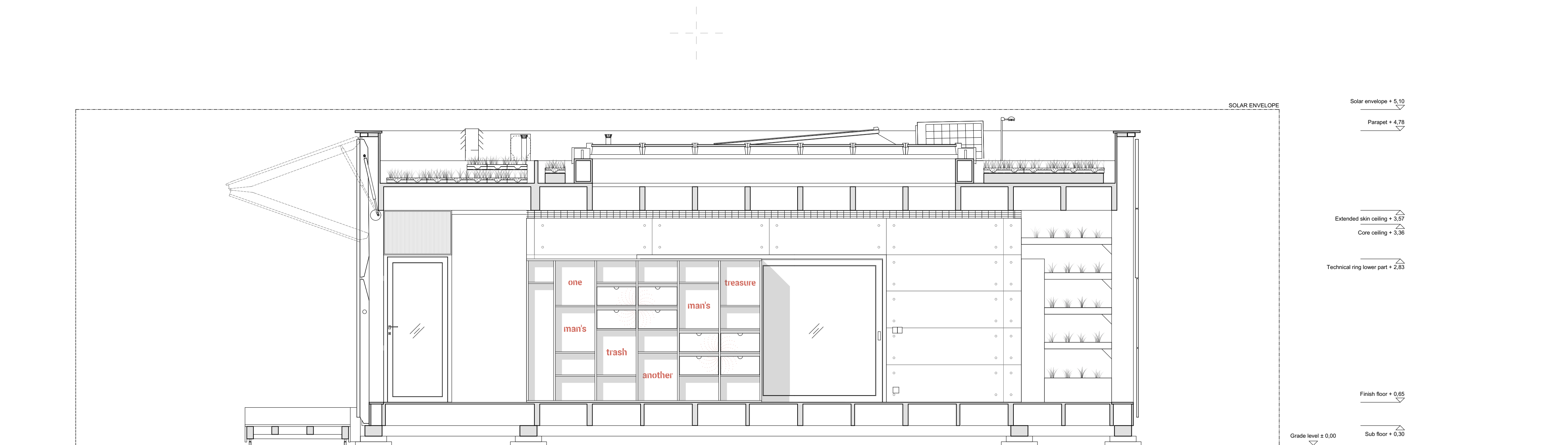
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BUILDING SECTIONS

A-303



C1 EXTENDED SKIN LONGITUNAL SECTION



A1 EXTENDED SKIN CROSS SECTION

Swiss Living Challenge



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Passage du Cardinal 13B
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Plans are drawn with metric system (cm)

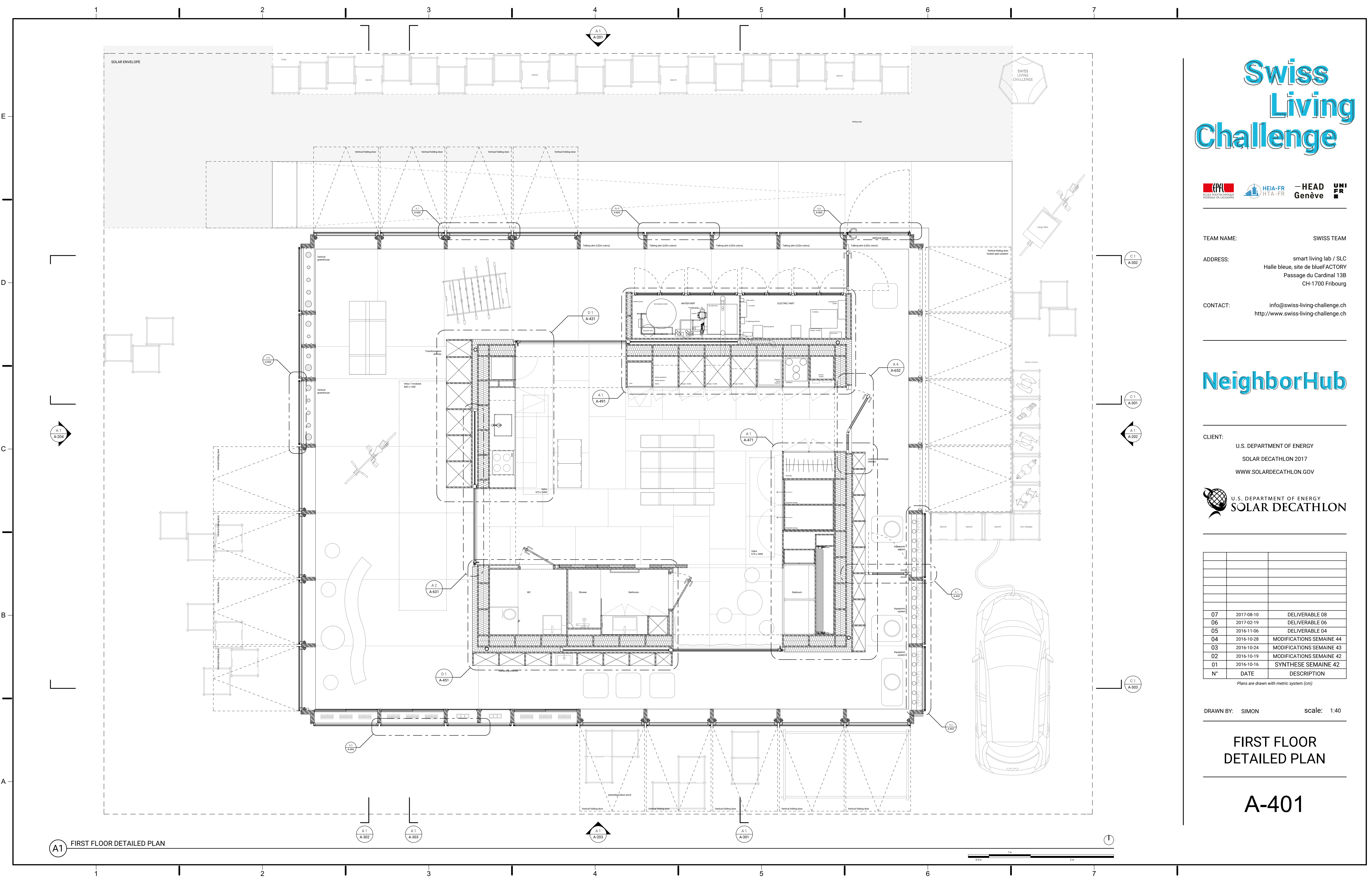
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FIRST FLOOR DETAILED PLAN

A-401

A1 FIRST FLOOR DETAILED PLAN

A1 A-202 A1 A-303 A1 A-203 A1 A-301



Swiss Living Challenge



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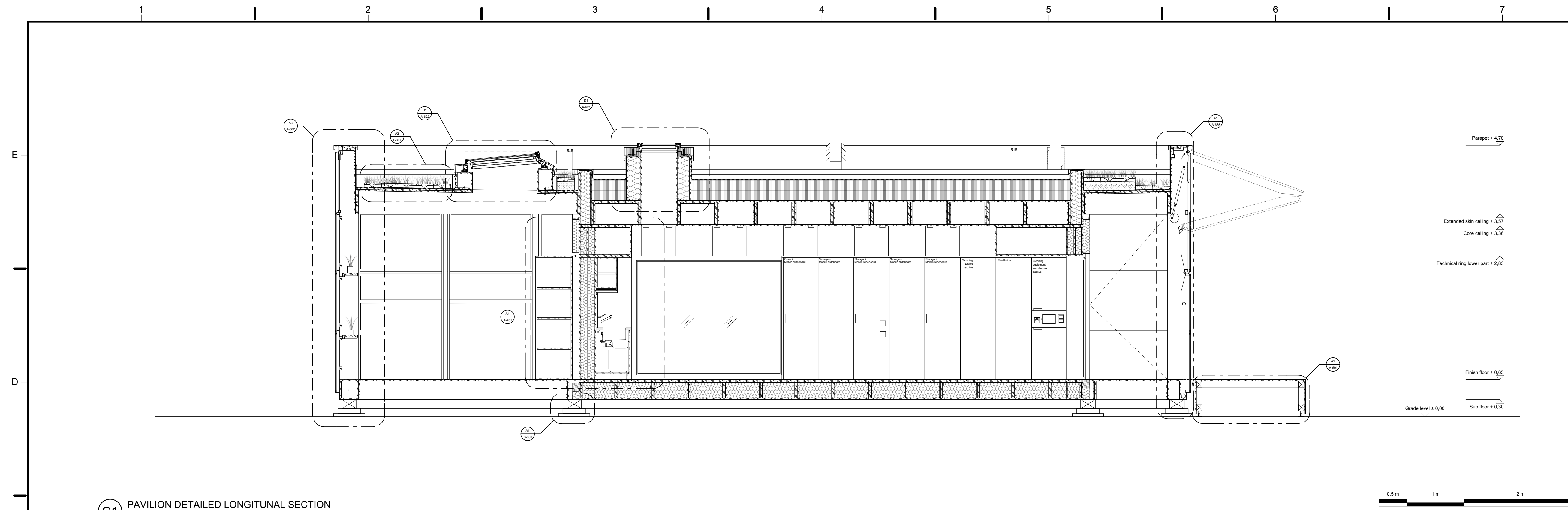
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Plans are drawn with metric system (cm)

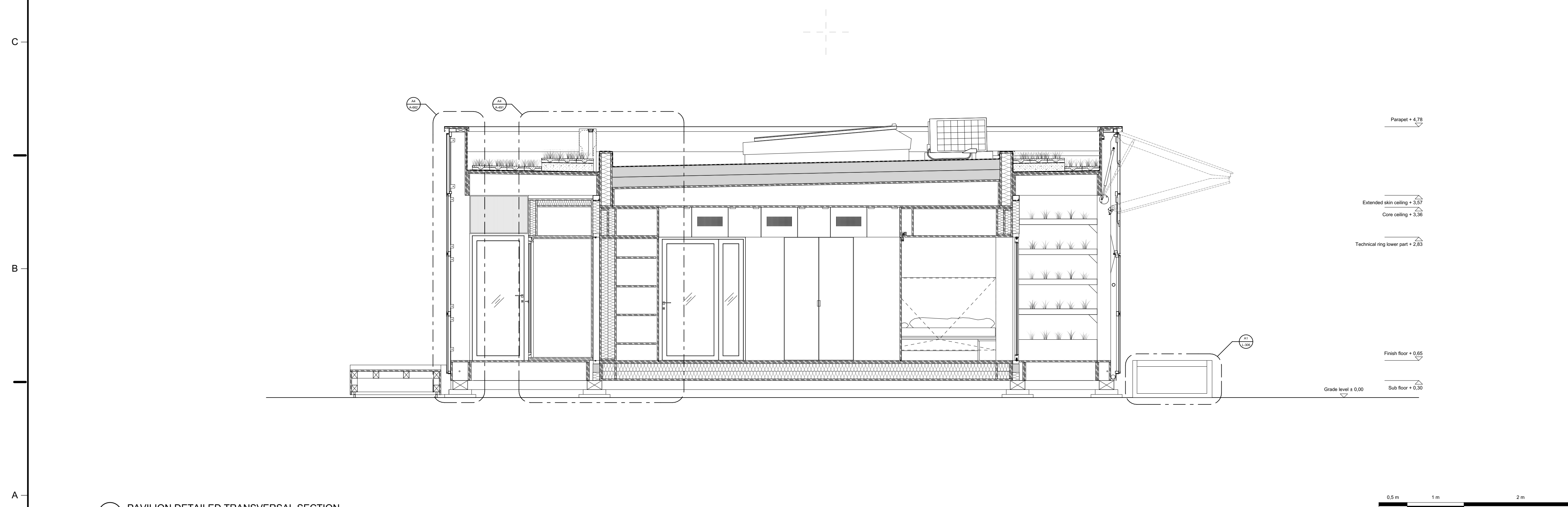
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DETAILED BUILDING SECTIONS

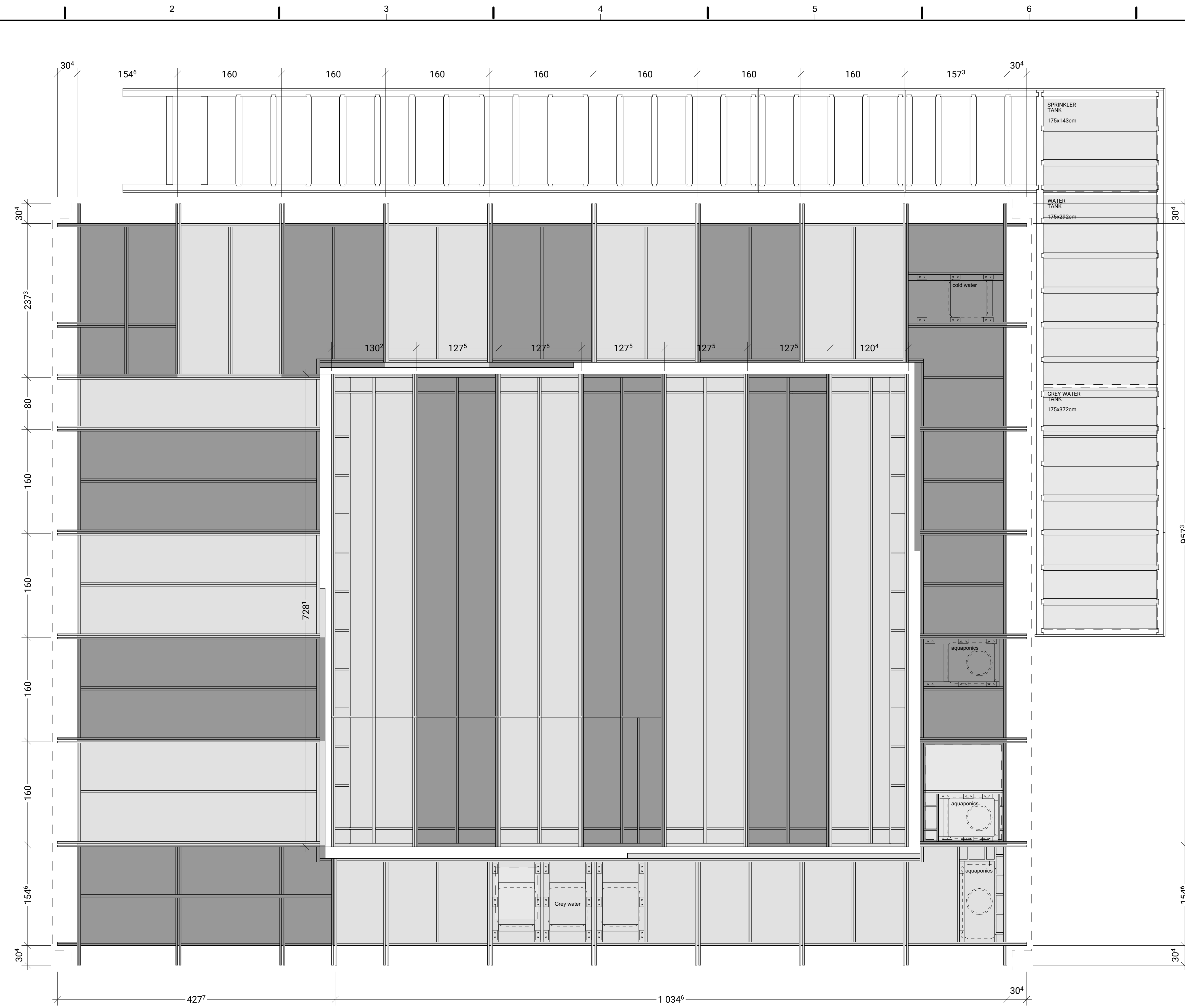
A-402



C1 PAVILION DETAILED LONGITUNAL SECTION



A1 PAVILION DETAILED TRANSVERSAL SECTION



A1 FLOOR MODULE DETAILS

Swiss Living Challenge



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 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
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02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:33

FLOOR MODULE DETAILS

A-411

Swiss Living Challenge



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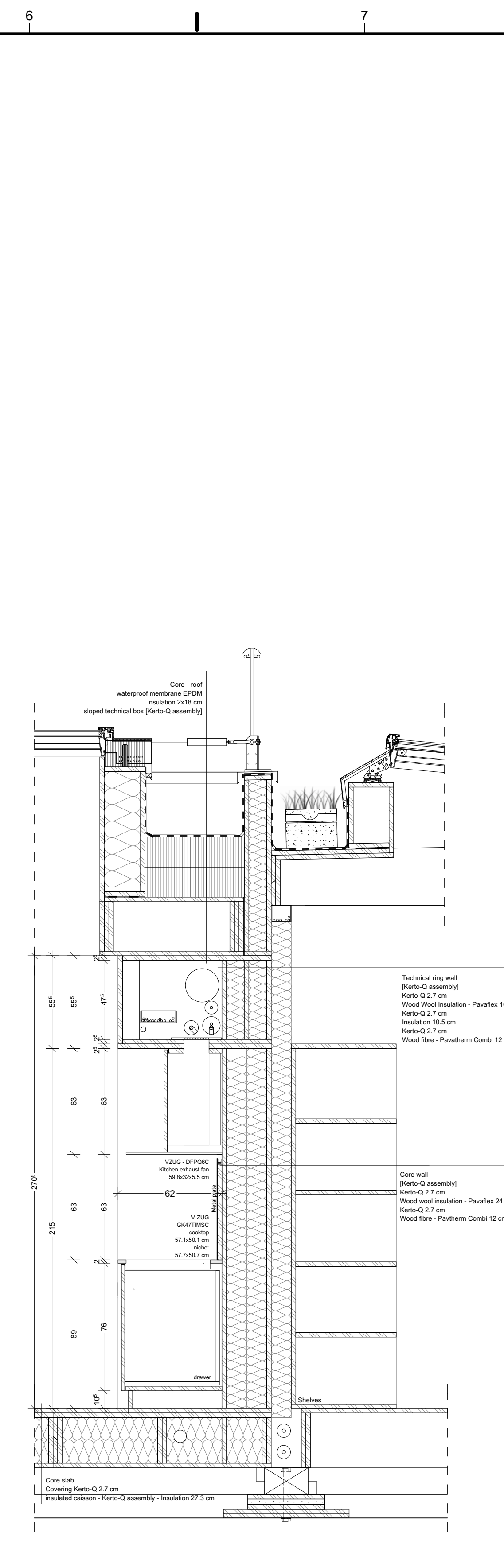
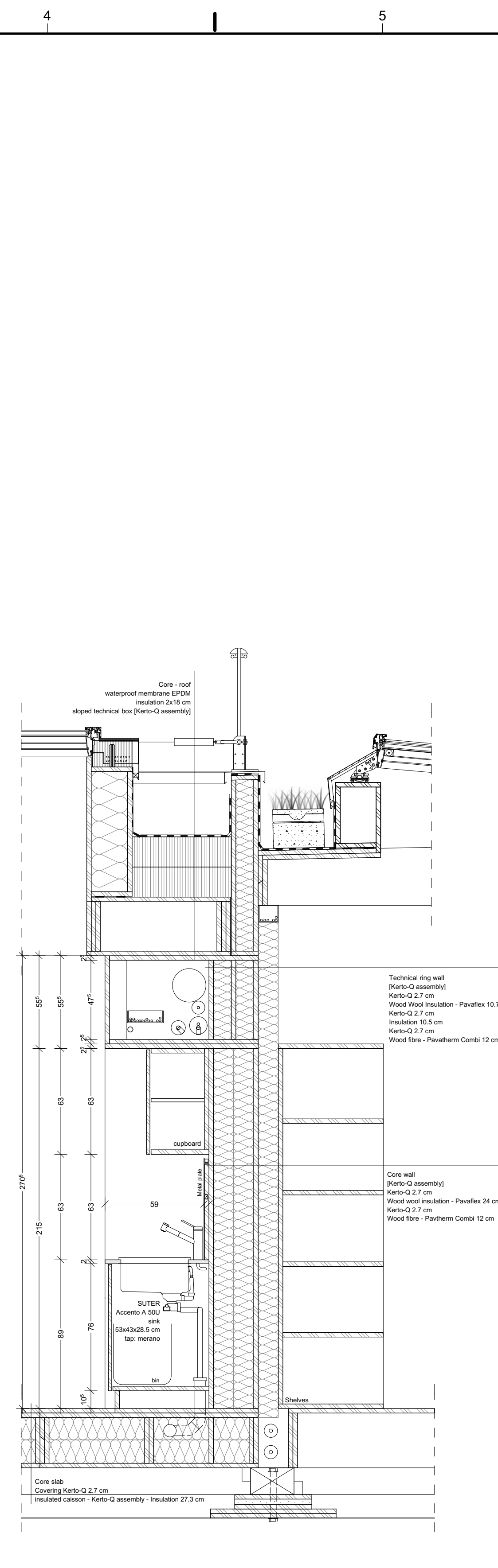
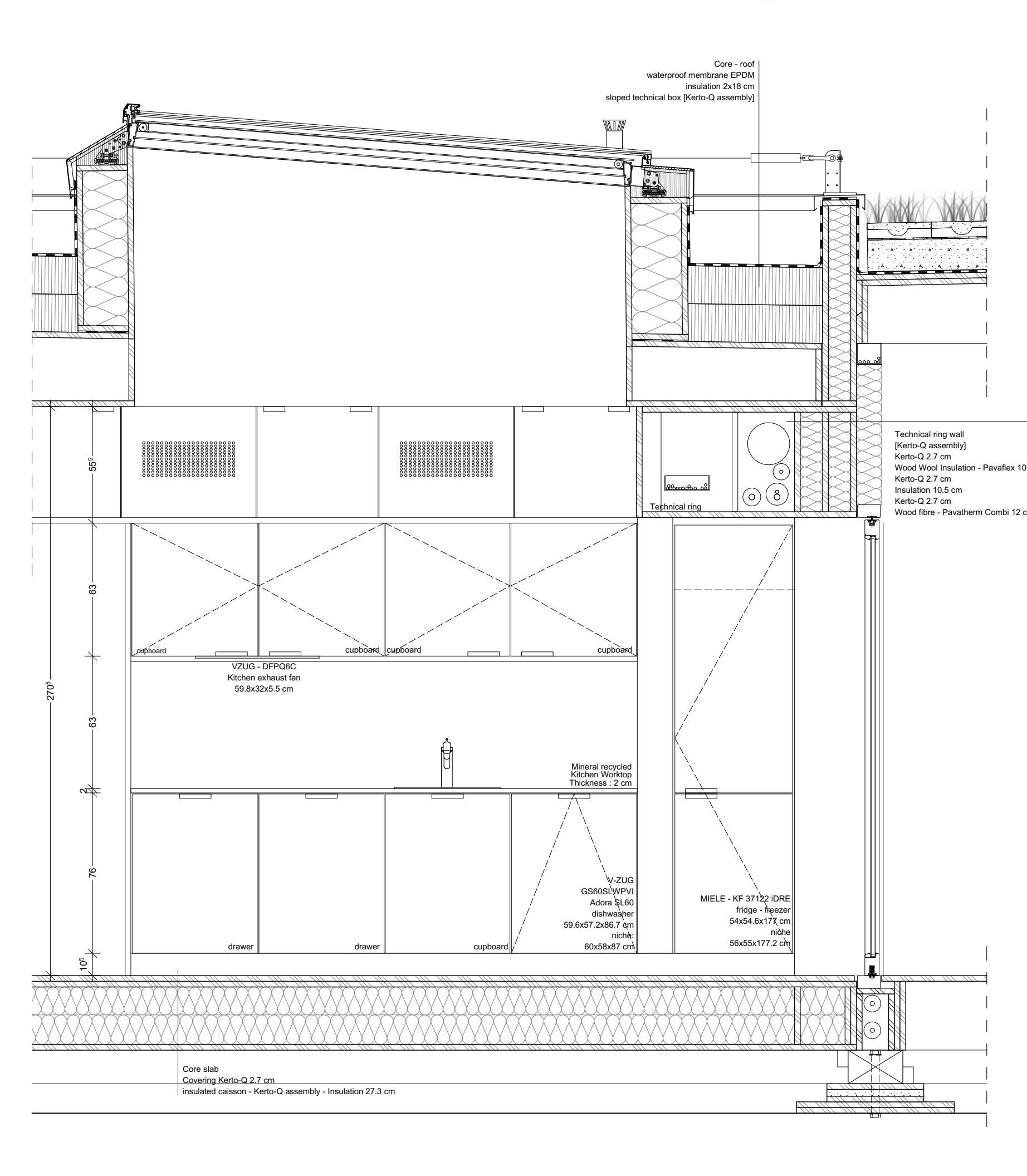
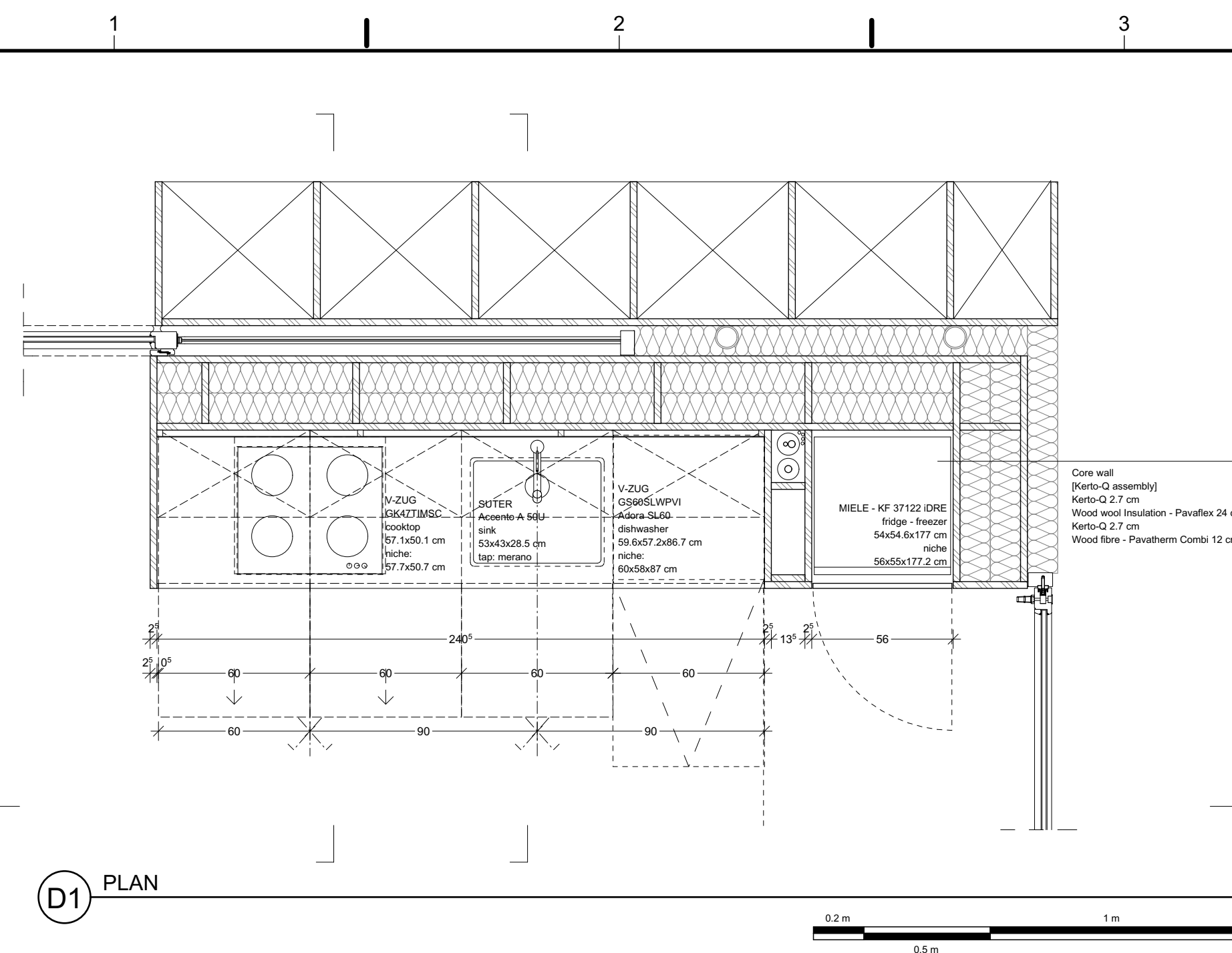
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02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: JACQUET scale: 1:20

KITCHEN MODULE DETAILS

A-431



Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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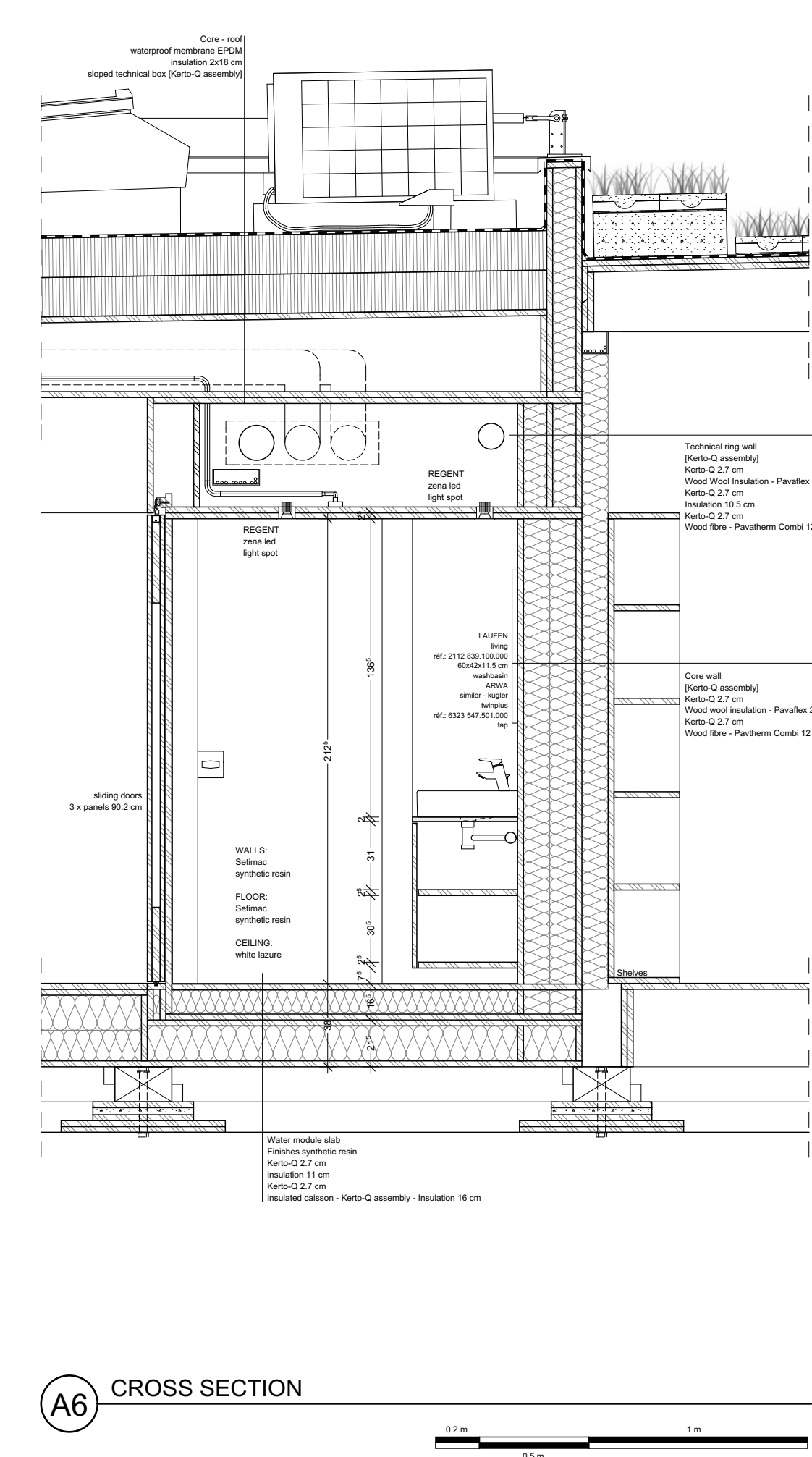
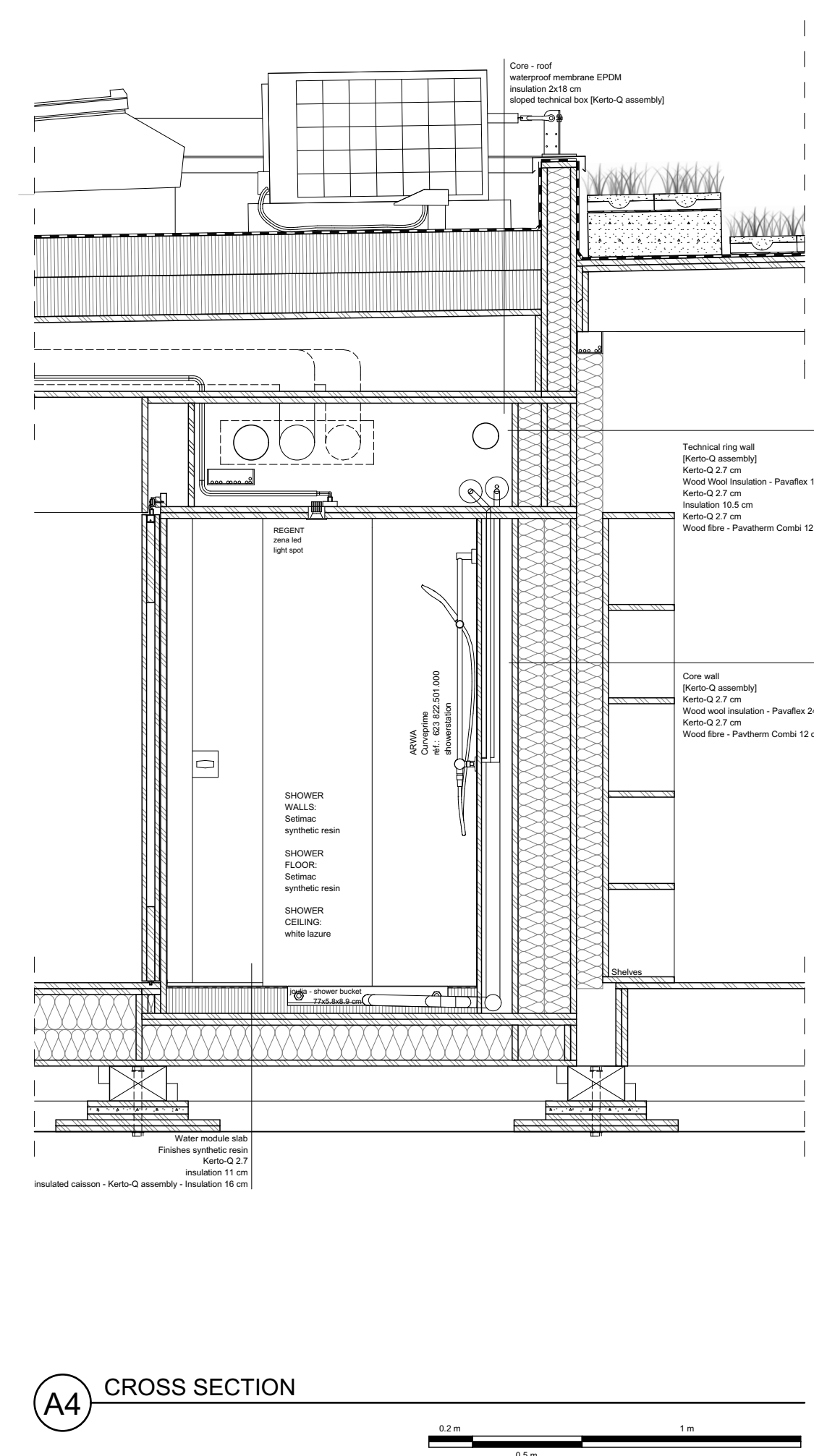
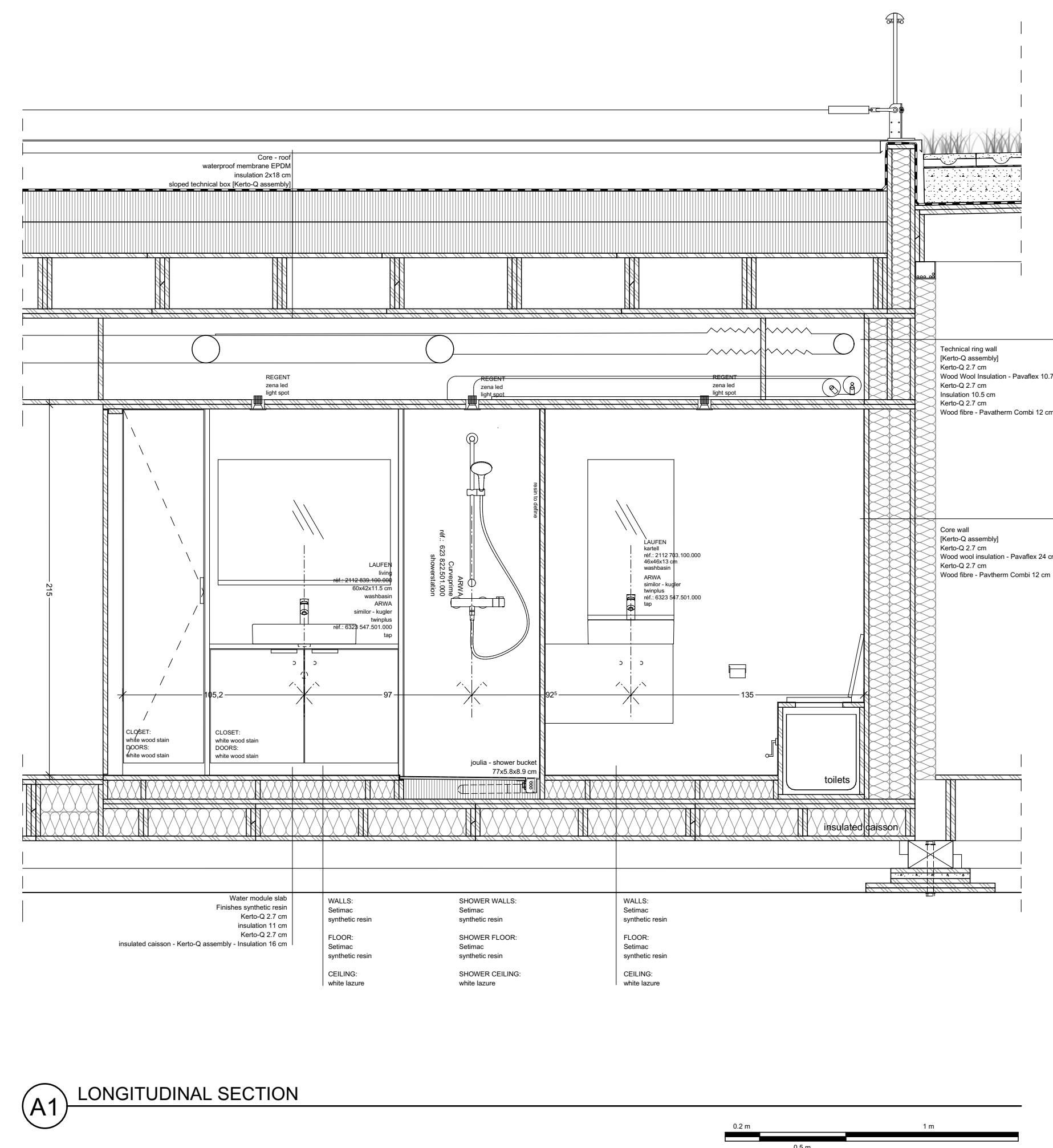
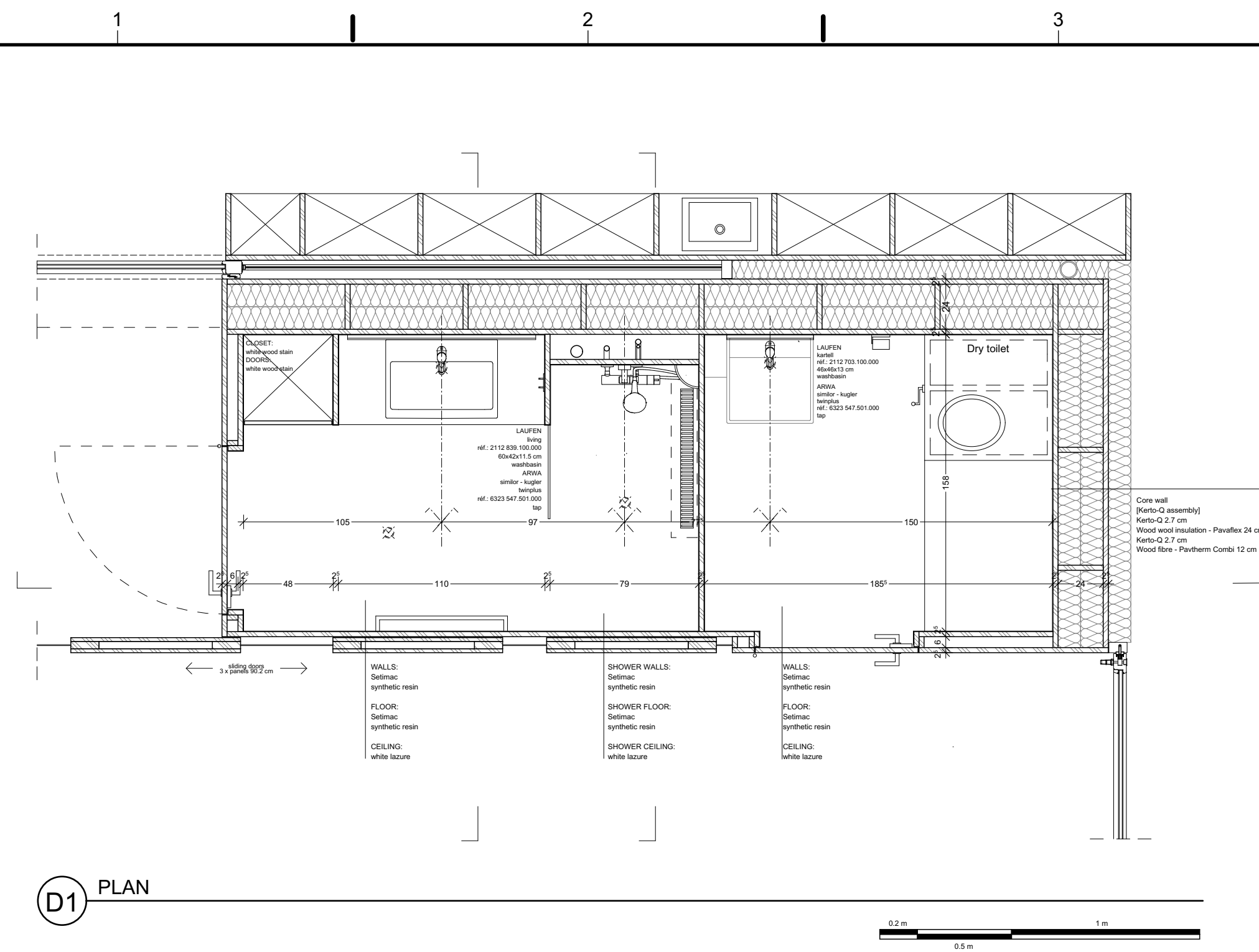
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Plans are drawn with metric system (cm)

DRAWN BY: JACQUET scale: NO

WATER MODULE DETAILS

A-451



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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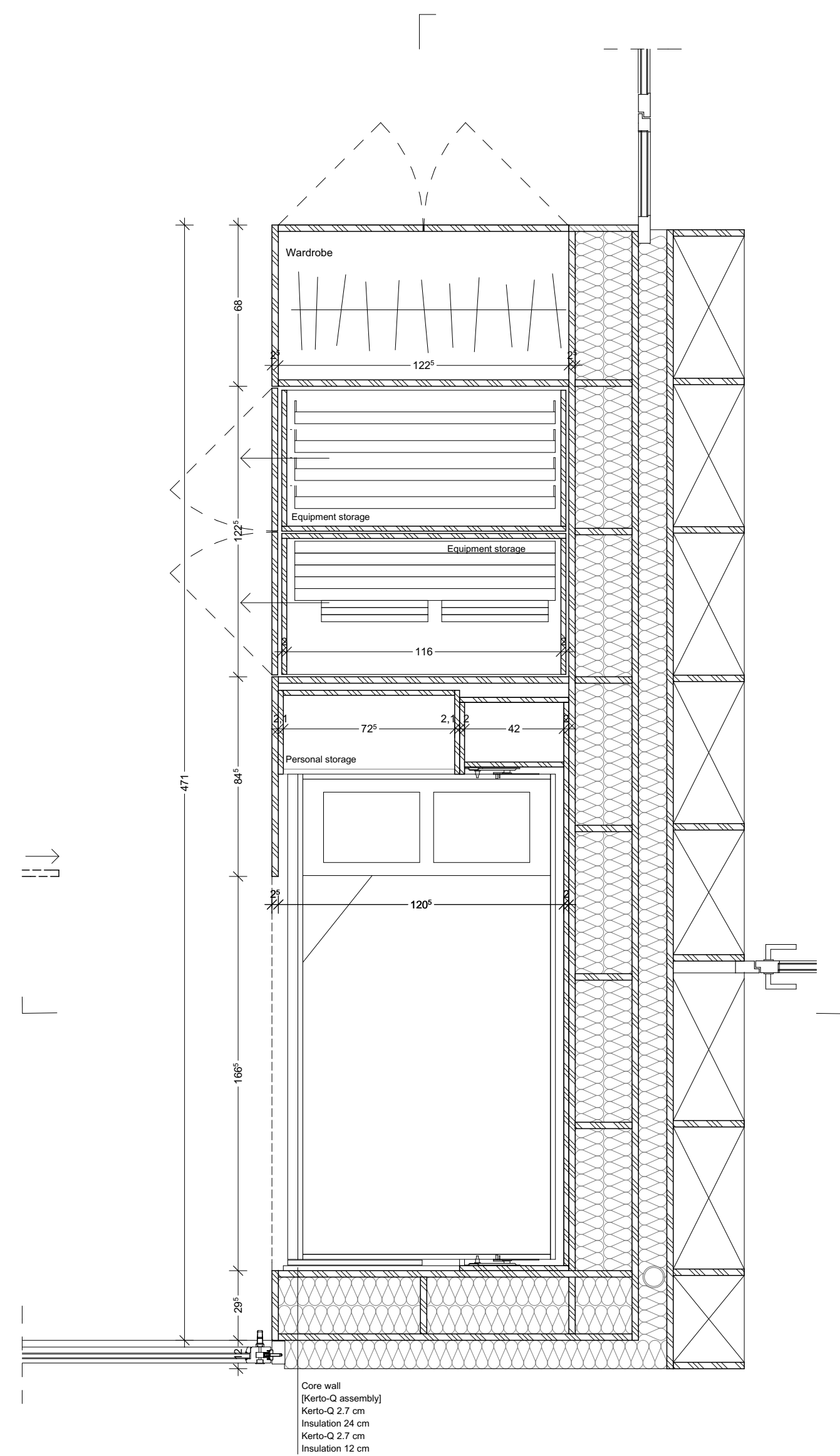
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06	2017-02-16	DELIVERABLE 06
05	2016-11-06	DELIVERABLE 04
04	2016-10-28	MODIFICATIONS SEMAINE 44
03	2016-10-24	MODIFICATIONS SEMAINE 43
02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

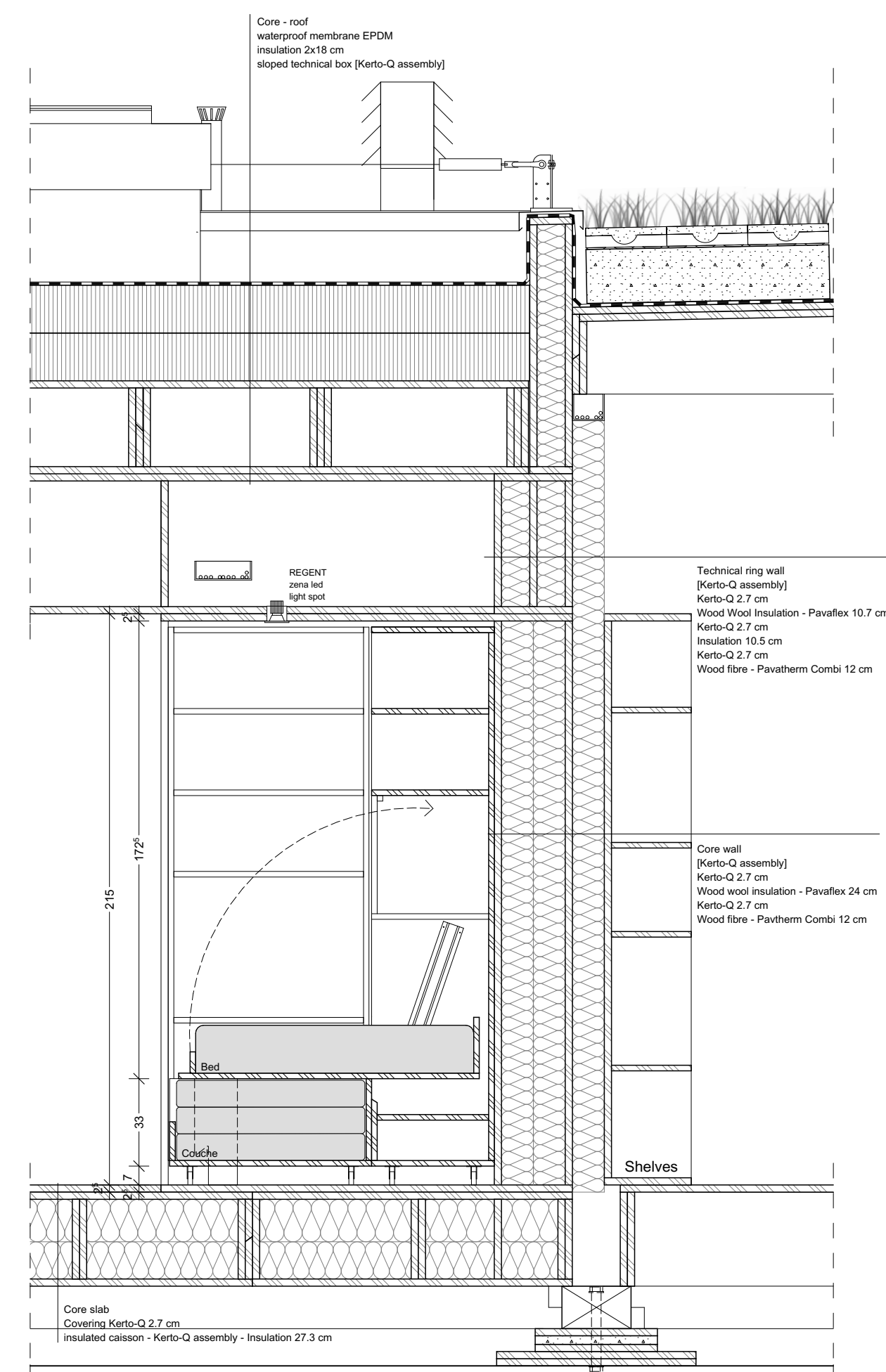
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BEDROOM MODULE DETAILS

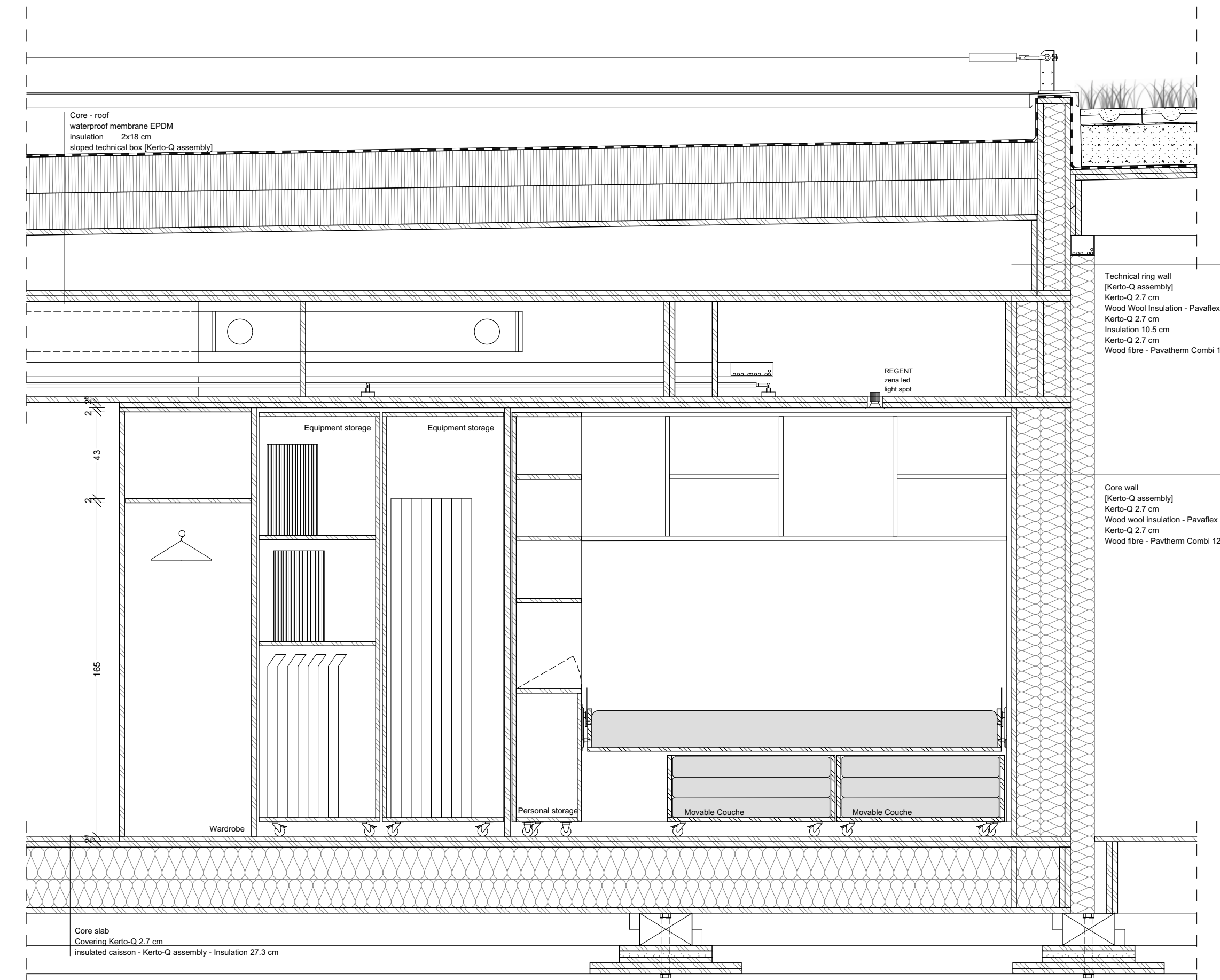
A-471



A1 PLAN - BED CONFIGURATION



A3 CROSS SECTION - BED CONFIGURATION



A5 LONGITUDINAL SECTION - BED CONFIGURATION

Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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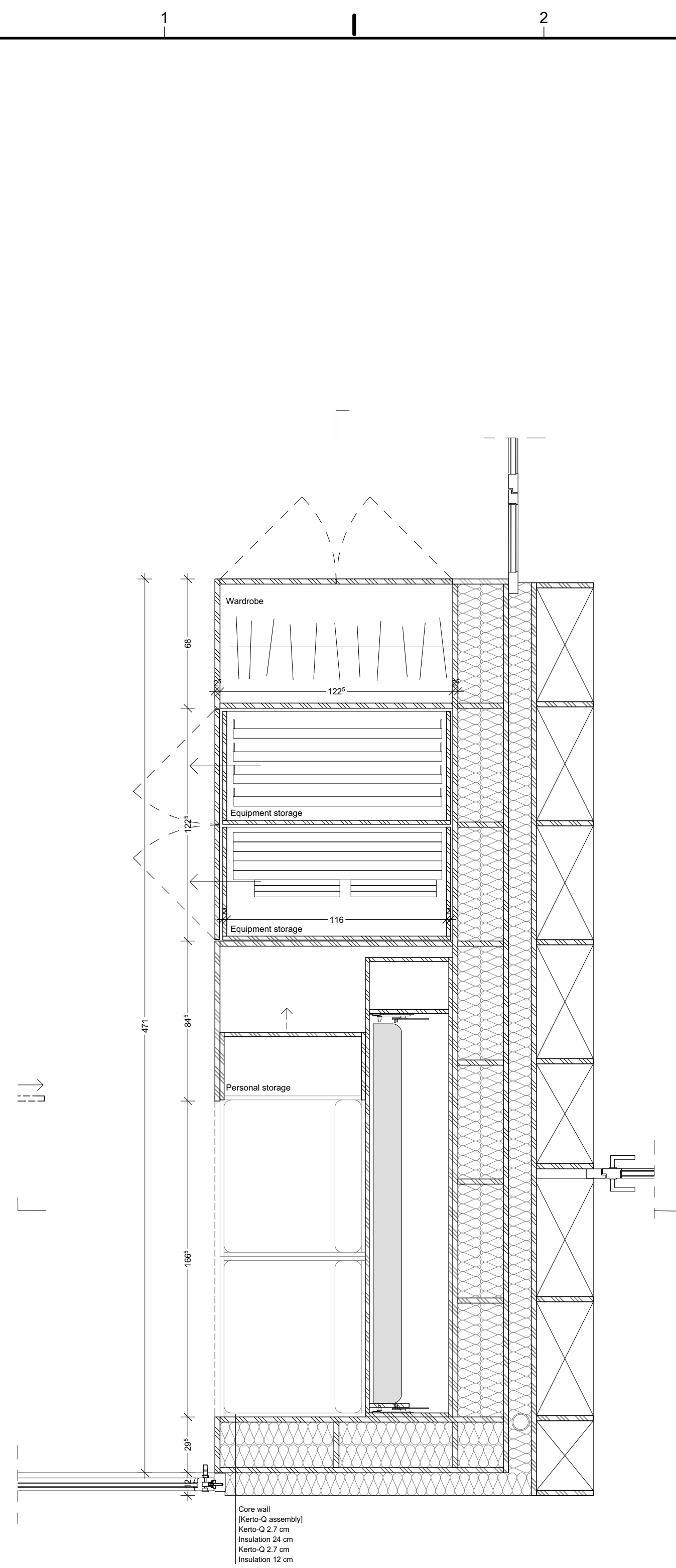
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Plans are drawn with metric system (cm)

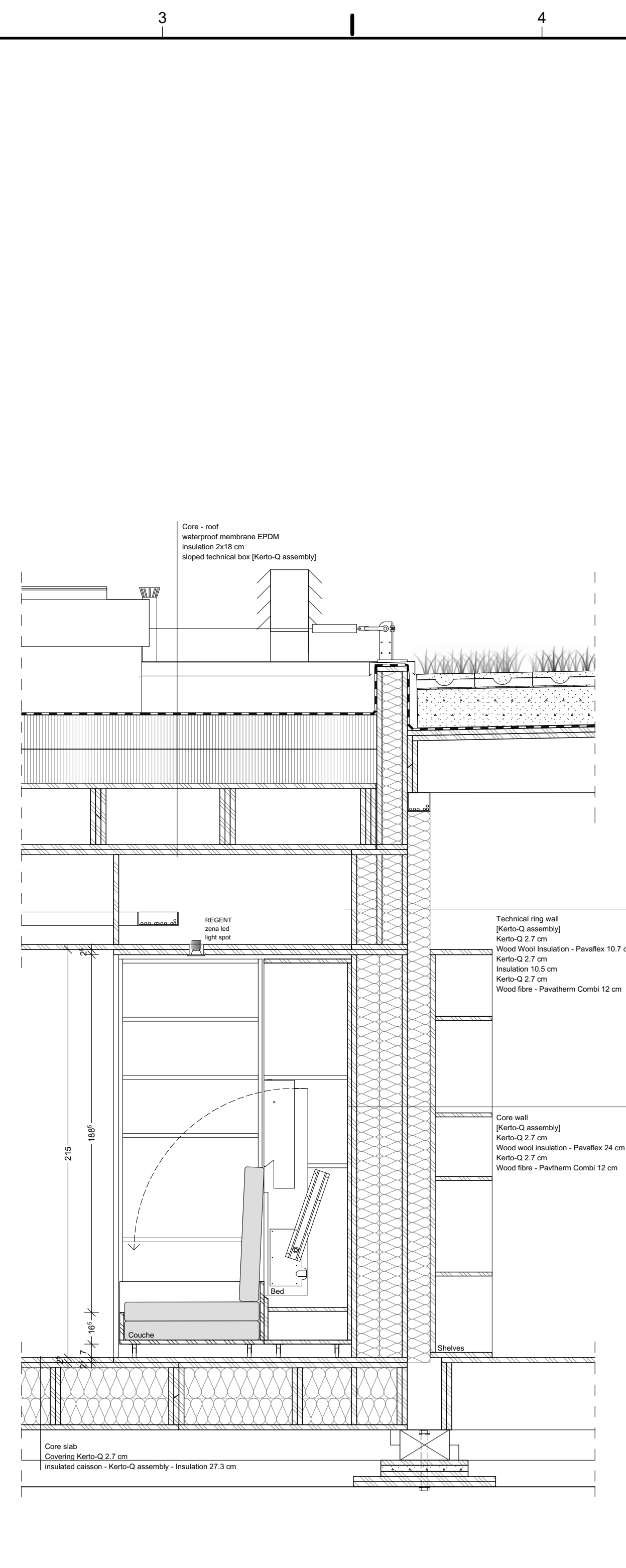
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BEDROOM MODULE DETAILS

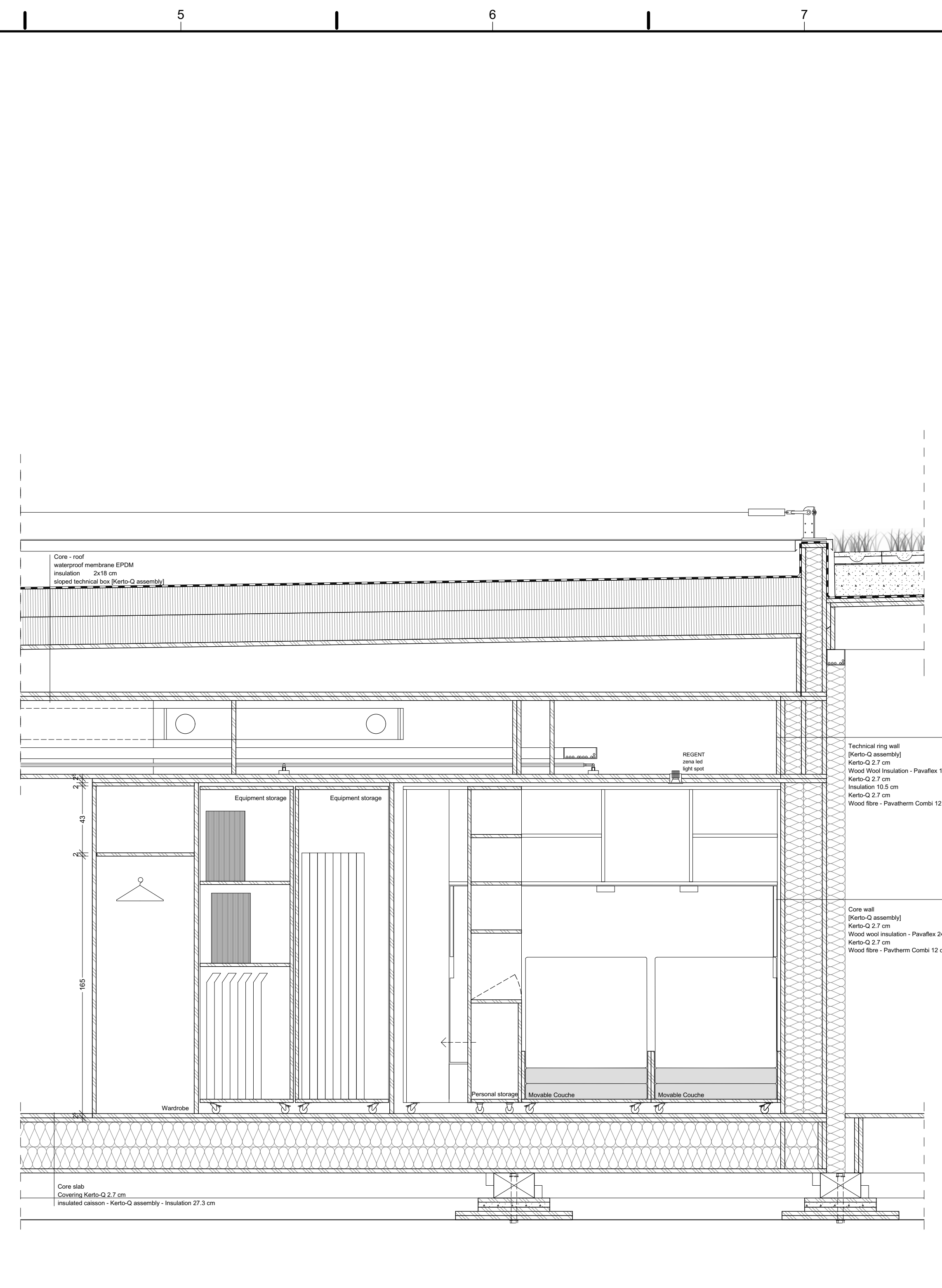
A-472



A1 PLAN - SOFA CONFIGURATION



A3 CROSS SECTION - SOFA CONFIGURATION



A5 LONGITUDINAL SECTION - SOFA CONFIGURATION



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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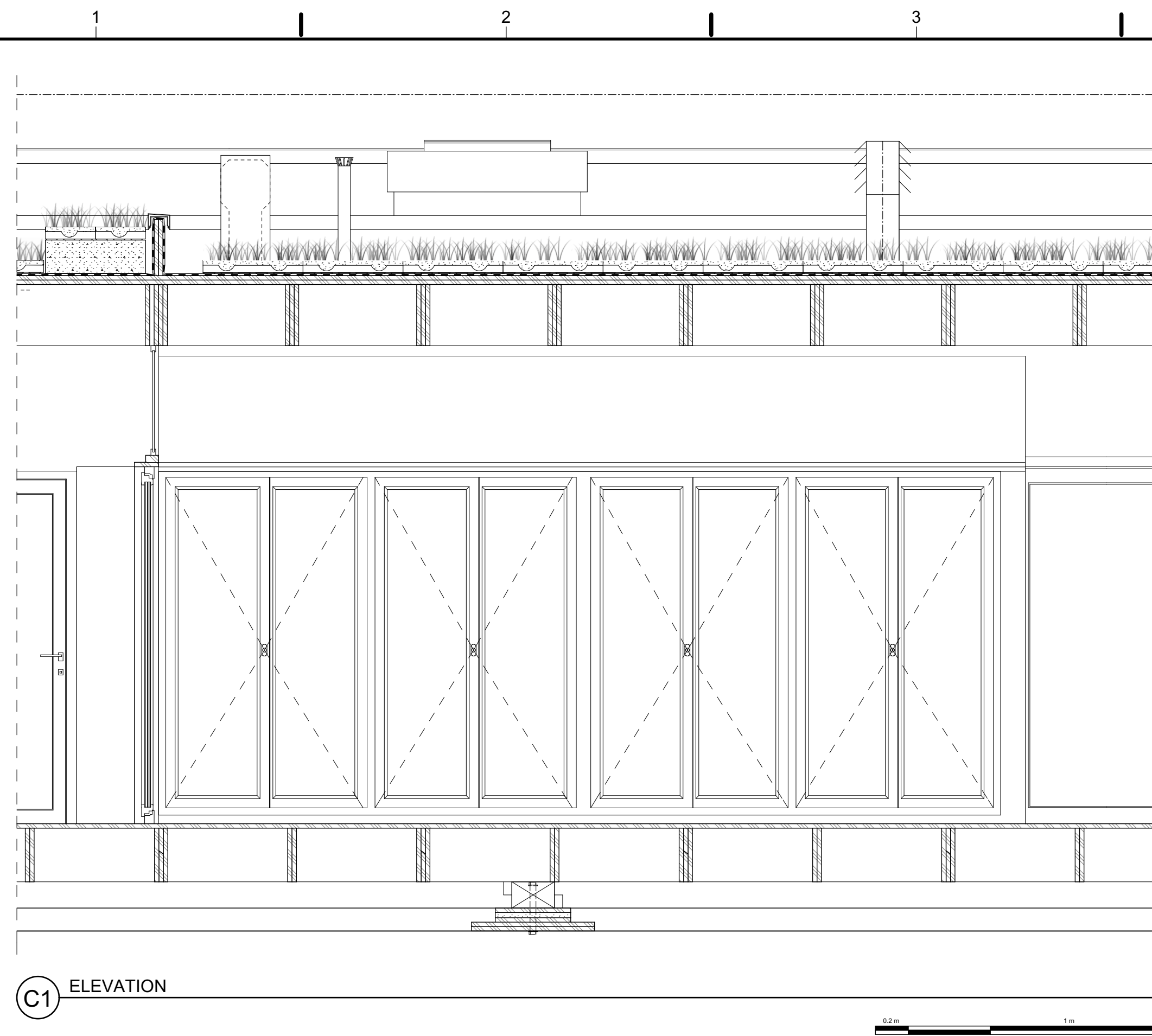
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Plans are drawn with metric system (cm)

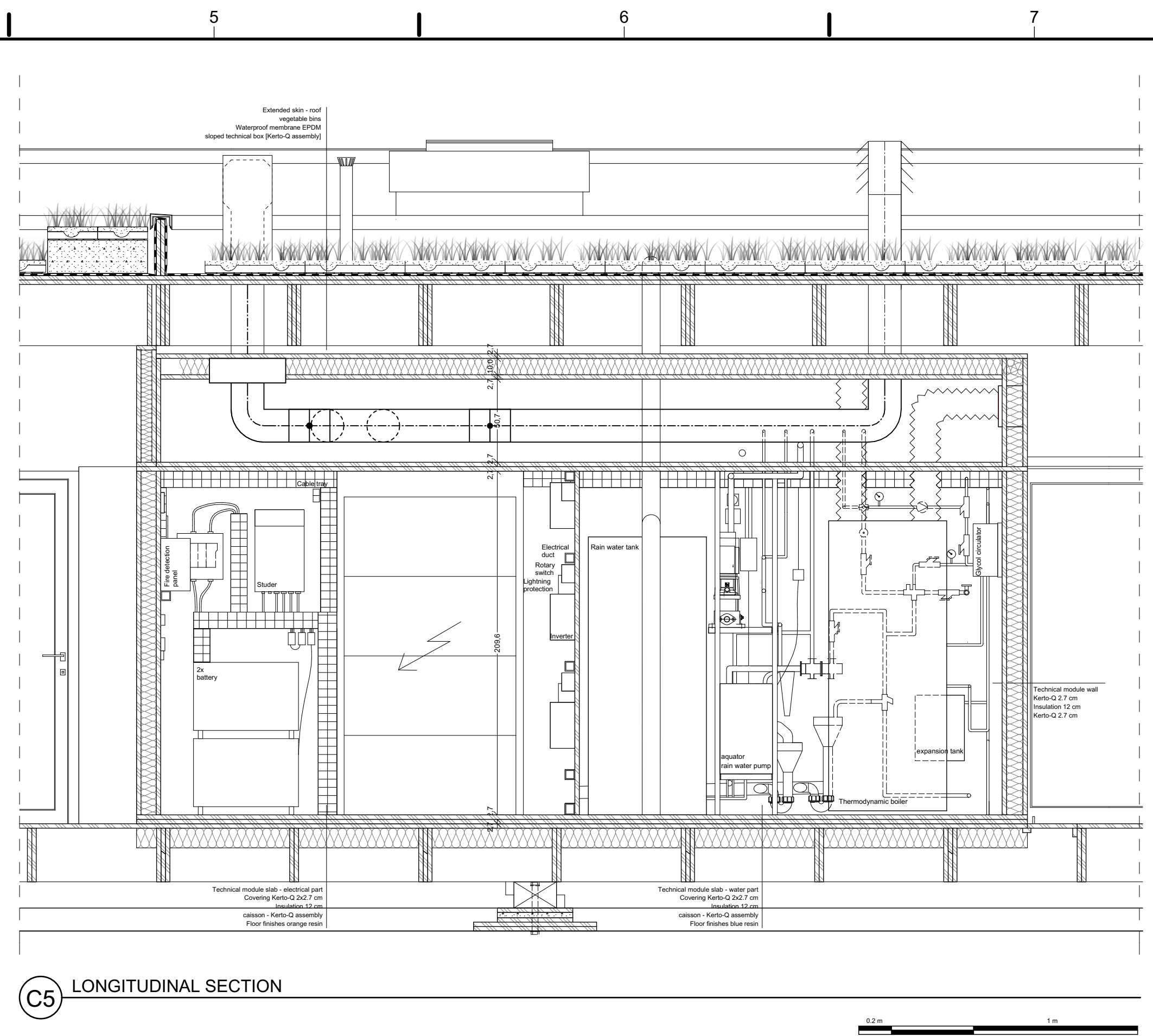
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TECHNICAL MODULE DETAILS

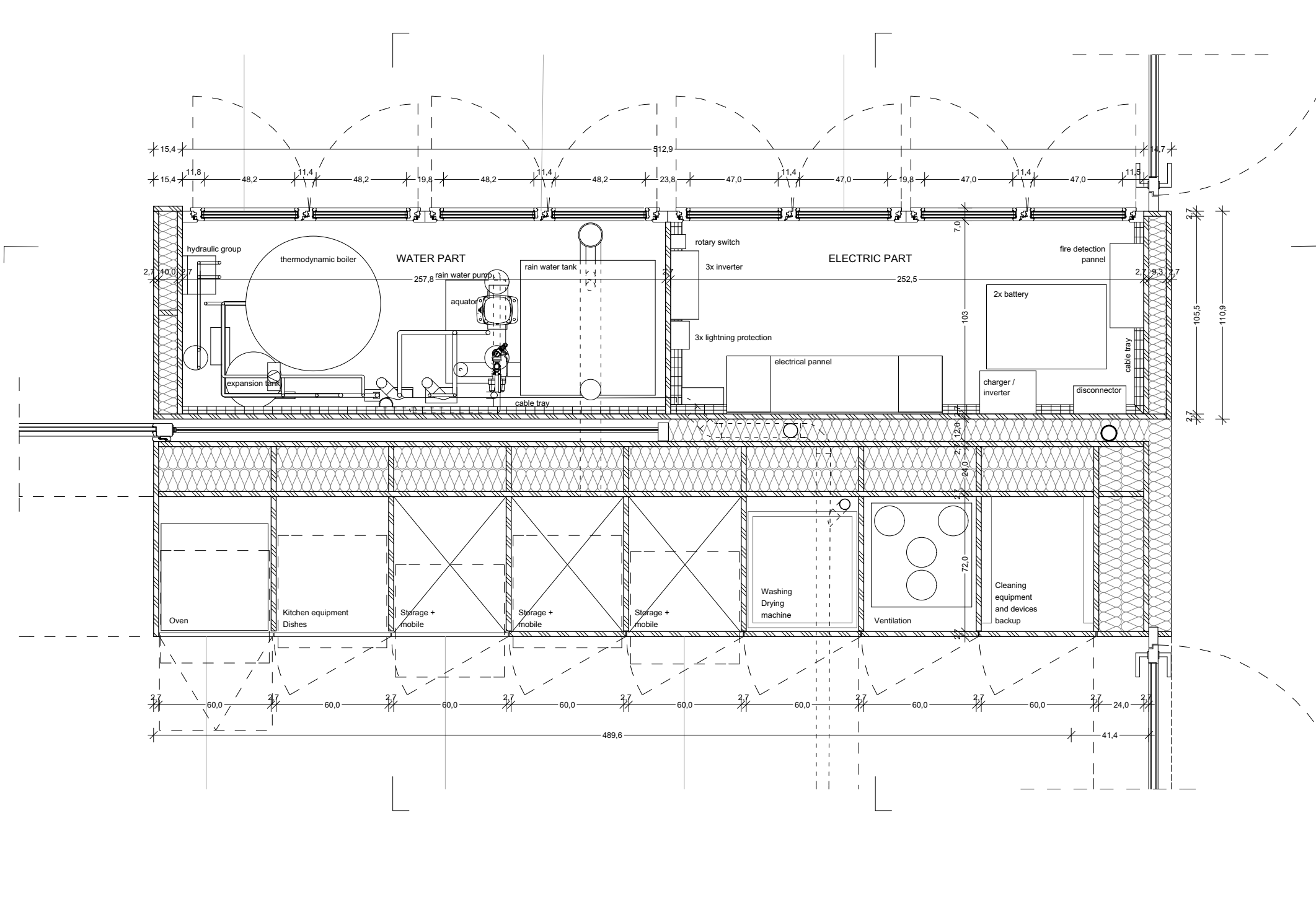
A-491



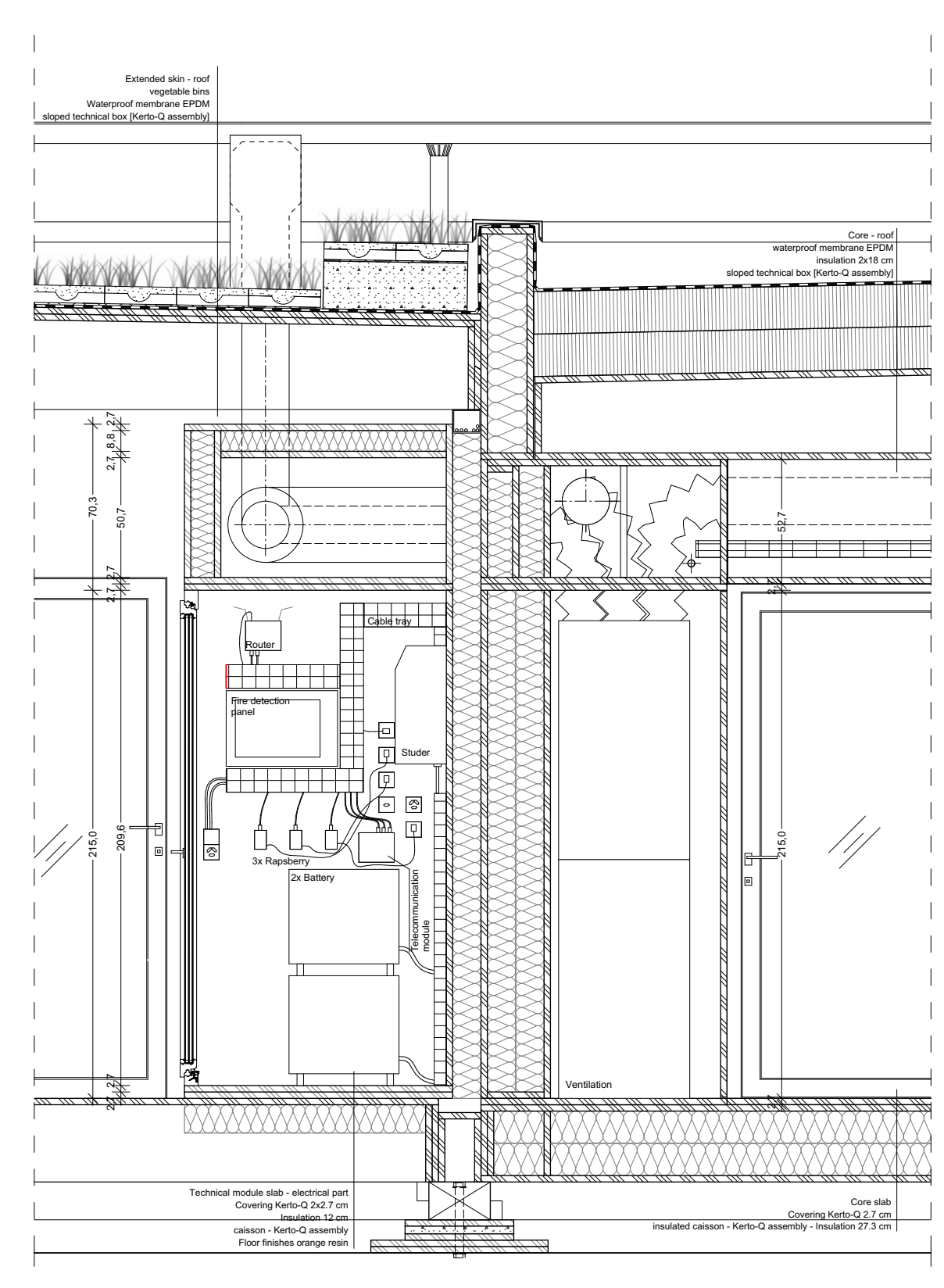
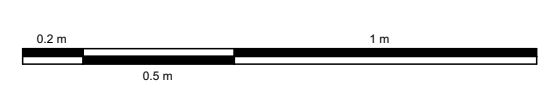
C1 ELEVATION



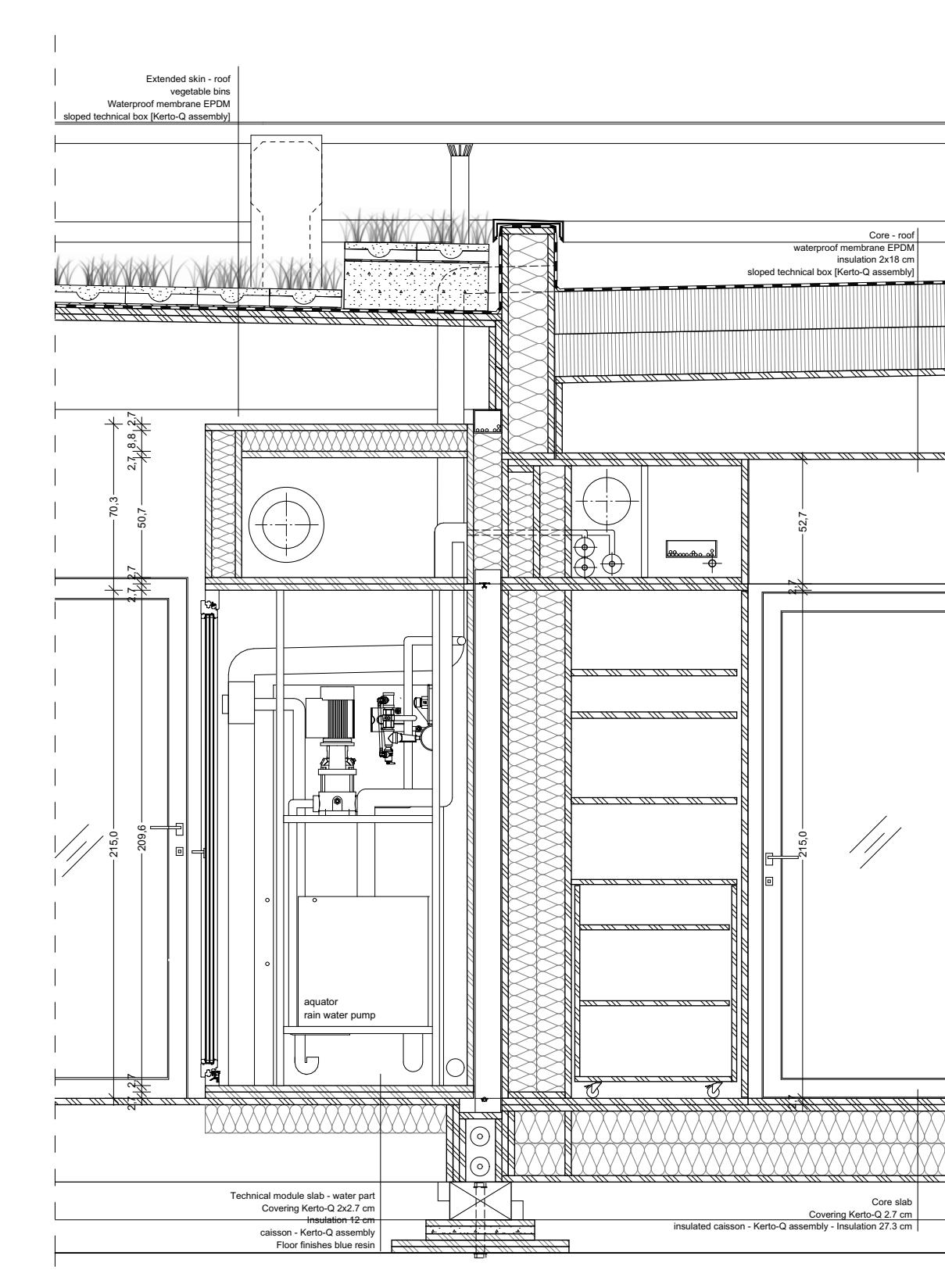
C5 LONGITUDINAL SECTION



A1 PLAN



A4 CROSS SECTION



A5 CROSS SECTION



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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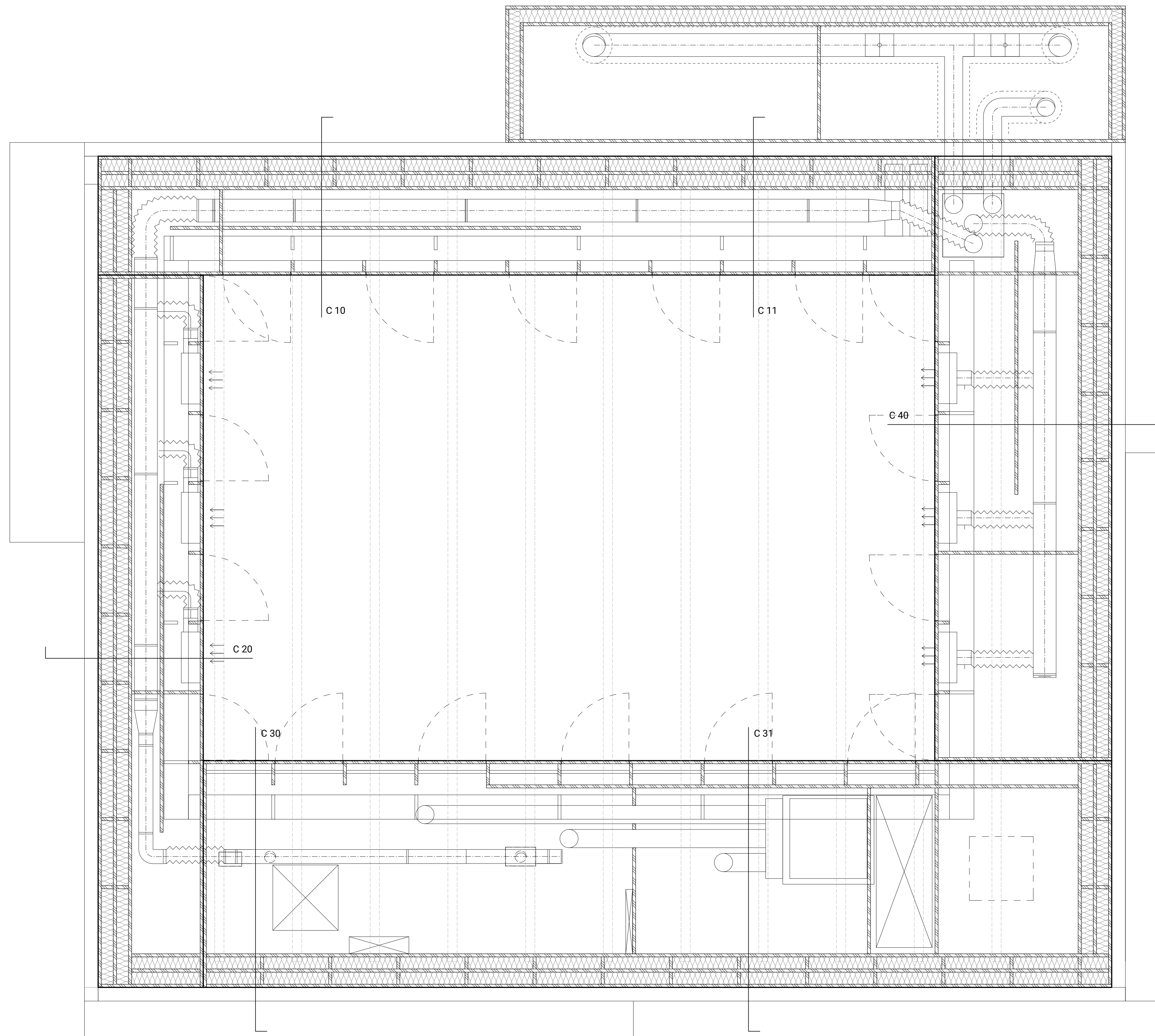
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01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

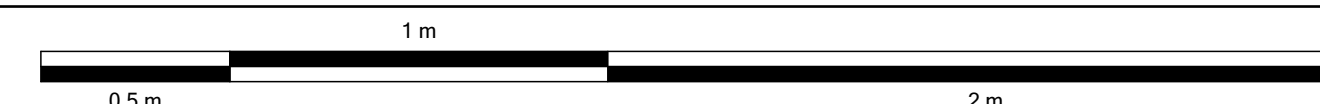
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TECHNICAL RING MODULE DETAILS

A-511



(A2) TECHNICAL RING MODULE DETAILS



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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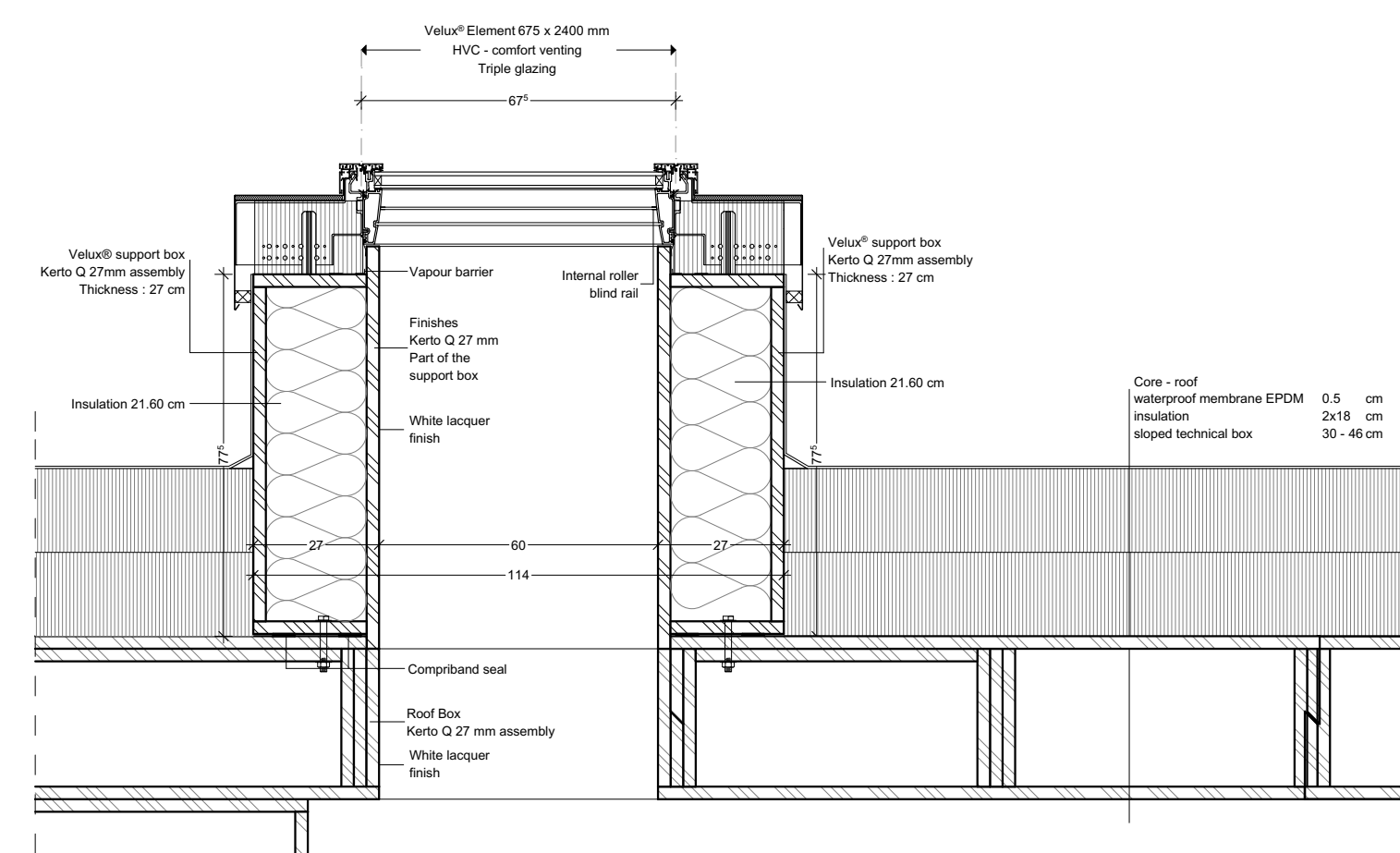
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Plans are drawn with metric system (cm)

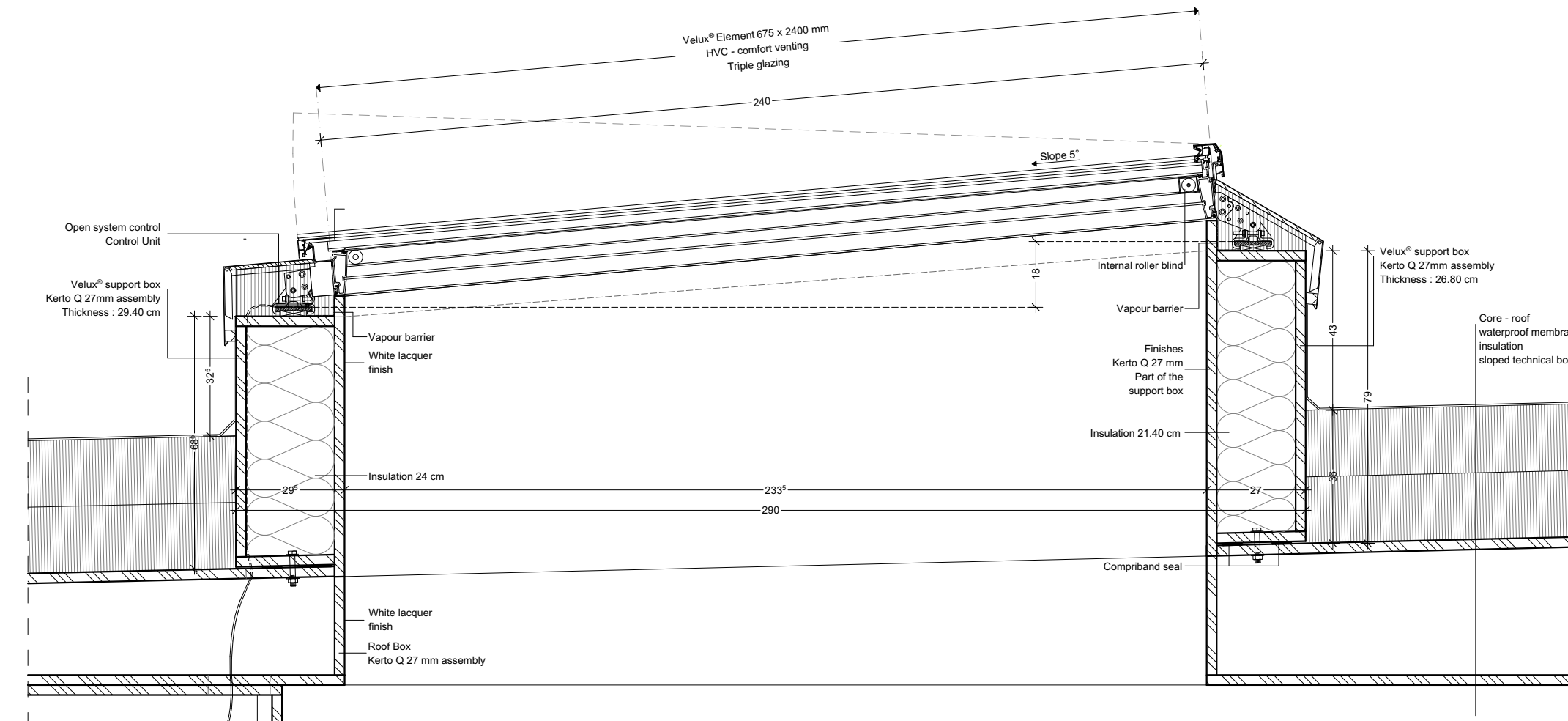
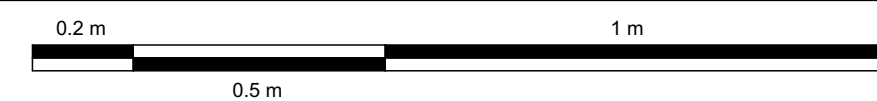
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CORE ROOF DETAILS

A-621



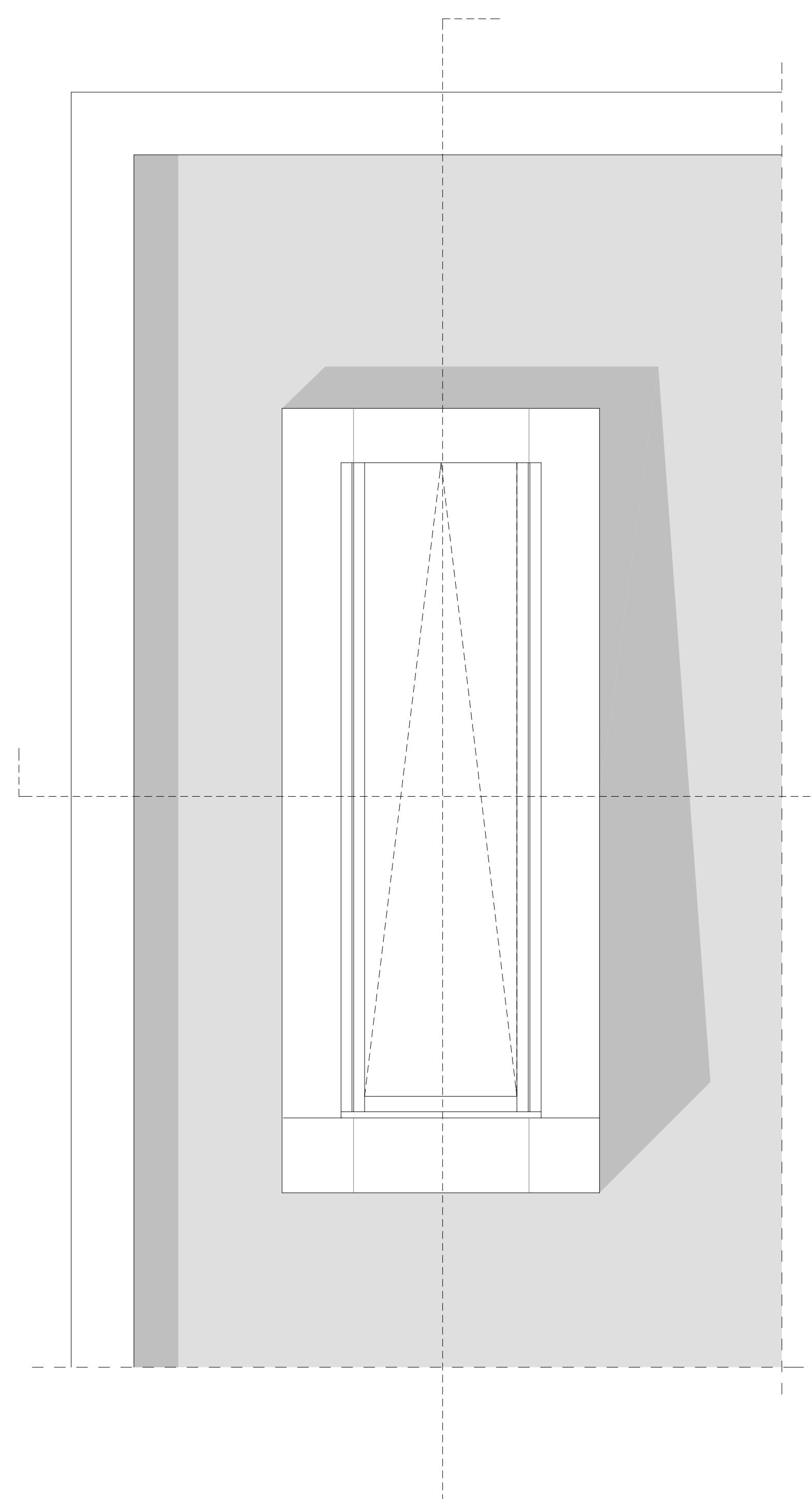
D1 CROSS SECTION



B1 LONGITUDINAL SECTION



A5 PLAN - OVERVIEW



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Passage du Cardinal 13B
CH-1700 Fribourg

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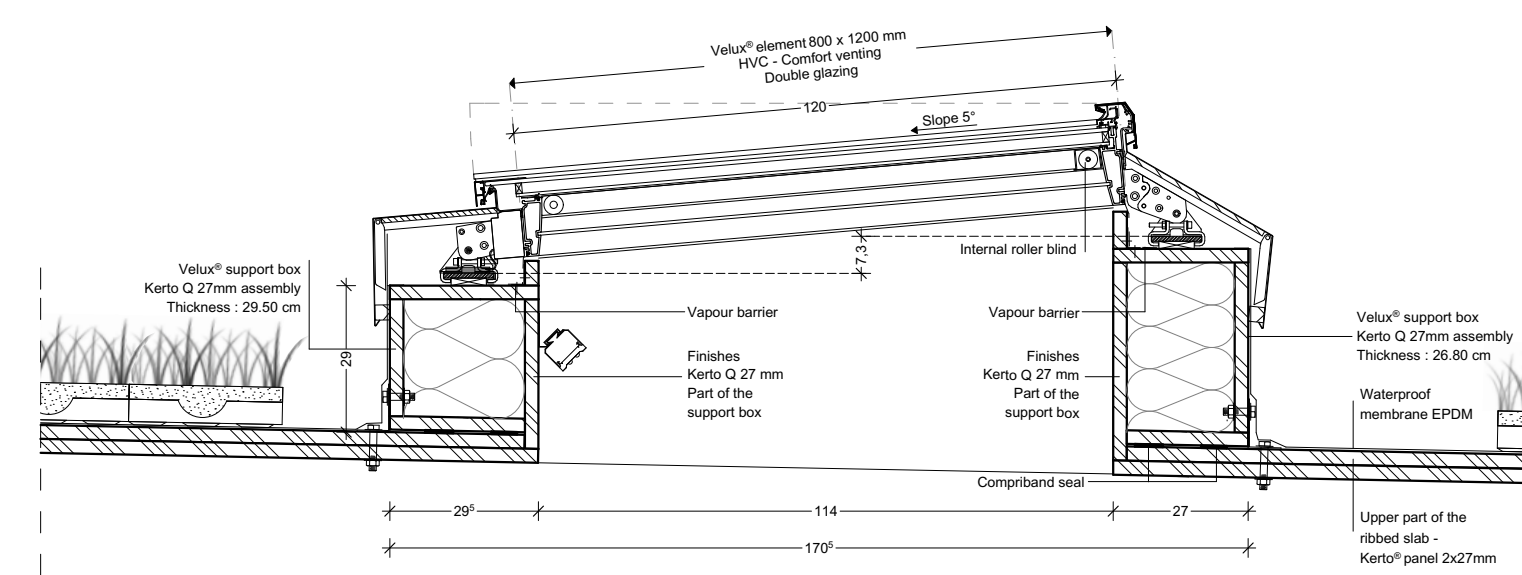
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01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

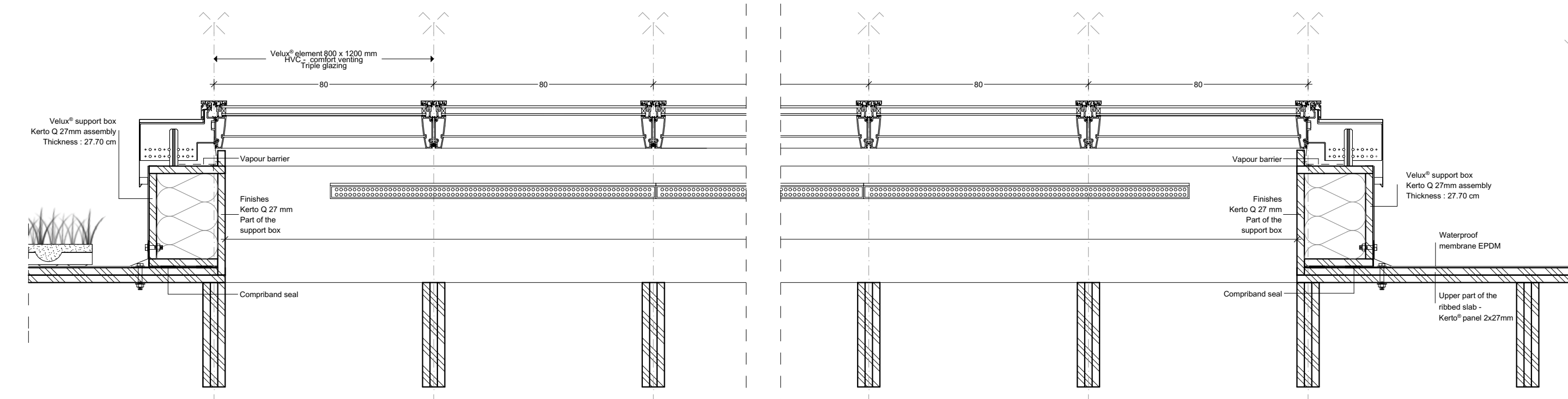
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SKIN ROOF DETAILS

A-622



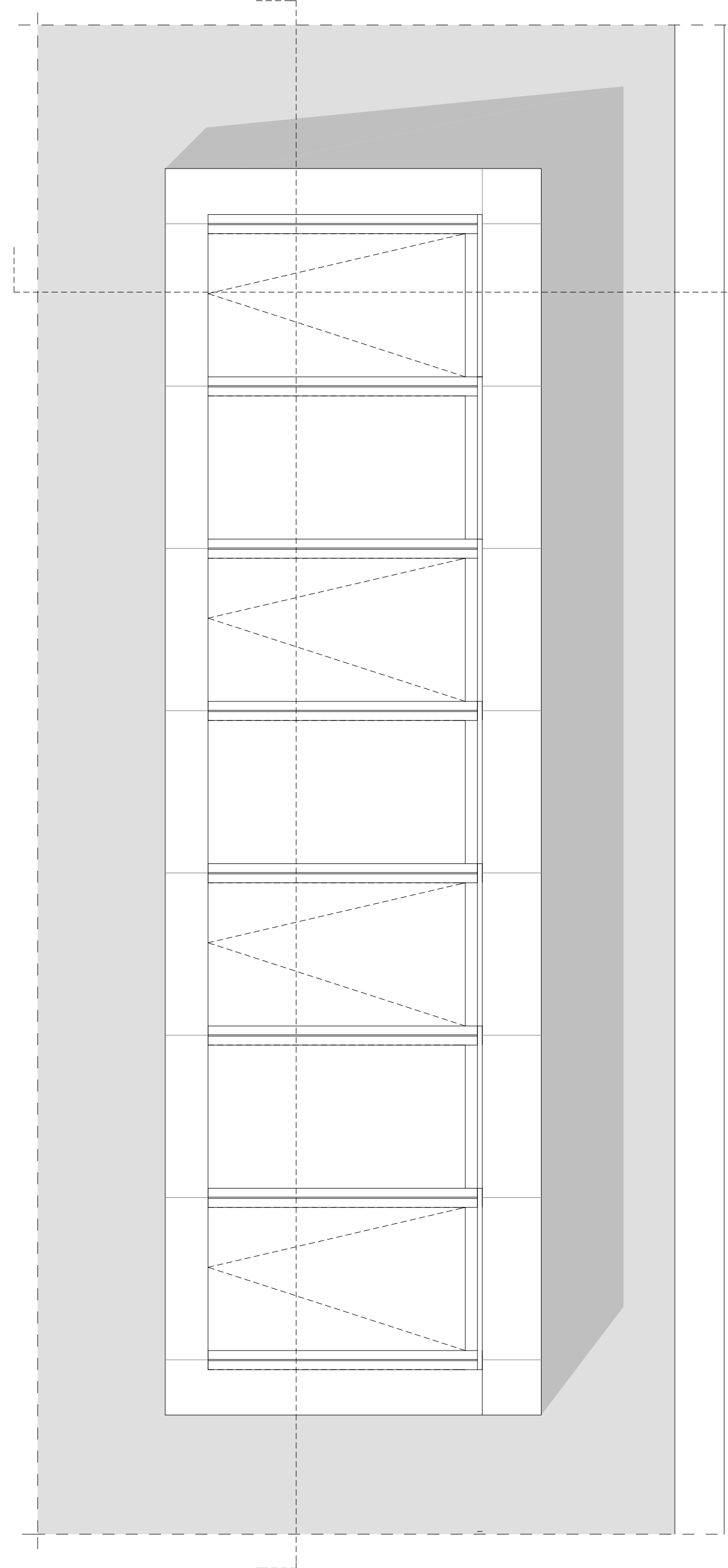
D1 CROSS SECTION



B1 LONGITUDINAL SECTION



A5 PLAN - OVERVIEW



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 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
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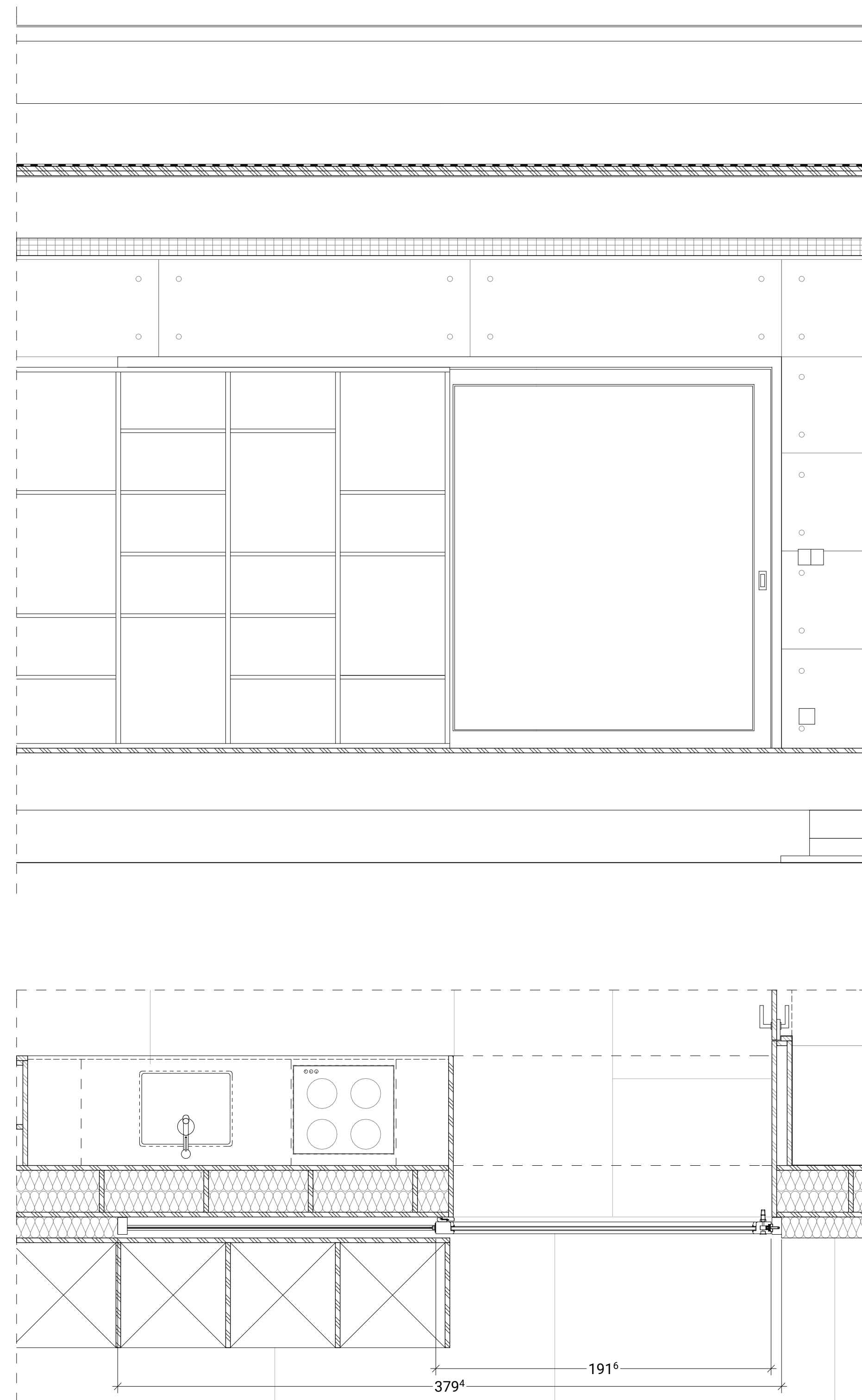
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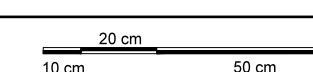
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WINDOWS DETAILS

A-631



A2 WINDOWS DETAILS



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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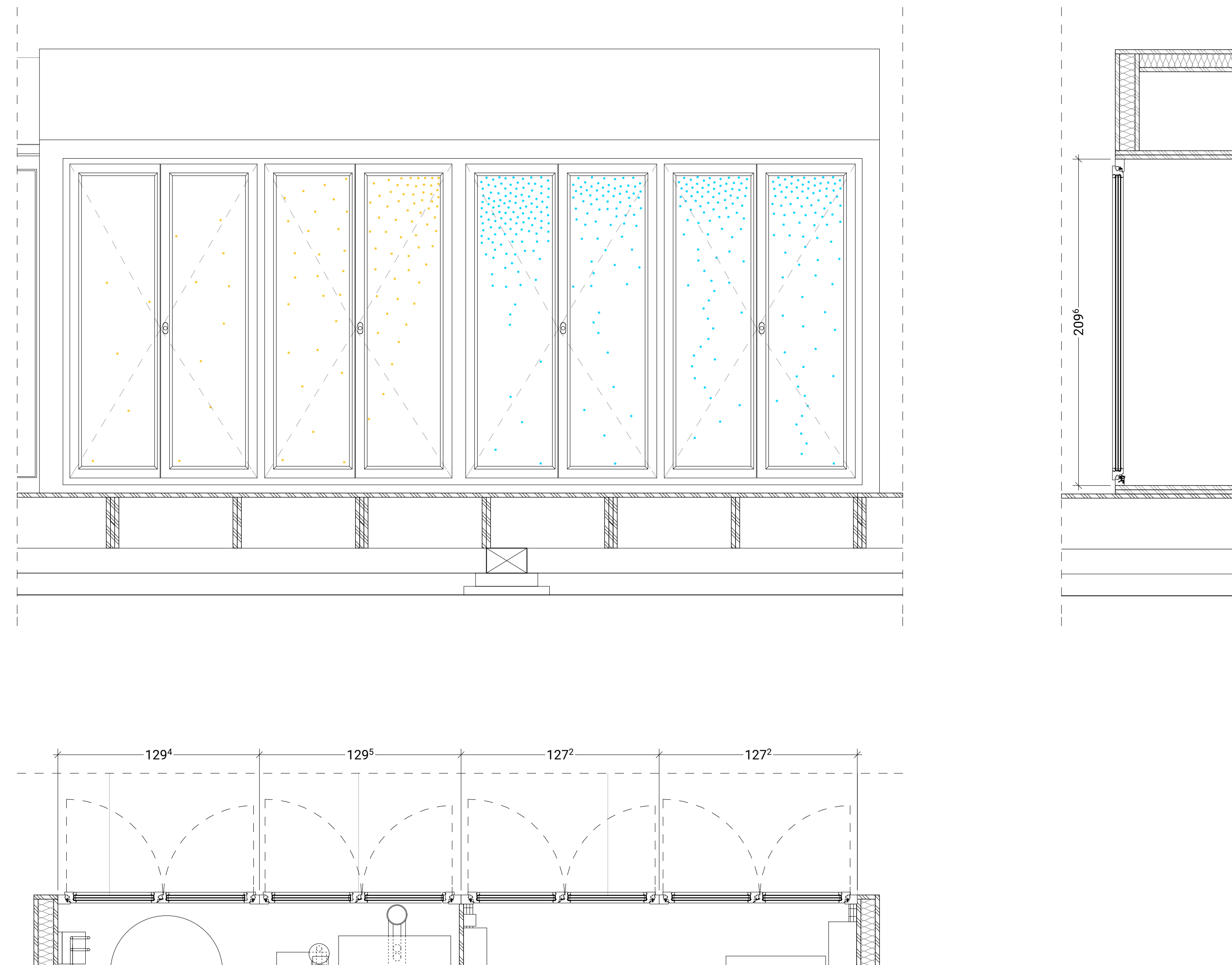
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

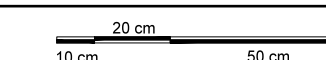
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DOORS DETAILS

A-651



A2 DOORS DETAILS - technical room doors



Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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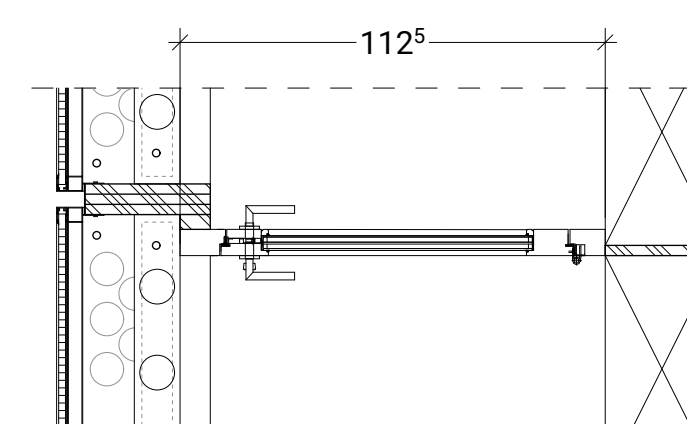
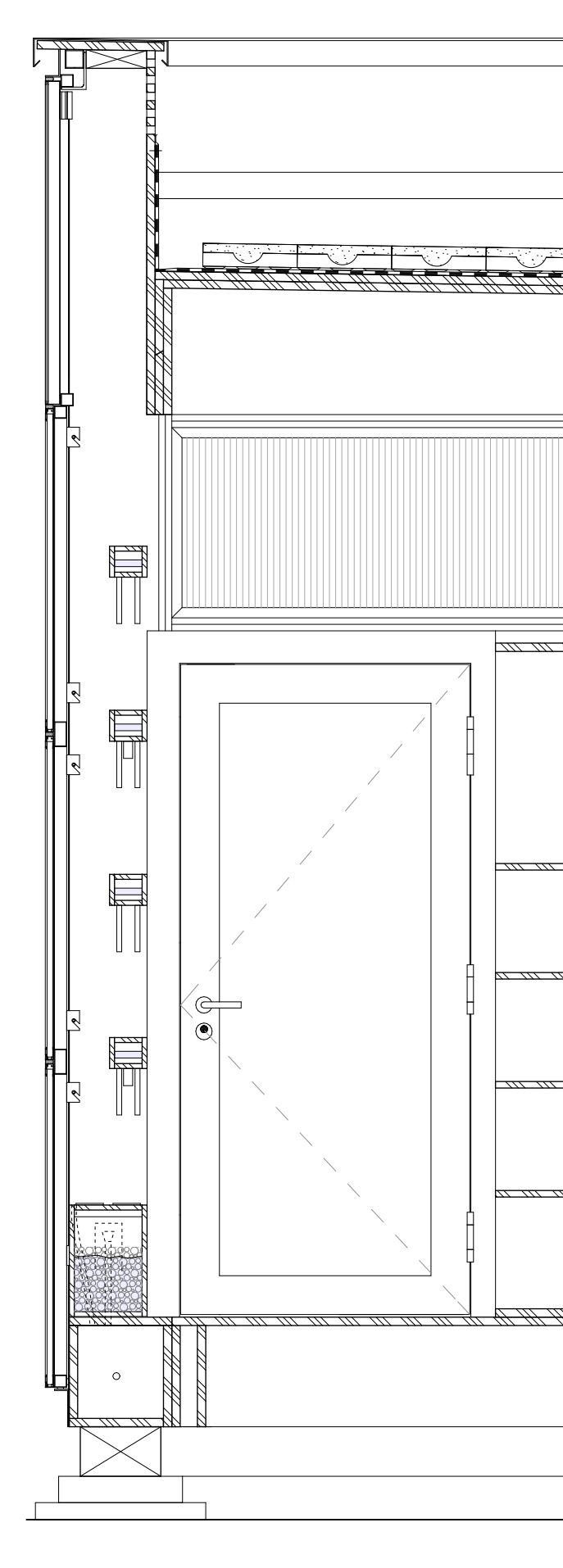
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Plans are drawn with metric system (cm)

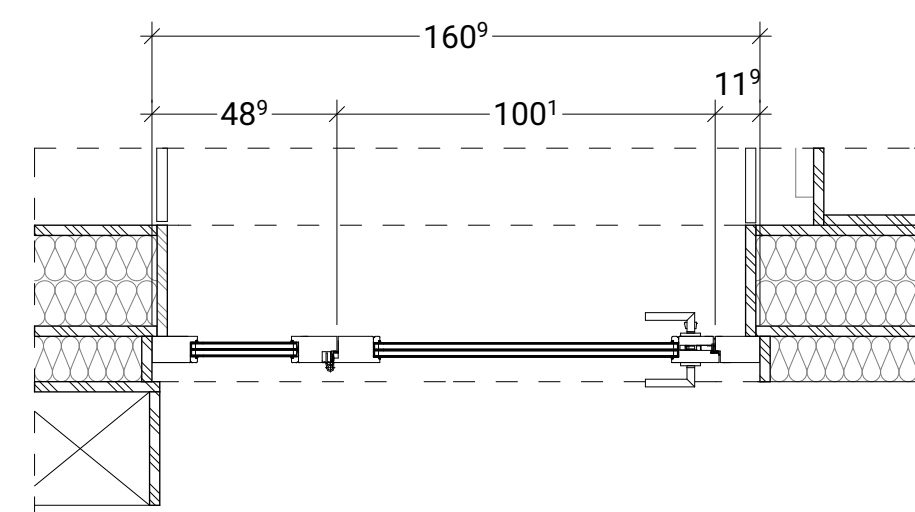
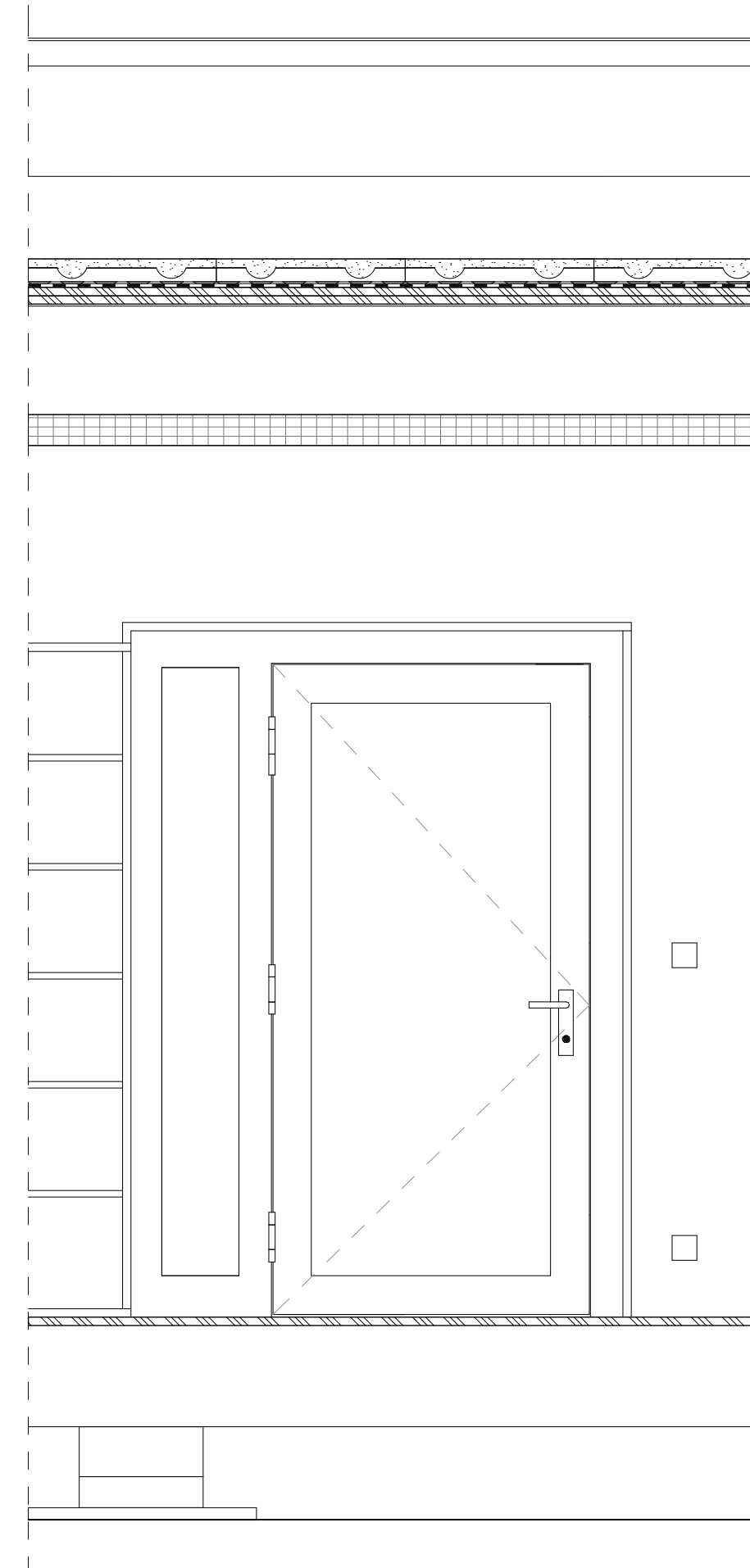
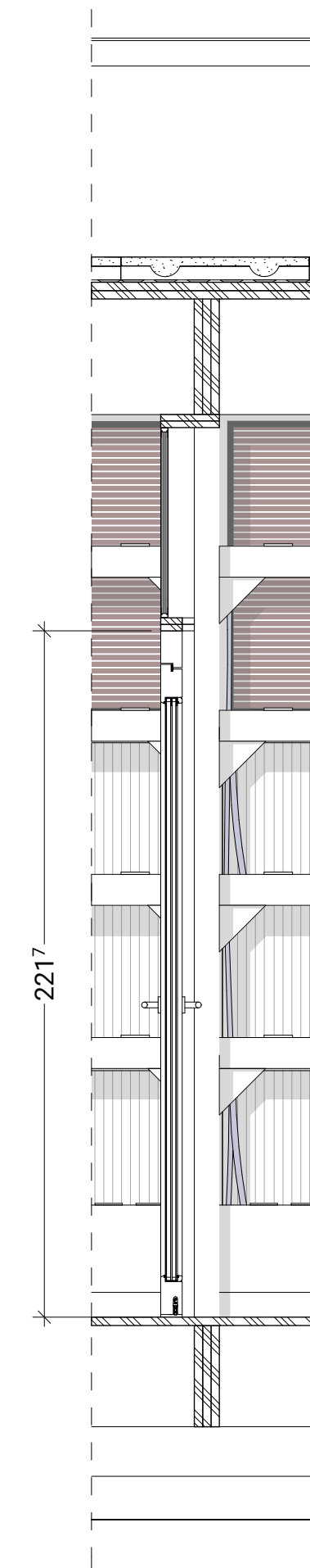
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DOORS DETAILS

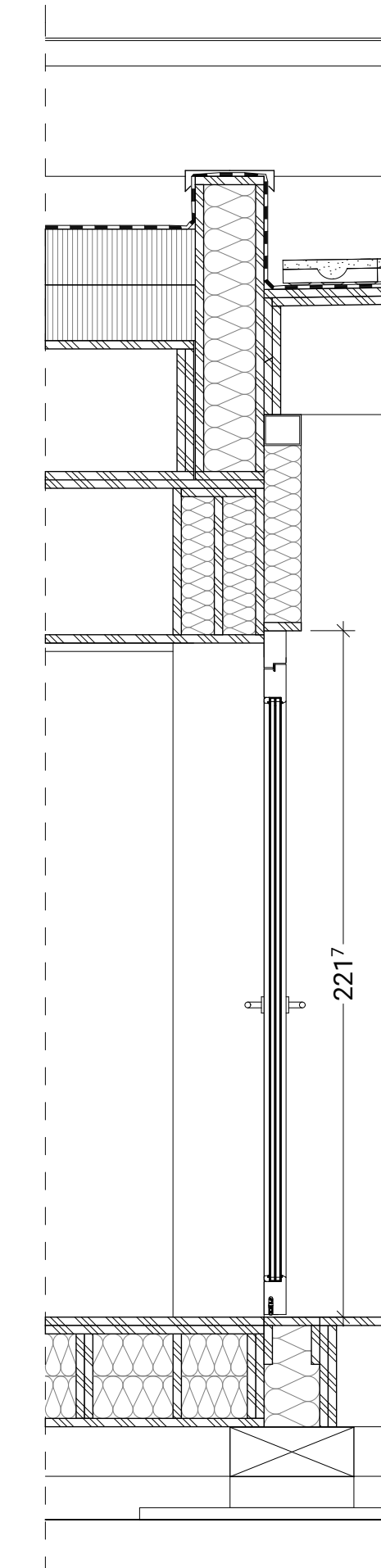
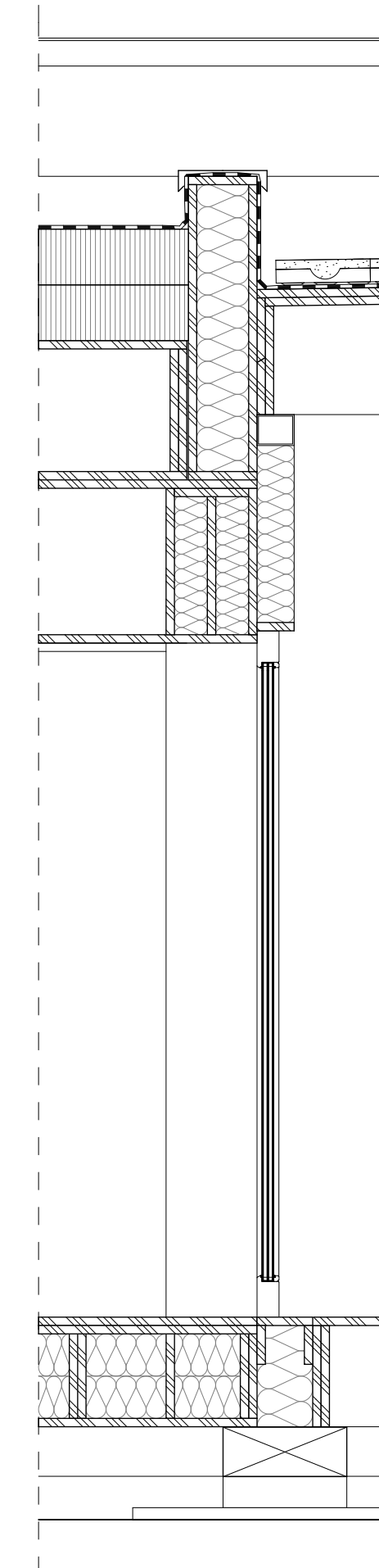
A-652



A1 DOORS DETAILS - skin door



A4 DOORS DETAILS - core door



20 cm
10 cm 50 cm

20 cm
10 cm 50 cm

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CH-1700 Fribourg

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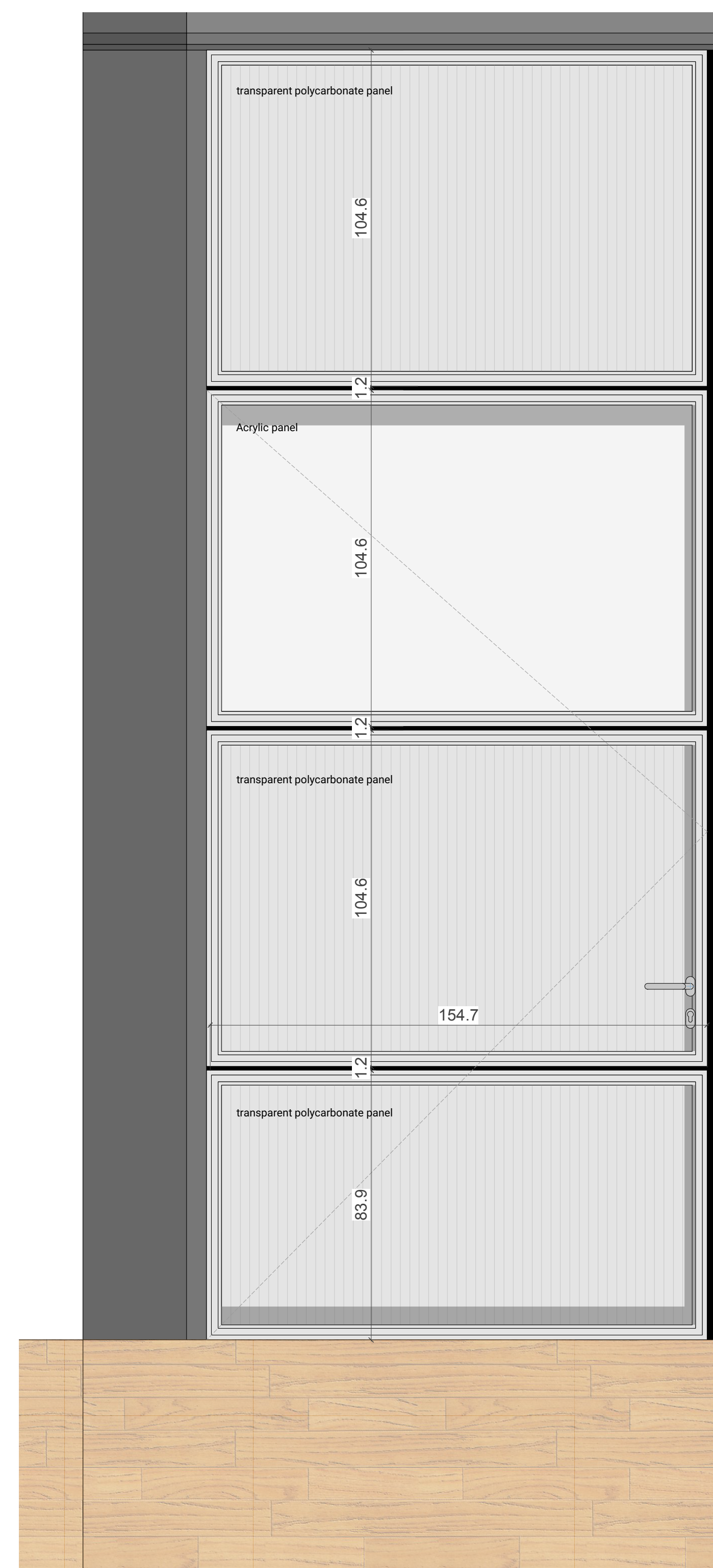
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Plans are drawn with metric system (cm)

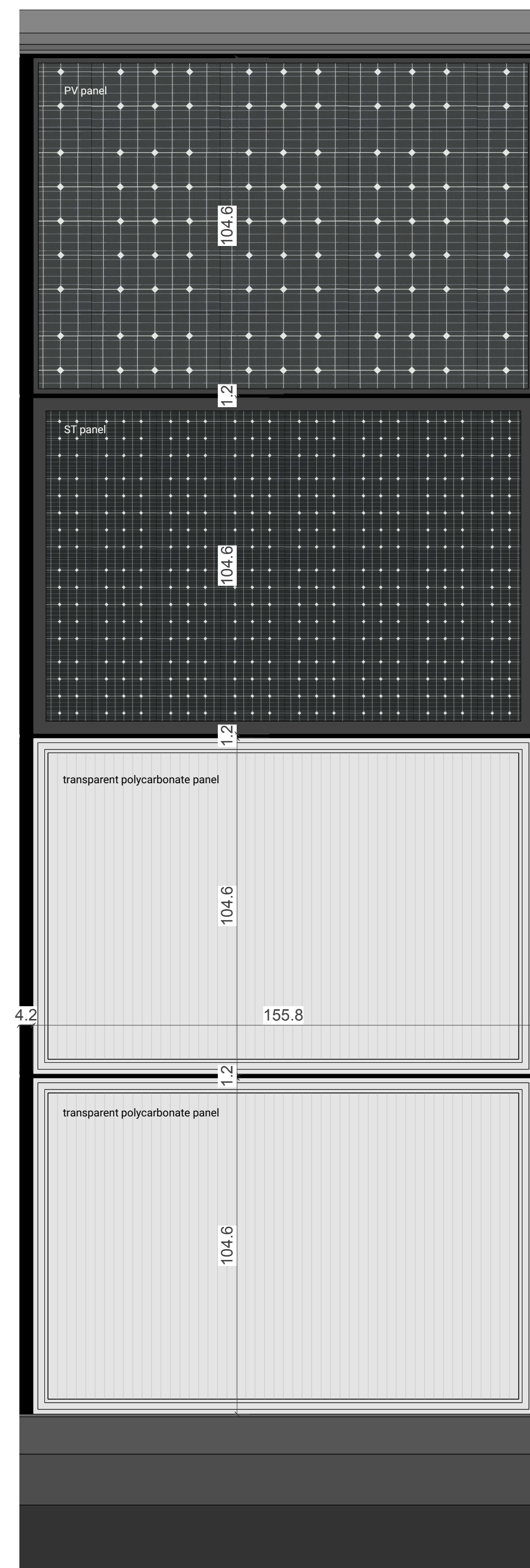
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SKIN DETAILS

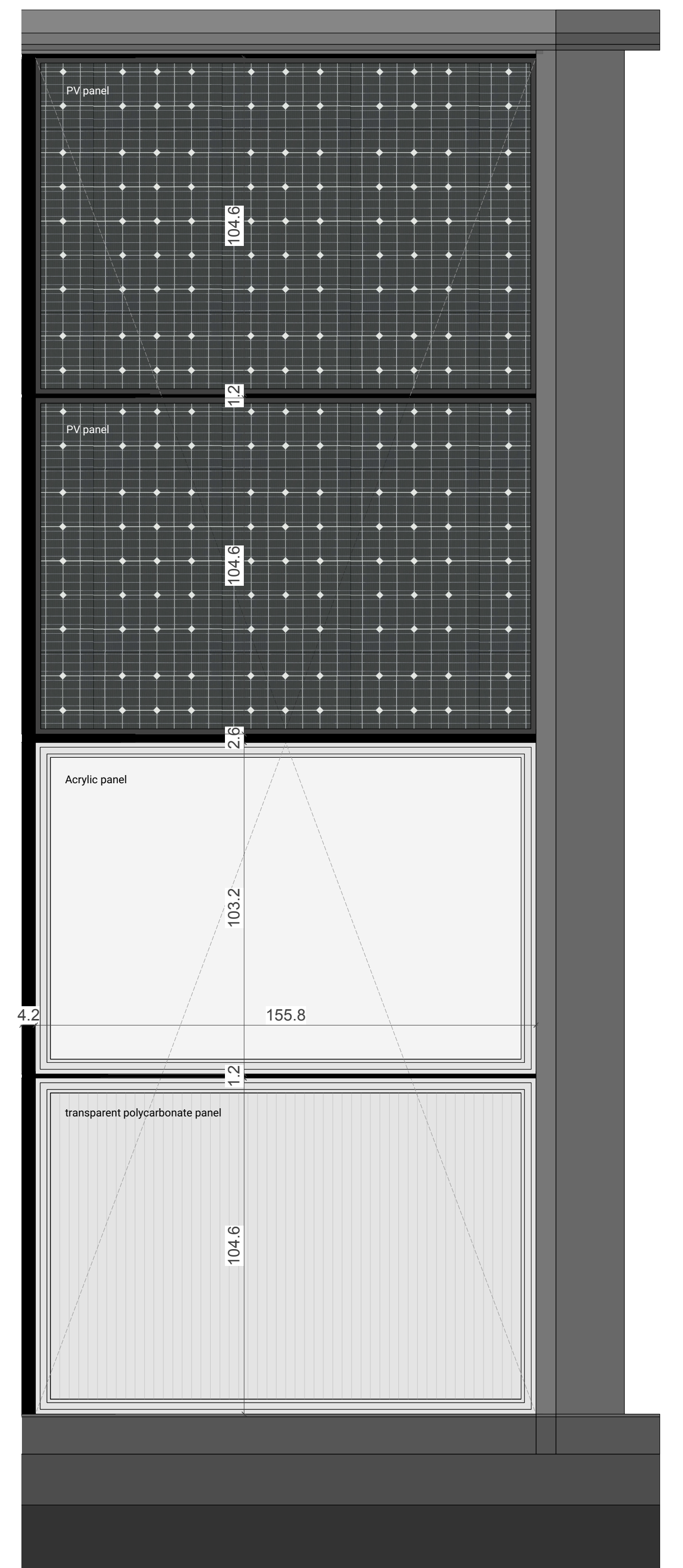
A-661



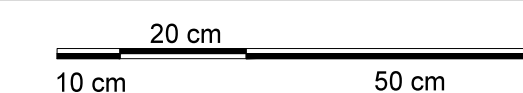
A1 SKIN DETAILS - service door elevation



A3 SKIN DETAILS - fixed parts elevation



A5 SKIN DETAILS - folding door elevation



Swiss Living Challenge



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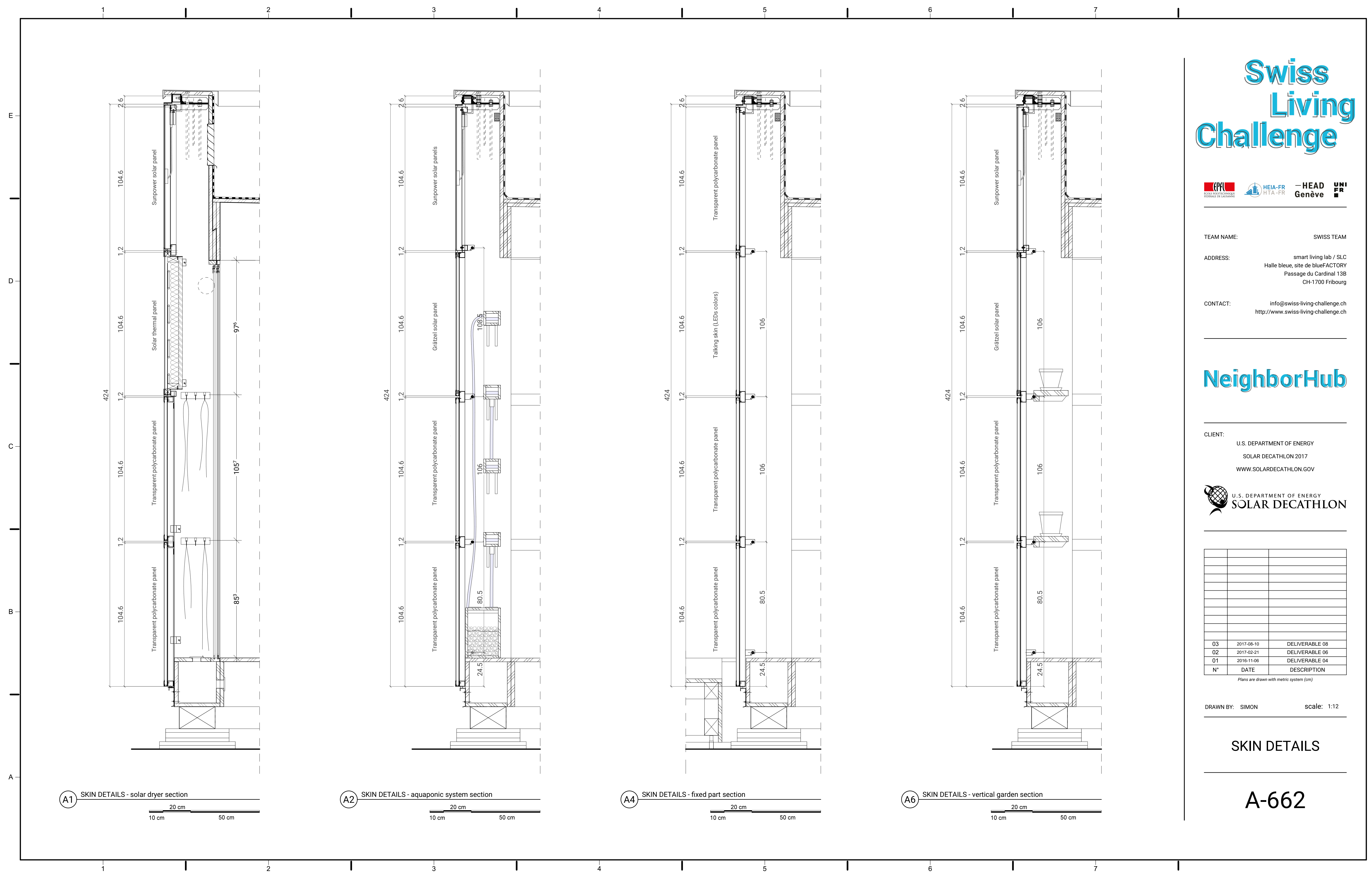
N°	DATE	DESCRIPTION
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:12

SKIN DETAILS

A-662



A1 SKIN DETAILS - solar dryer section
20 cm
10 cm 50 cm

A2 SKIN DETAILS - aquaponic system section
20 cm
10 cm 50 cm

A4 SKIN DETAILS - fixed part section
20 cm
10 cm 50 cm

A6 SKIN DETAILS - vertical garden section
20 cm
10 cm 50 cm

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CH-1700 Fribourg

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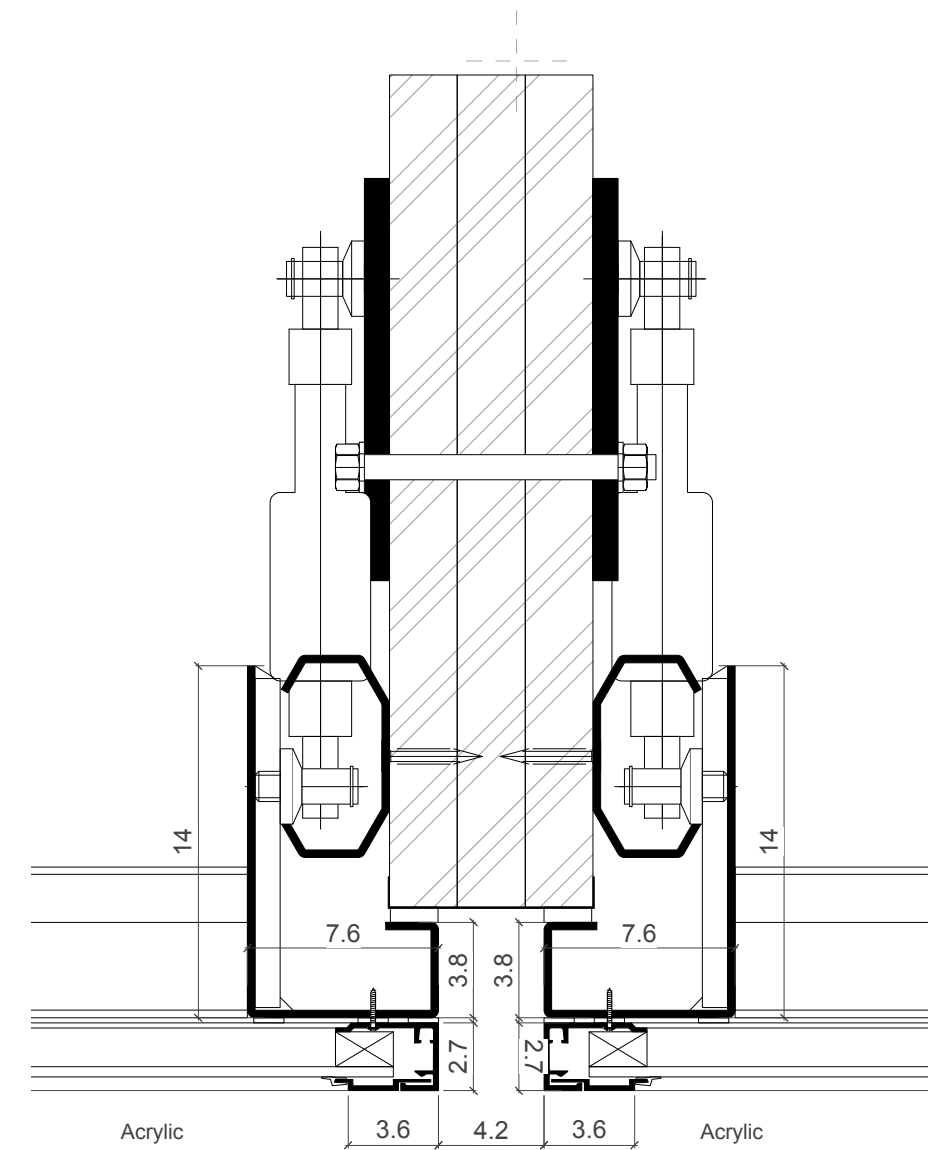
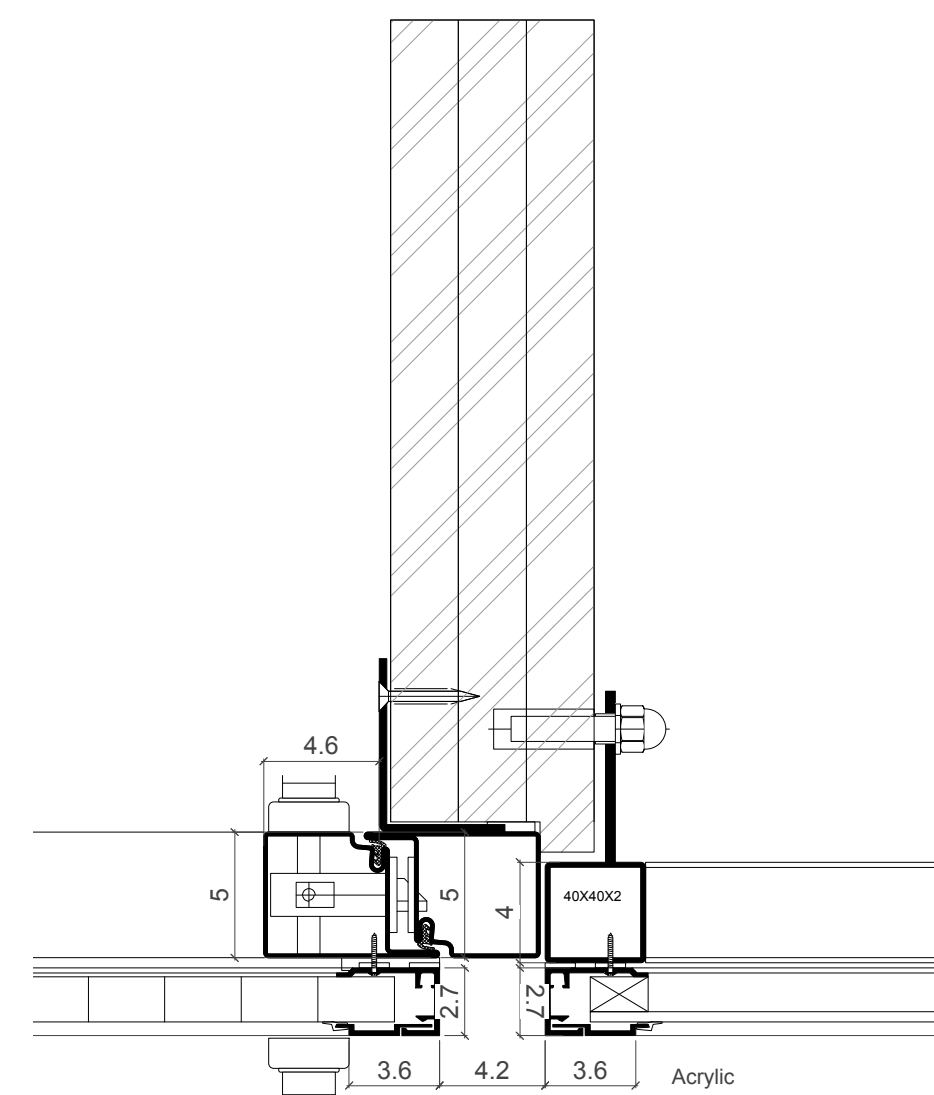
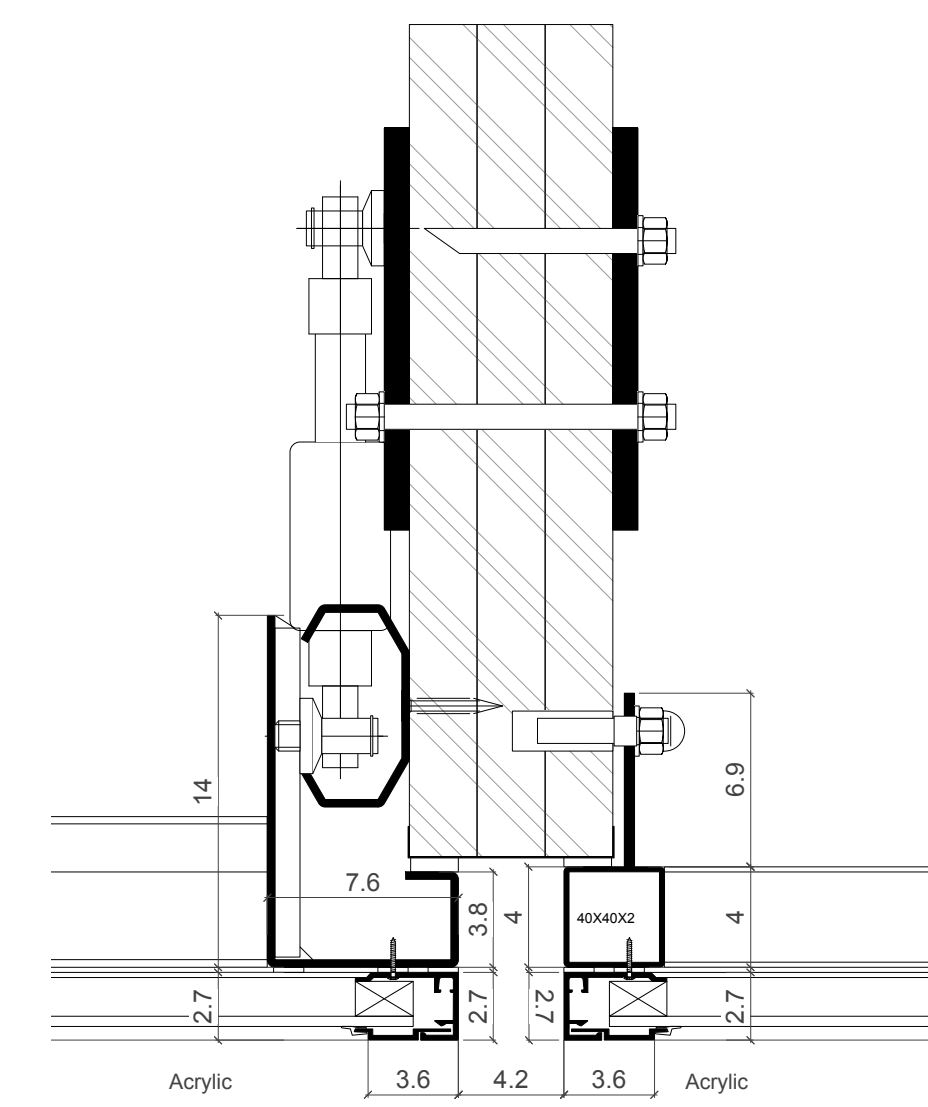
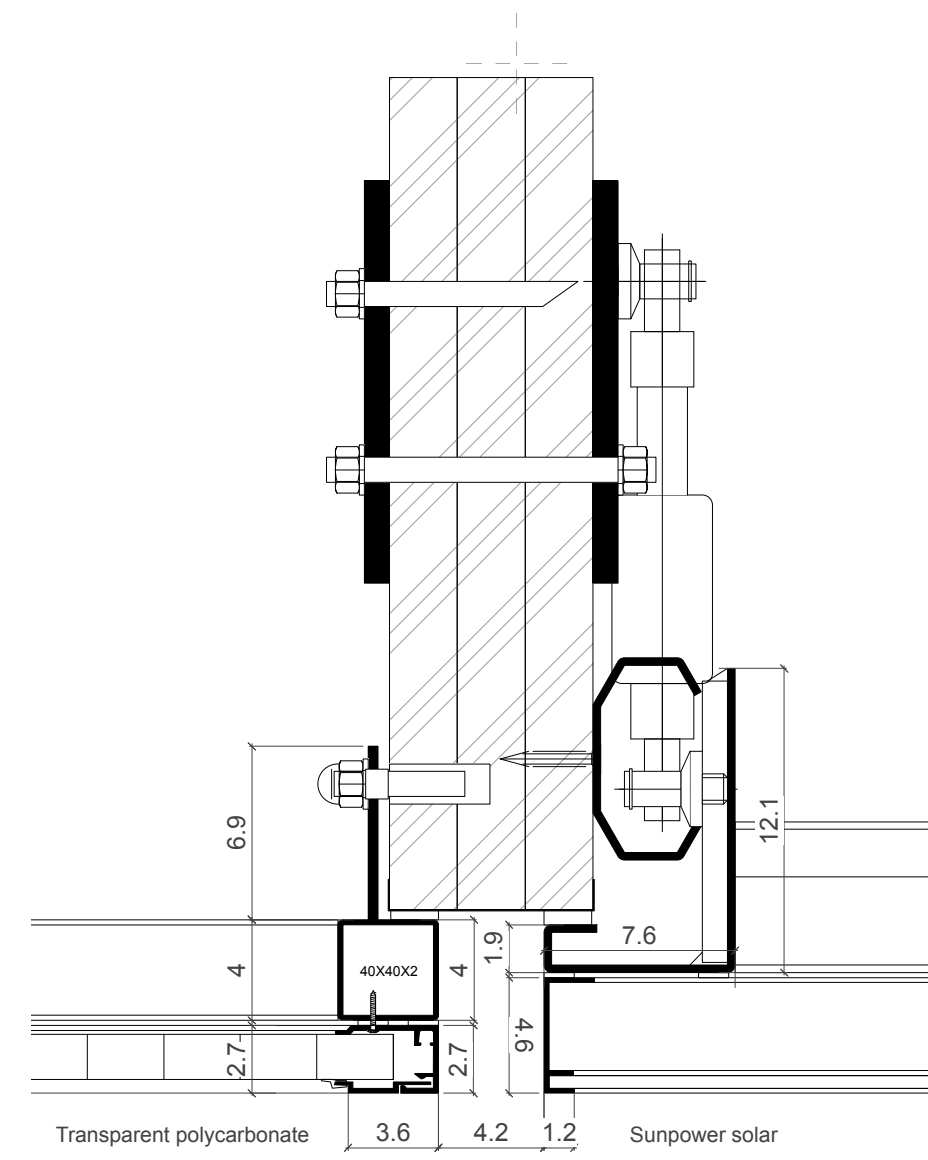
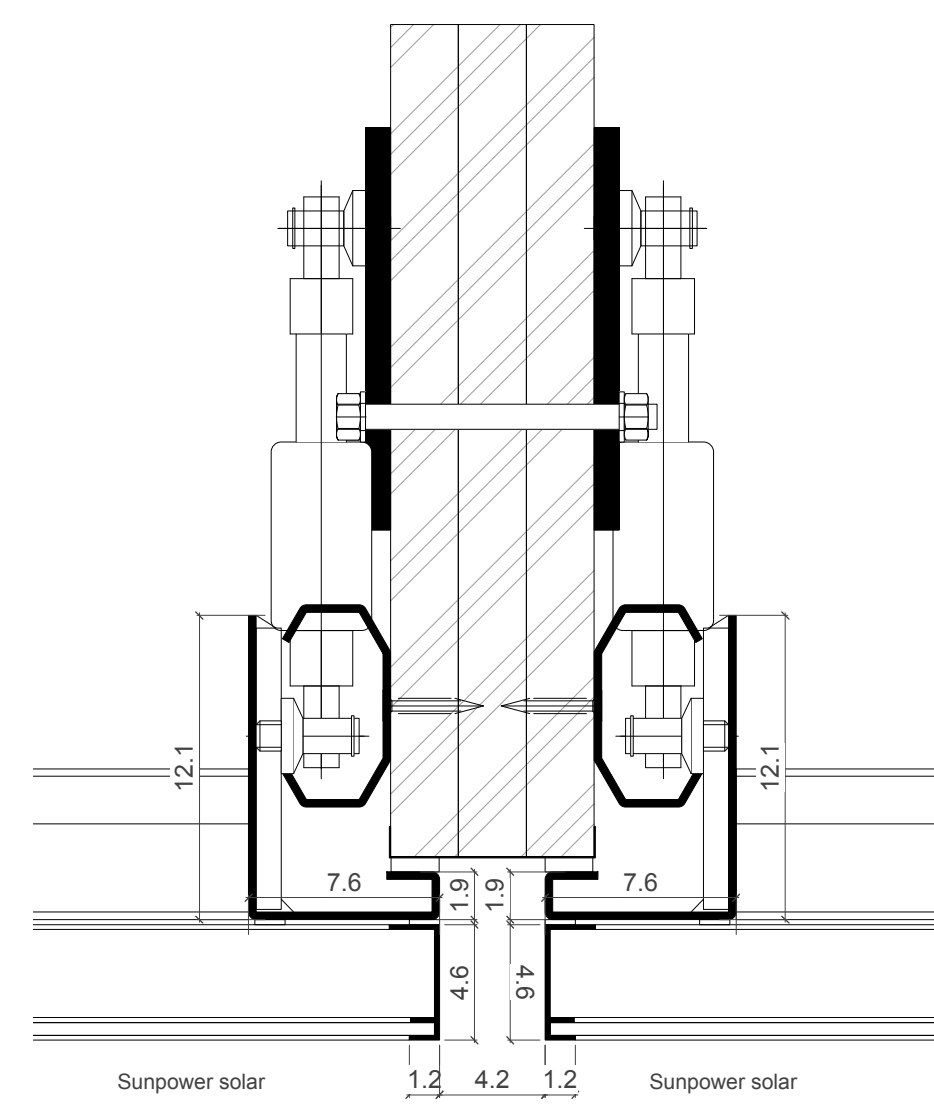
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: MEYS scale: 1:12

SKIN DETAILS

A-664



A2 SKIN DETAILS - mobile parts plans

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Passage du Cardinal 13B
CH-1700 Fribourg

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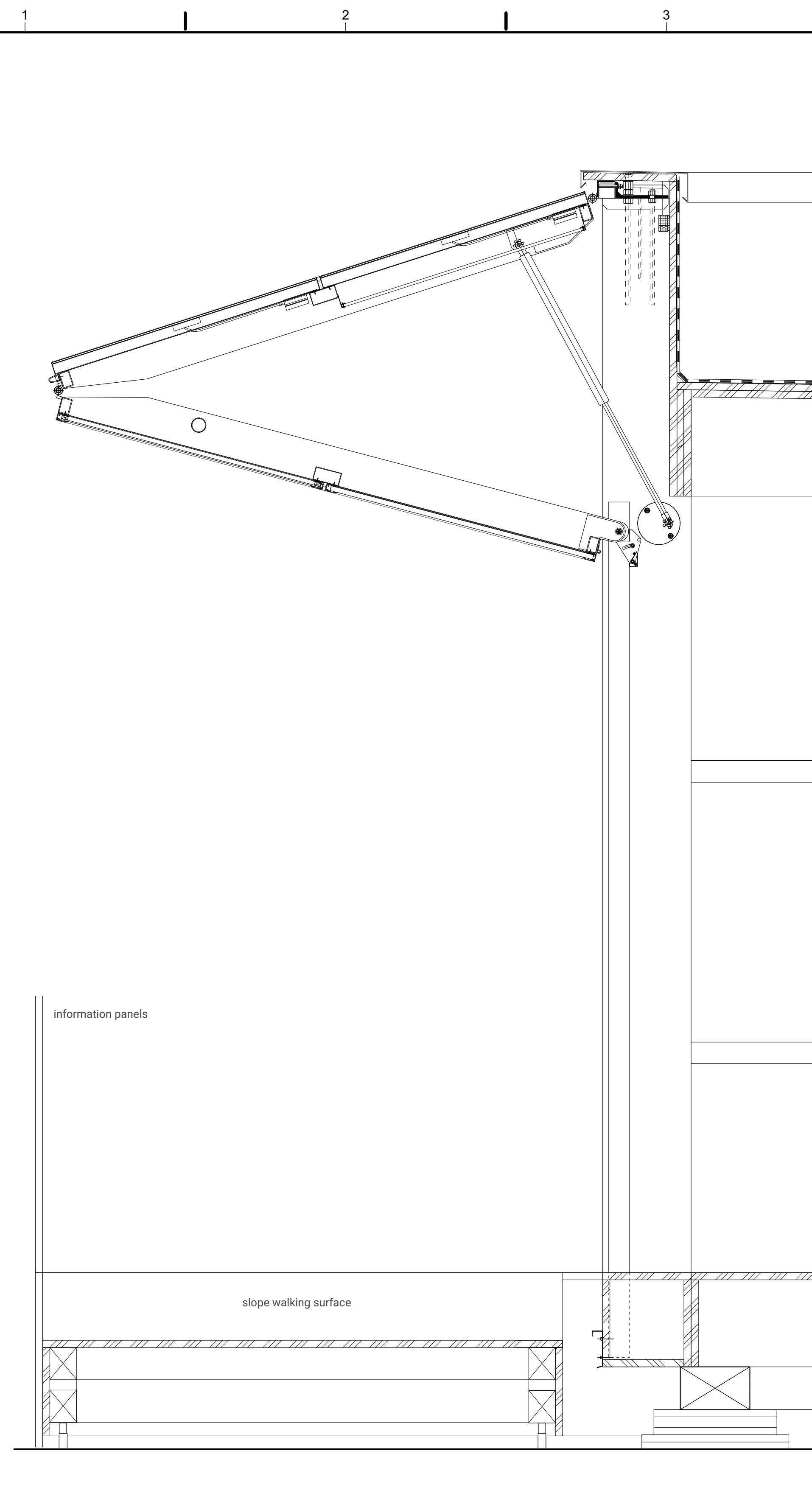
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Plans are drawn with metric system (cm)

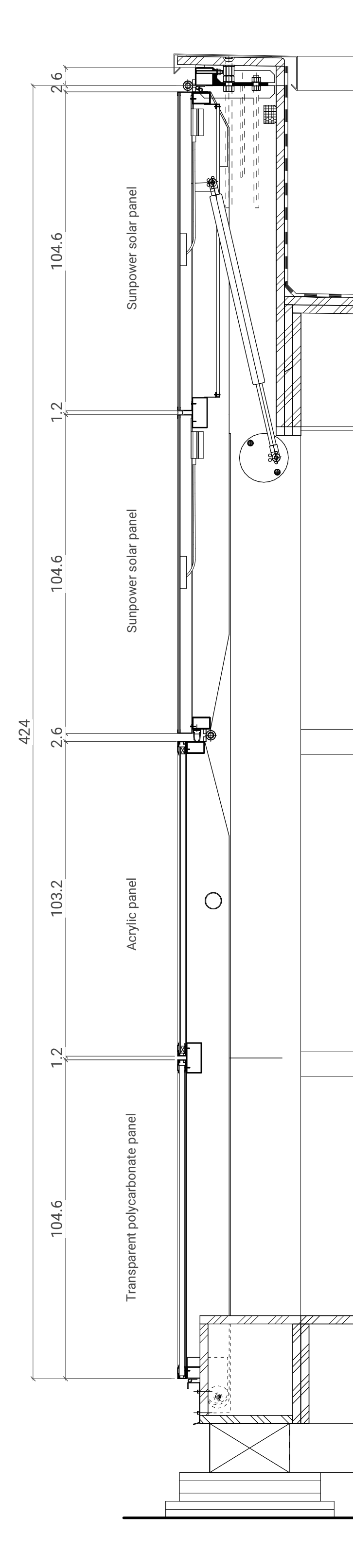
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SKIN DETAILS

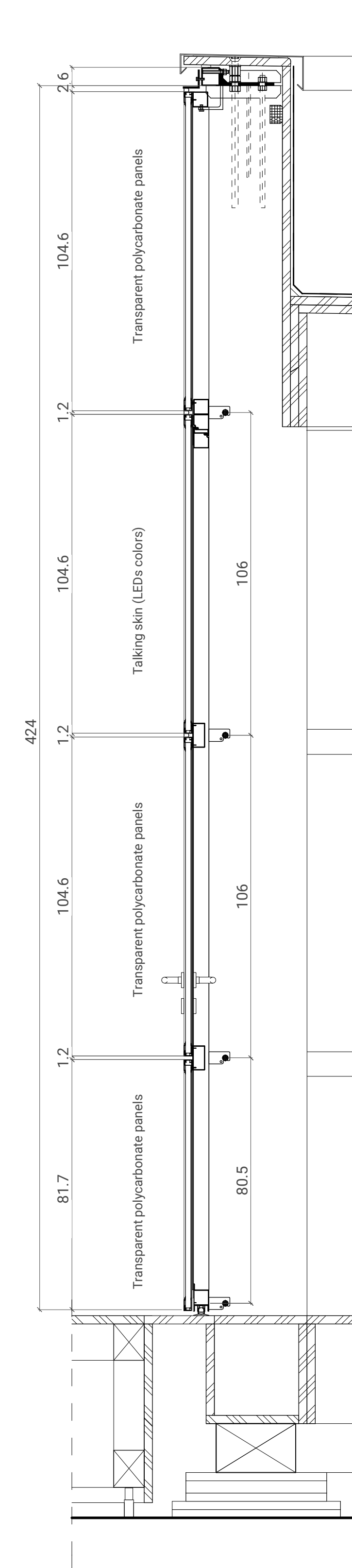
A-665



A1 SKIN DETAILS - folding door sections



A6 SKIN DETAILS - service door section



A6 SKIN DETAILS - service door section

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N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE 08

Plans are drawn with metric system (cm)

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SOLAR DRYER DETAILS

A-666



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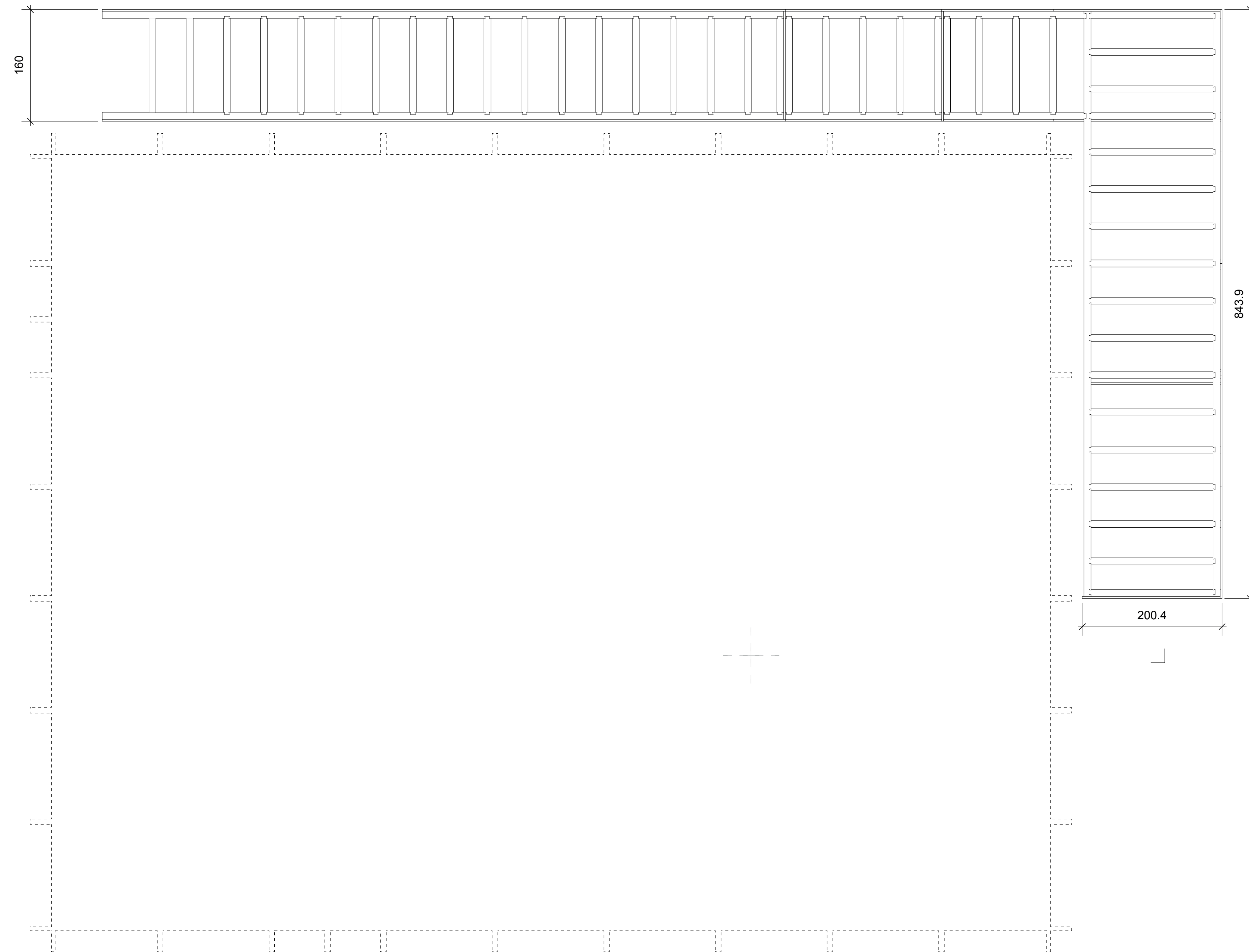
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Plans are drawn with metric system (cm)

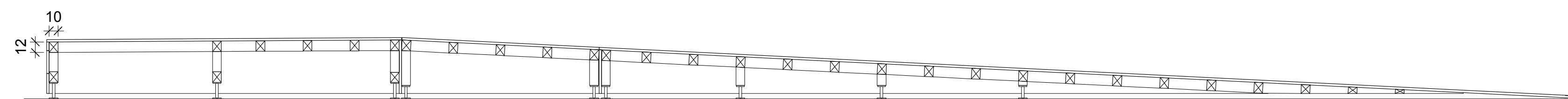
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SLOPED WALKING SURFACE DETAILS

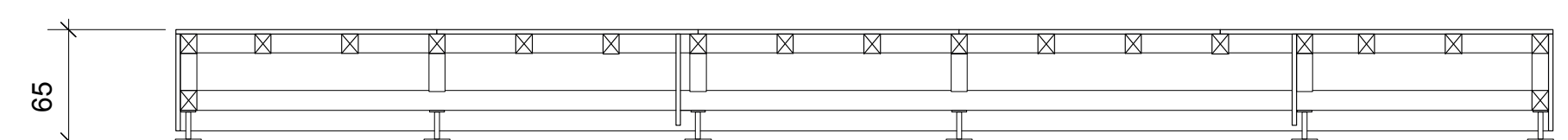
A-691



B1 SLOPED WALKING SURFACE PLAN



A1 SLOPED WALKING SURFACE SECTION



A2 SLOPED WALKING SURFACE SECTION

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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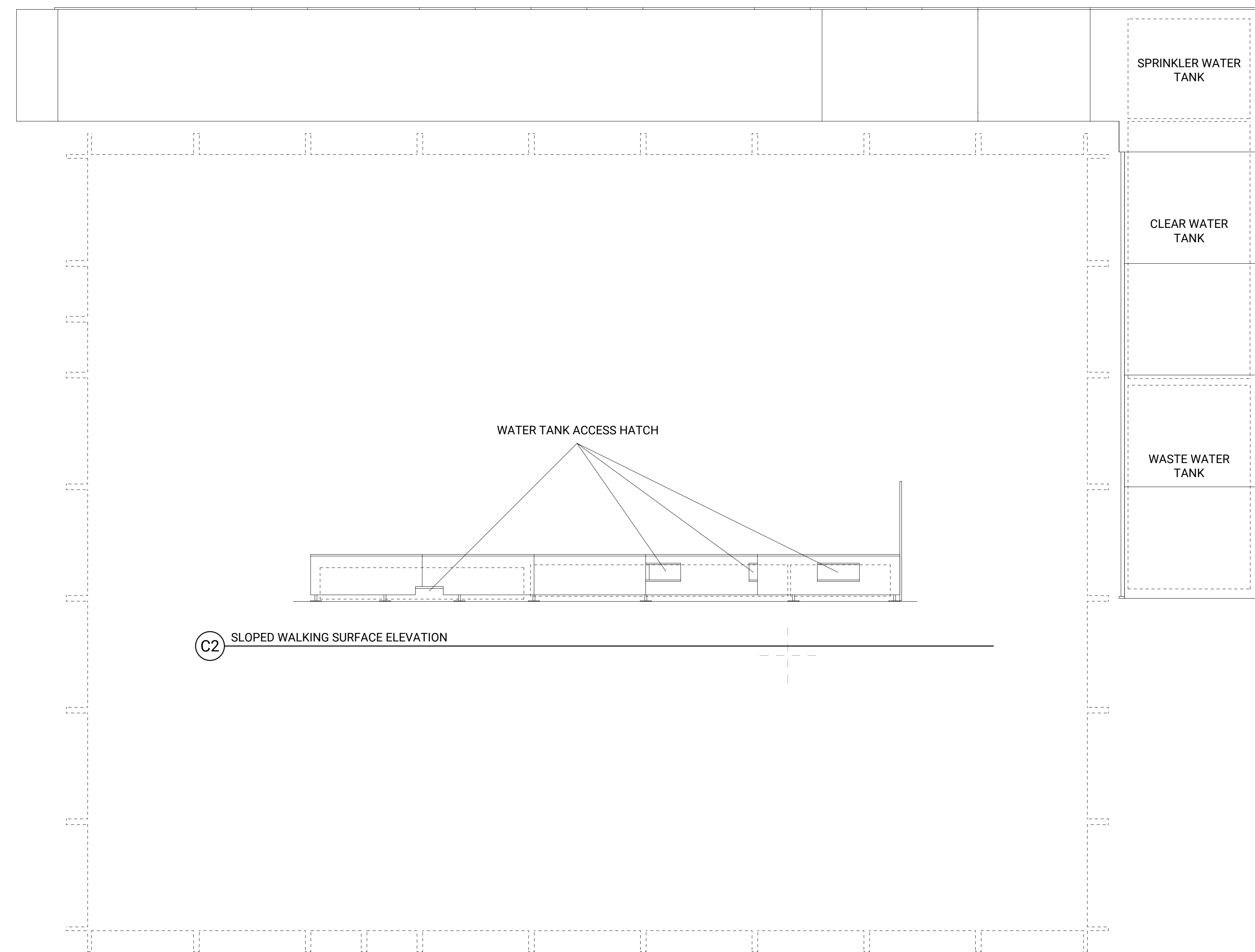
N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE 08
02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SAUTHIER scale: 1:20

SLOPED WALKING SURFACE DETAILS

A-692



C2 SLOPED WALKING SURFACE ELEVATION

B1 SLOPED WALKING SURFACE PLAN

A1 SLOPED WALKING SURFACE SECTION

A1 SLOPED WALKING SURFACE ELEVATION

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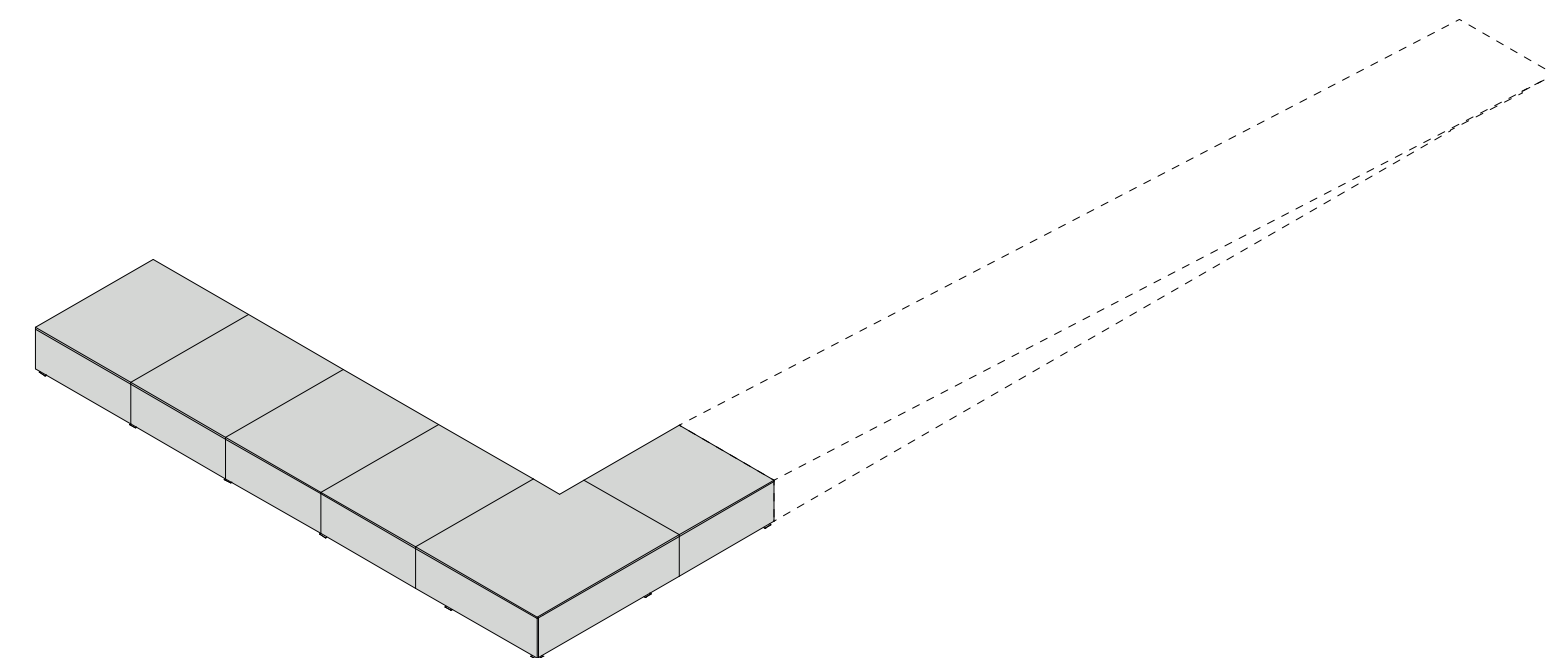
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

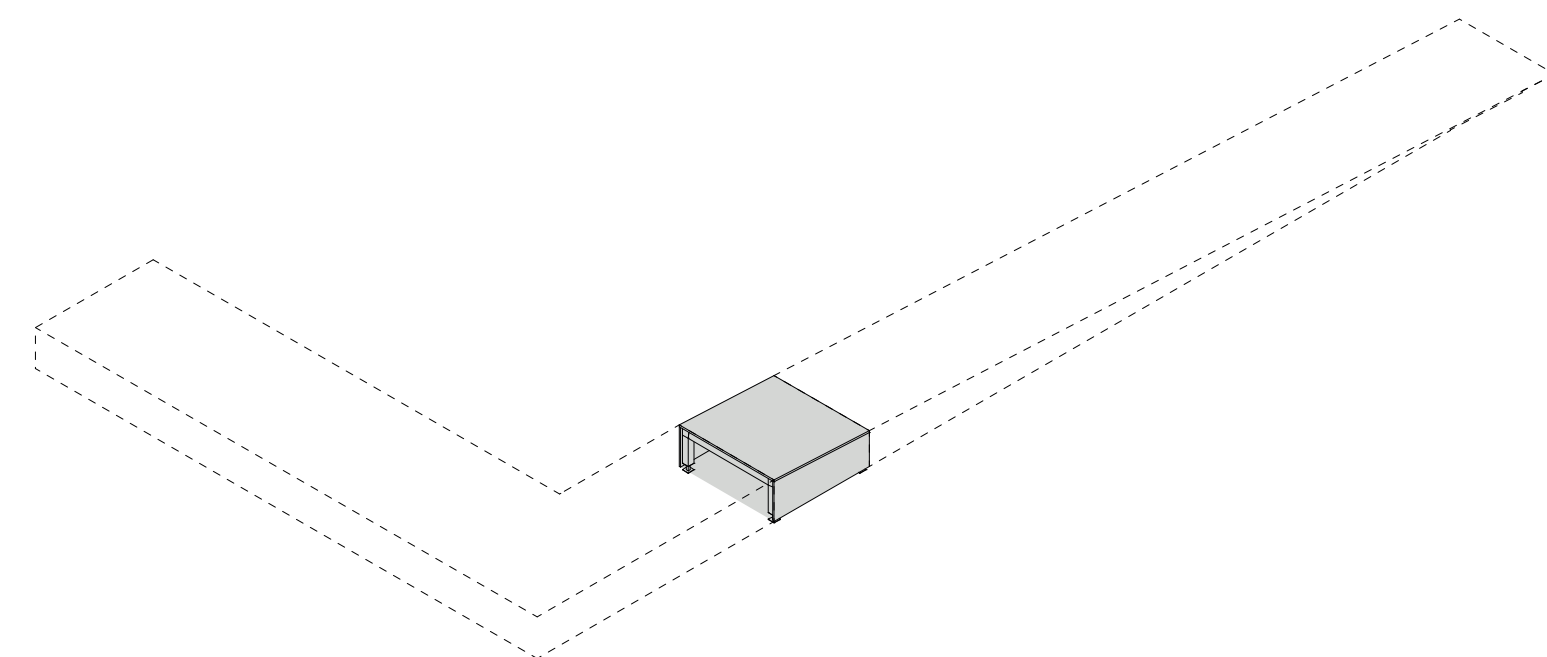
DRAWN BY: SAUTHIER scale: NO

SLOPED WALKING SURFACE DETAILS

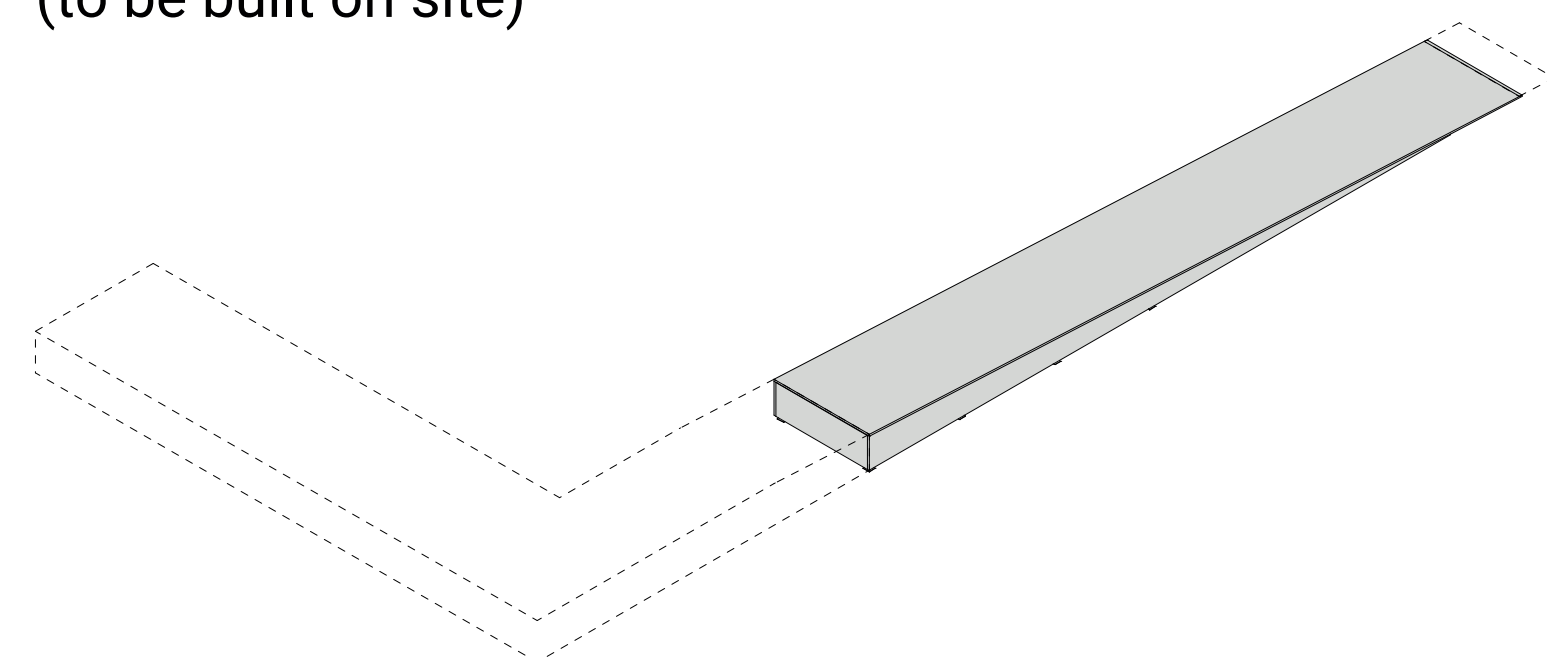
A-693



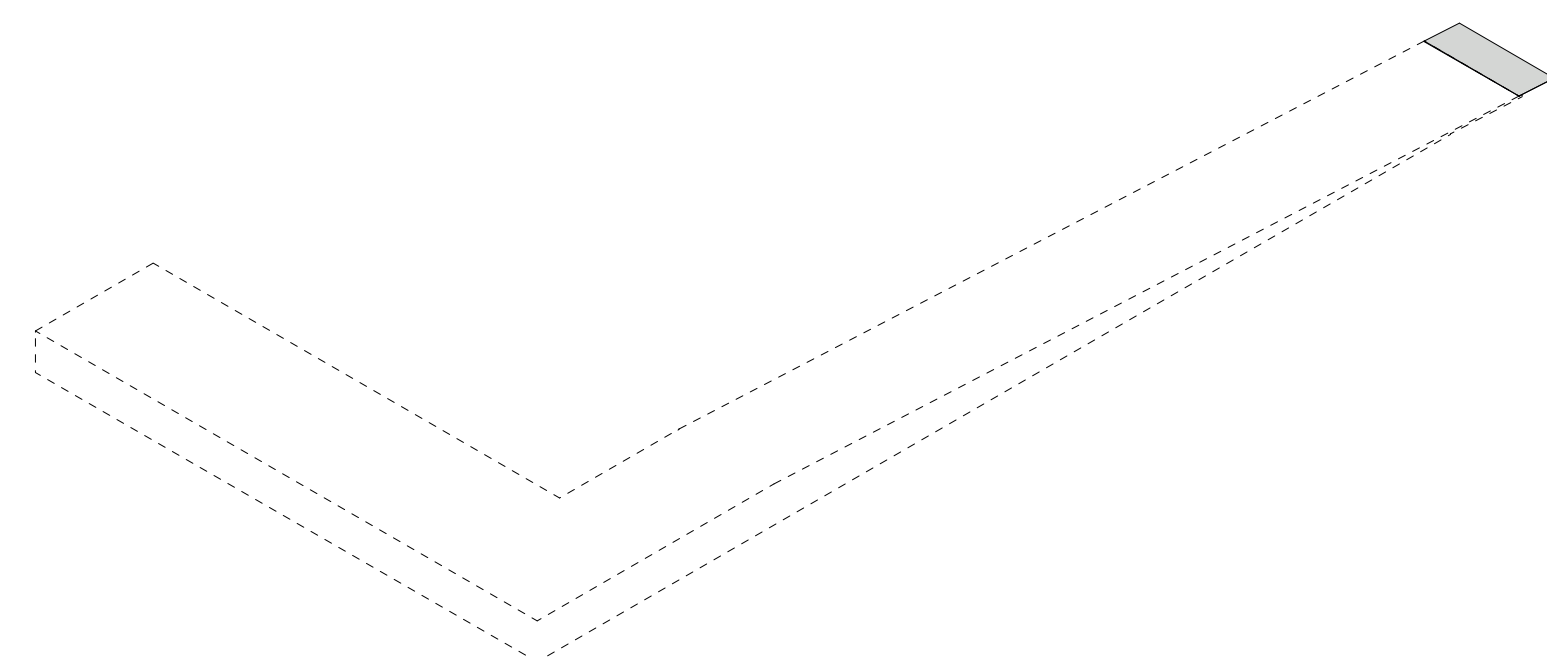
Module 1
prefabricated deck



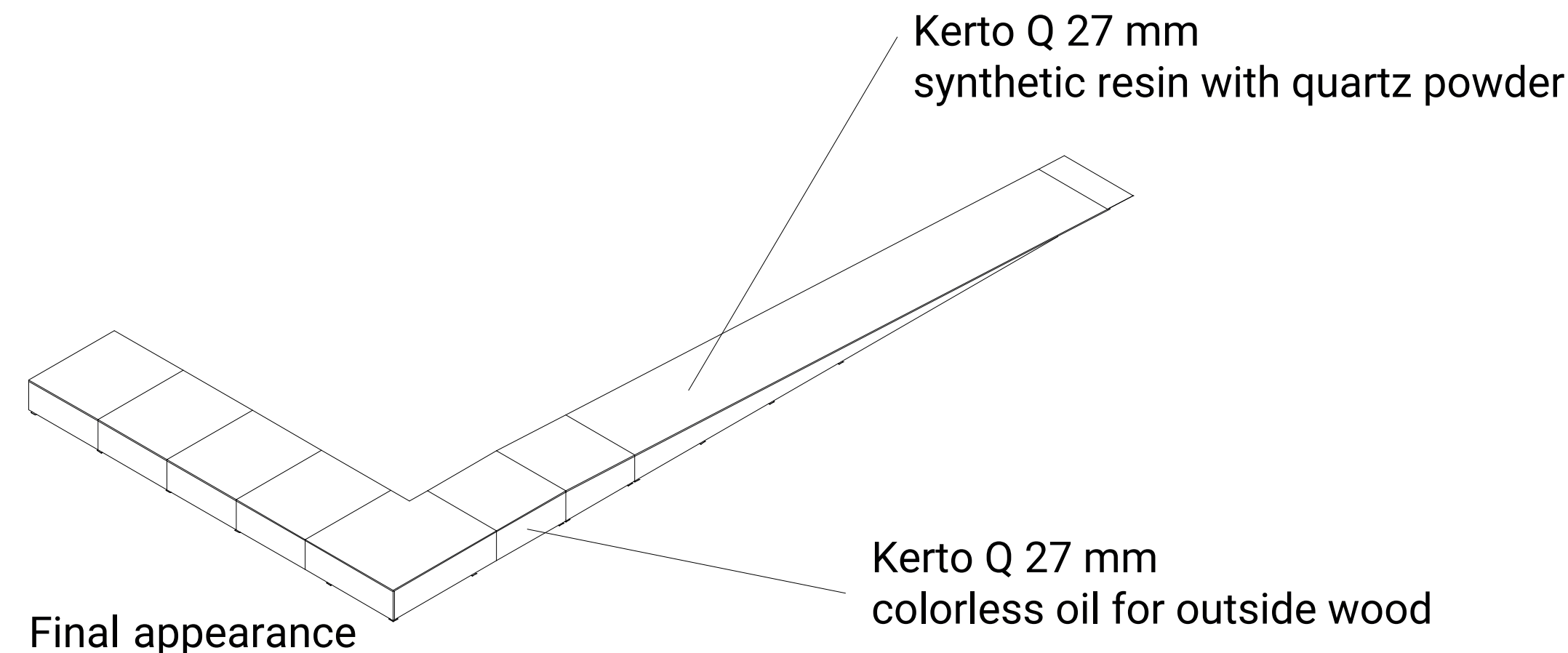
Module 2
adjustment additional module
(to be built on site)



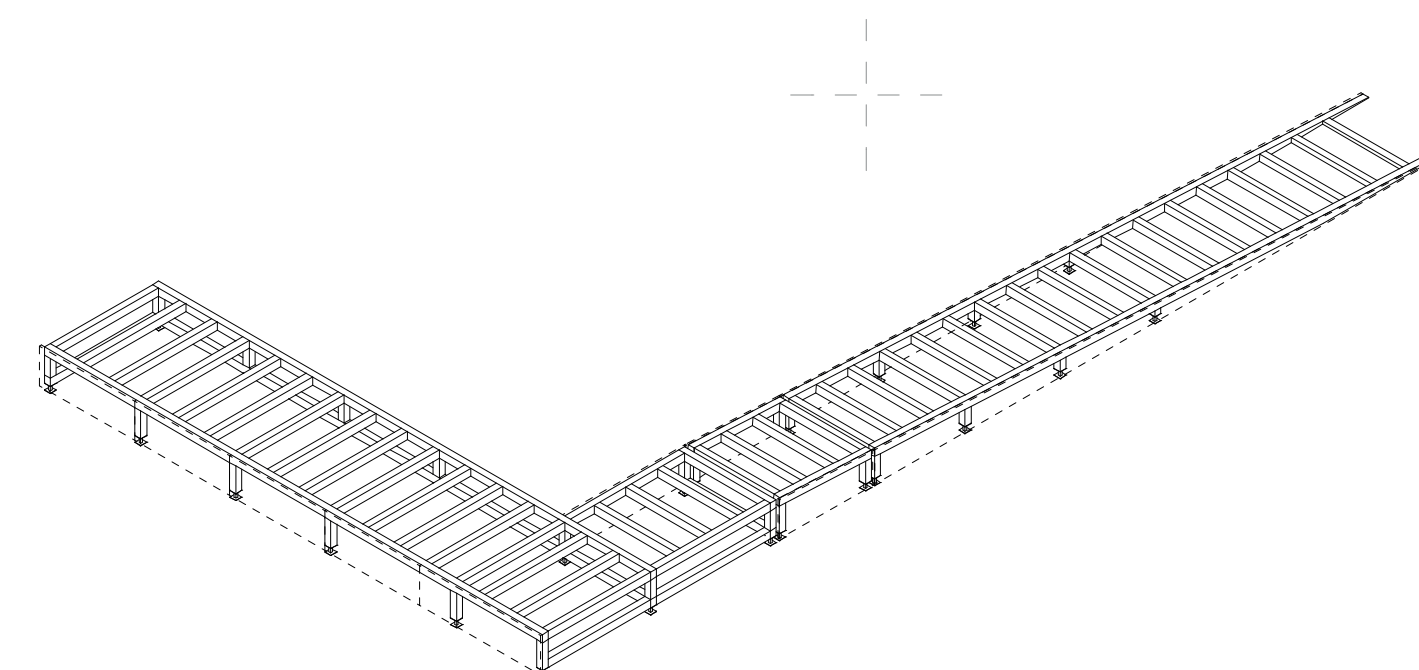
Module 3
prefabricated sloped walking surface



Module 4
metal plate



Final appearance



Wood beam-column structure

Adaptability:

- adjustable feet to adapt the sloped walking surface to small differences of levels
- in case of an ideal ground (difference of 65cm between the finished ground and the natural ground), we use 3 modules (deck module, adjustment module and slope module) and a metal plate at the end.
- in case of a lower natural ground (difference from 65cm to 76,5 cm between the finished ground and the natural ground), the sloped walking surface is moved to the west of 2.2 m and an additional module is added.
- the additional module will be built on site in order to adapt it to the exact slope.



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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03	2017-08-10	DELIVERABLE 08
02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: NO

HOUSE RENDERING

A-901

A1 HOUSE RENDERING - skin doors closed

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CH-1700 Fribourg

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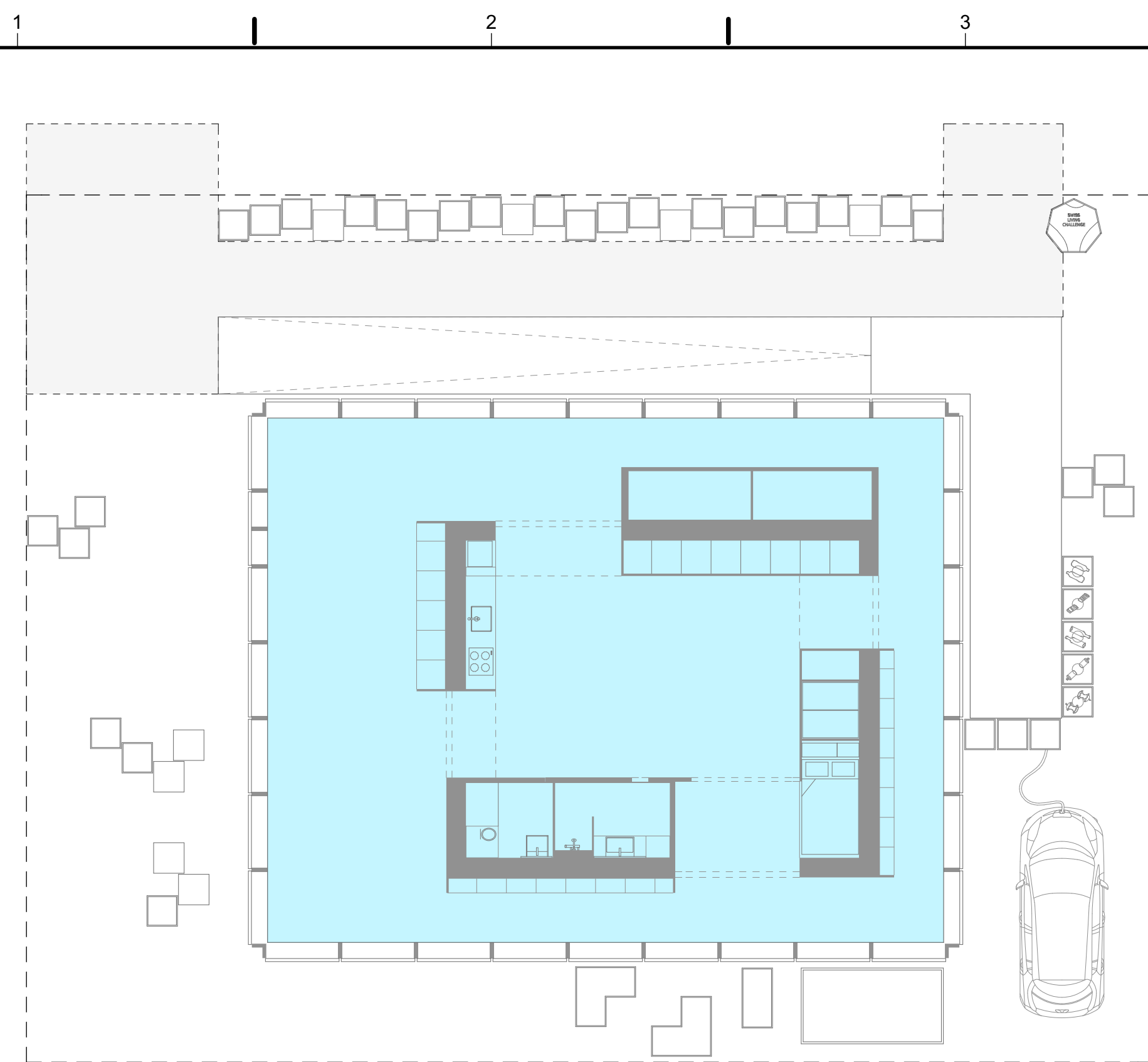
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

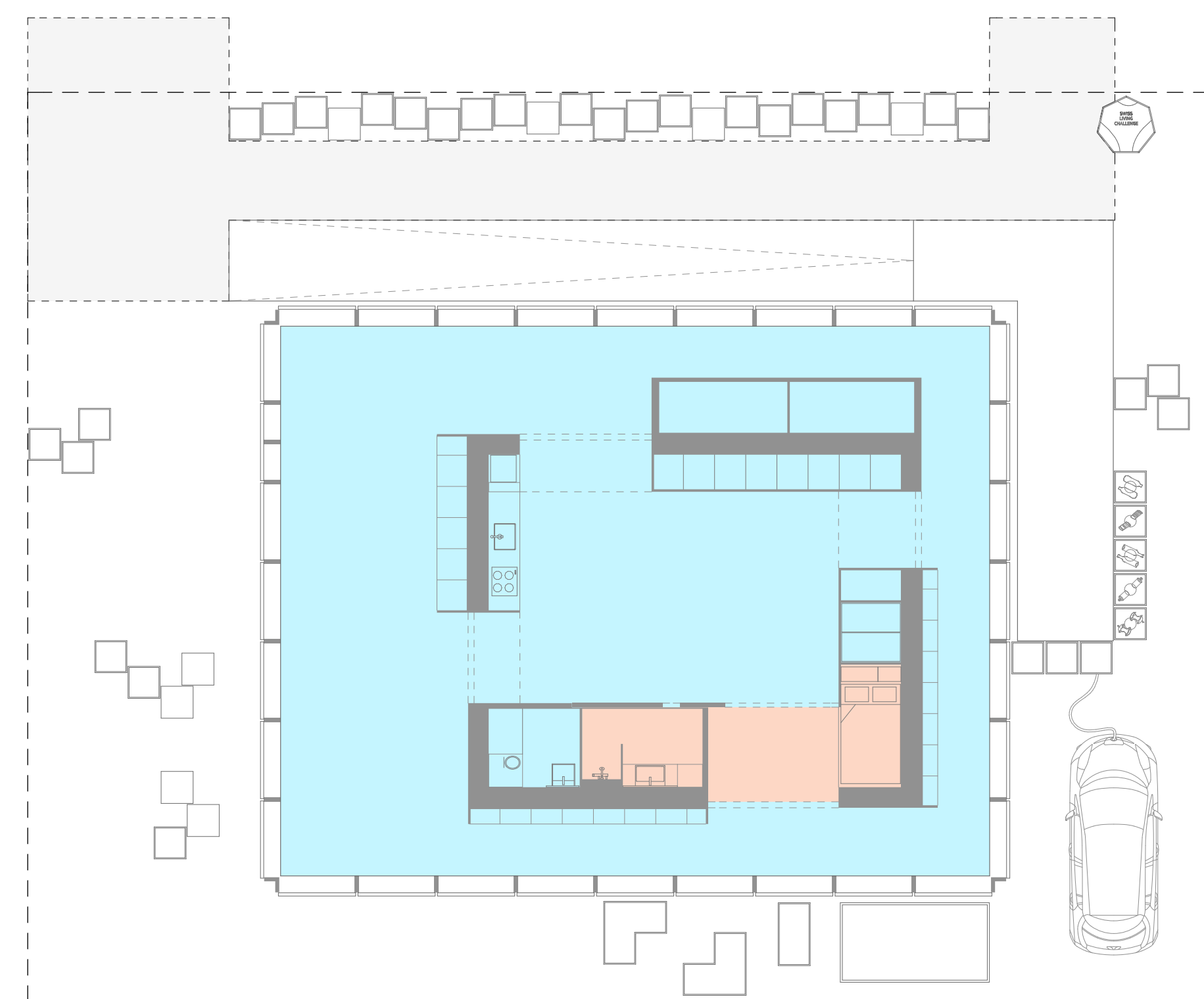
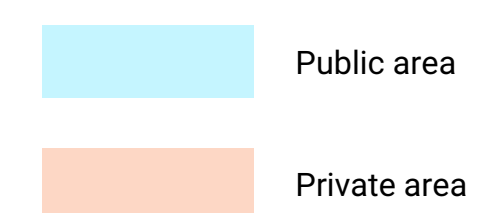
DRAWN BY: SIMON scale: NO

PUBLIC/PRIVATE CONFIGURATIONS

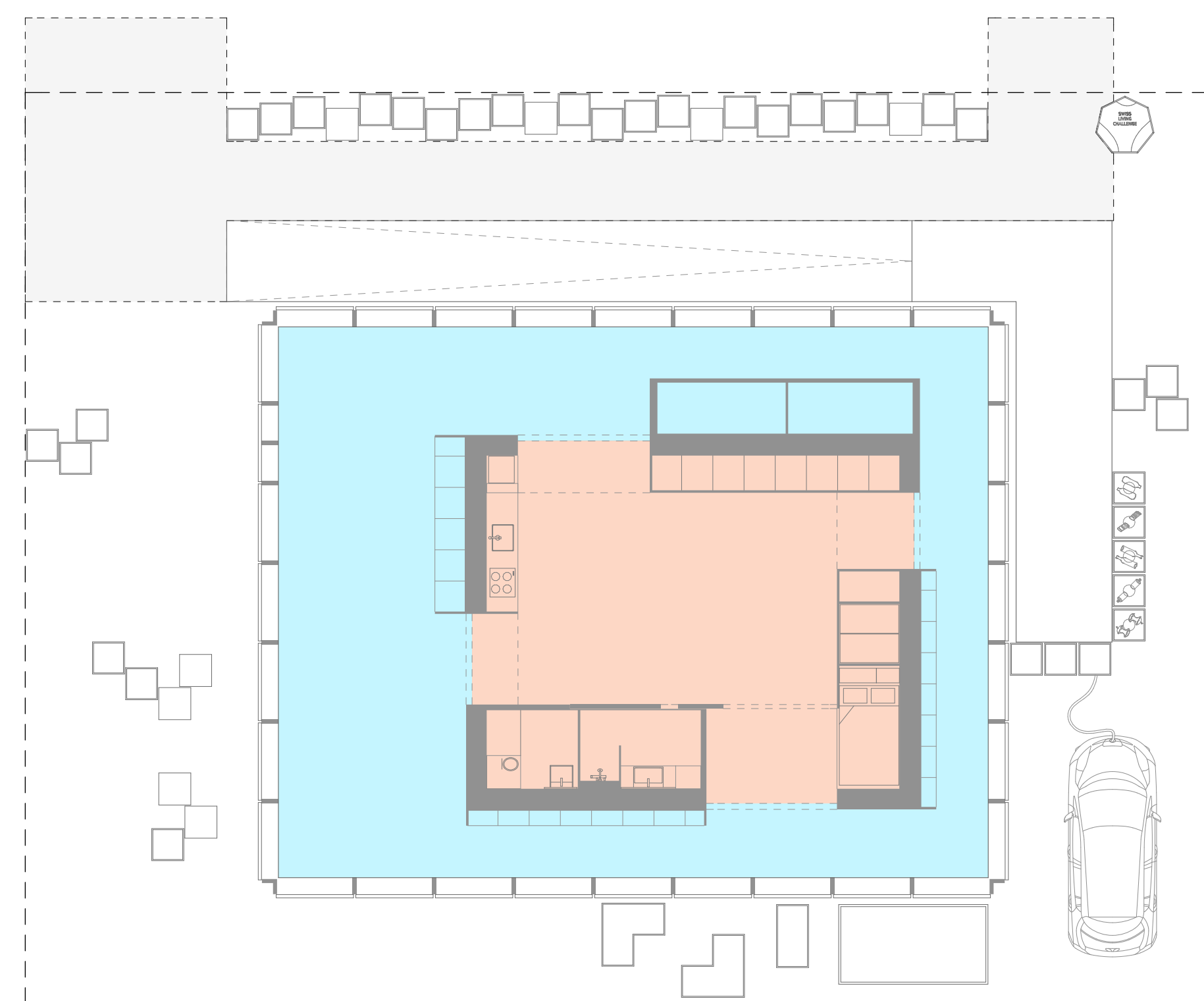
I-101



C1 PUBLIC/PRIVATE CONFIGURATIONS PLAN - public configuration



A1 PUBLIC/PRIVATE CONFIGURATIONS PLAN - semi-private configuration



A5 PUBLIC/PRIVATE CONFIGURATIONS PLAN - private configuration

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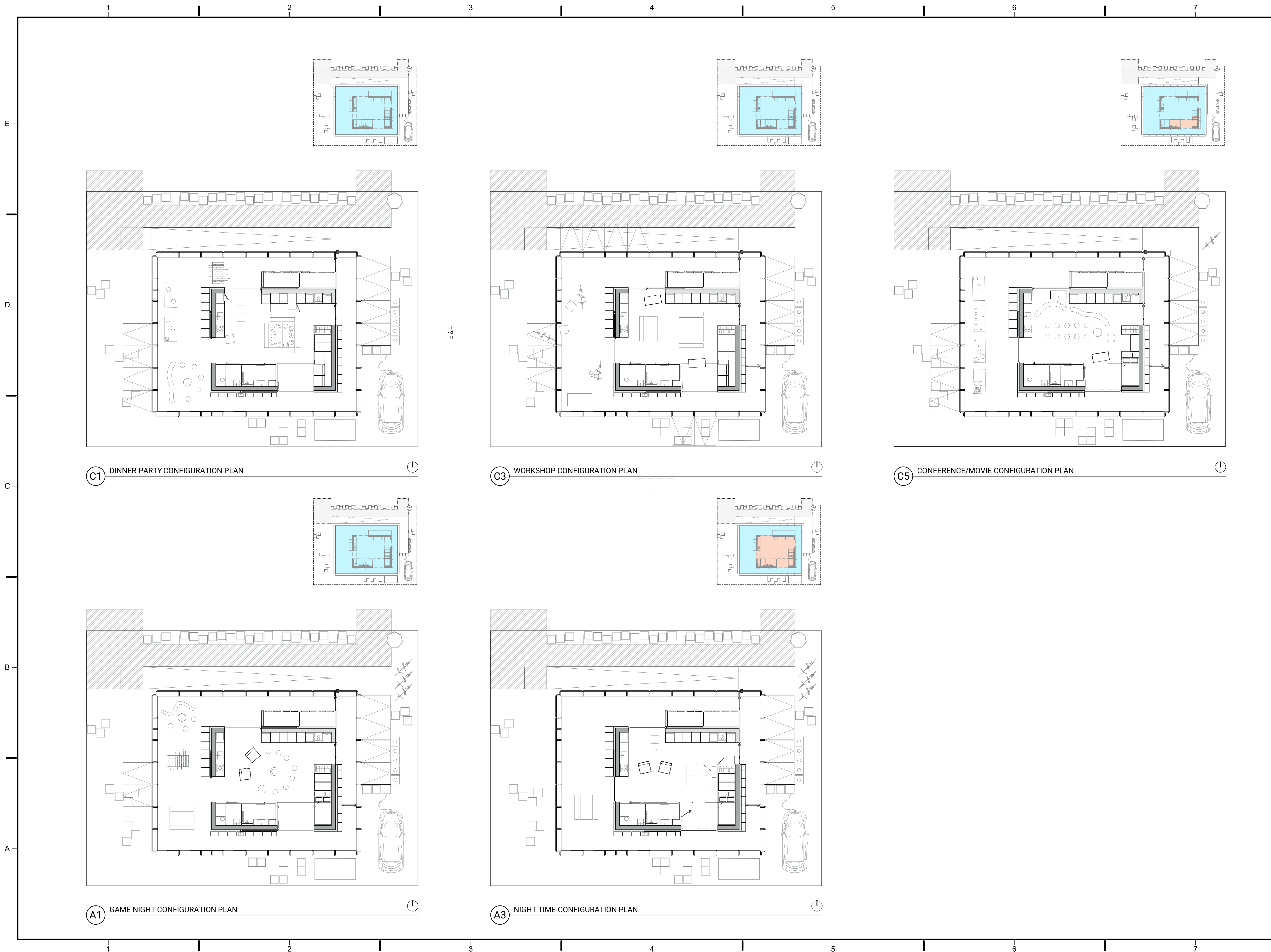
N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE 08
02	2017-02-19	DELIVERABLE 06

Plans are drawn with metric system (cm)

DRAWN BY: SAUTIER scale: NO

SCENARIOS CONFIGURATIONS

I-102



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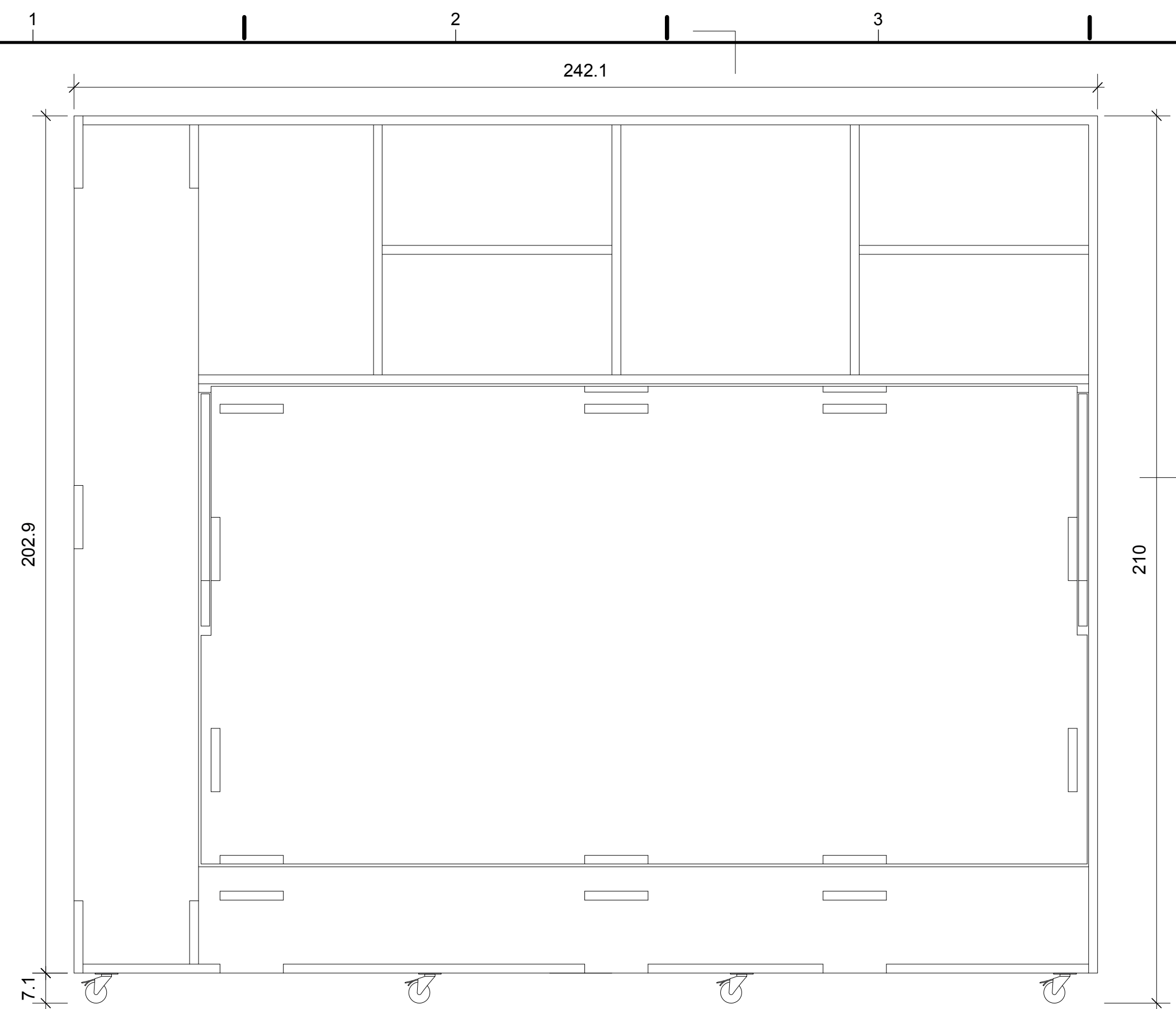
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

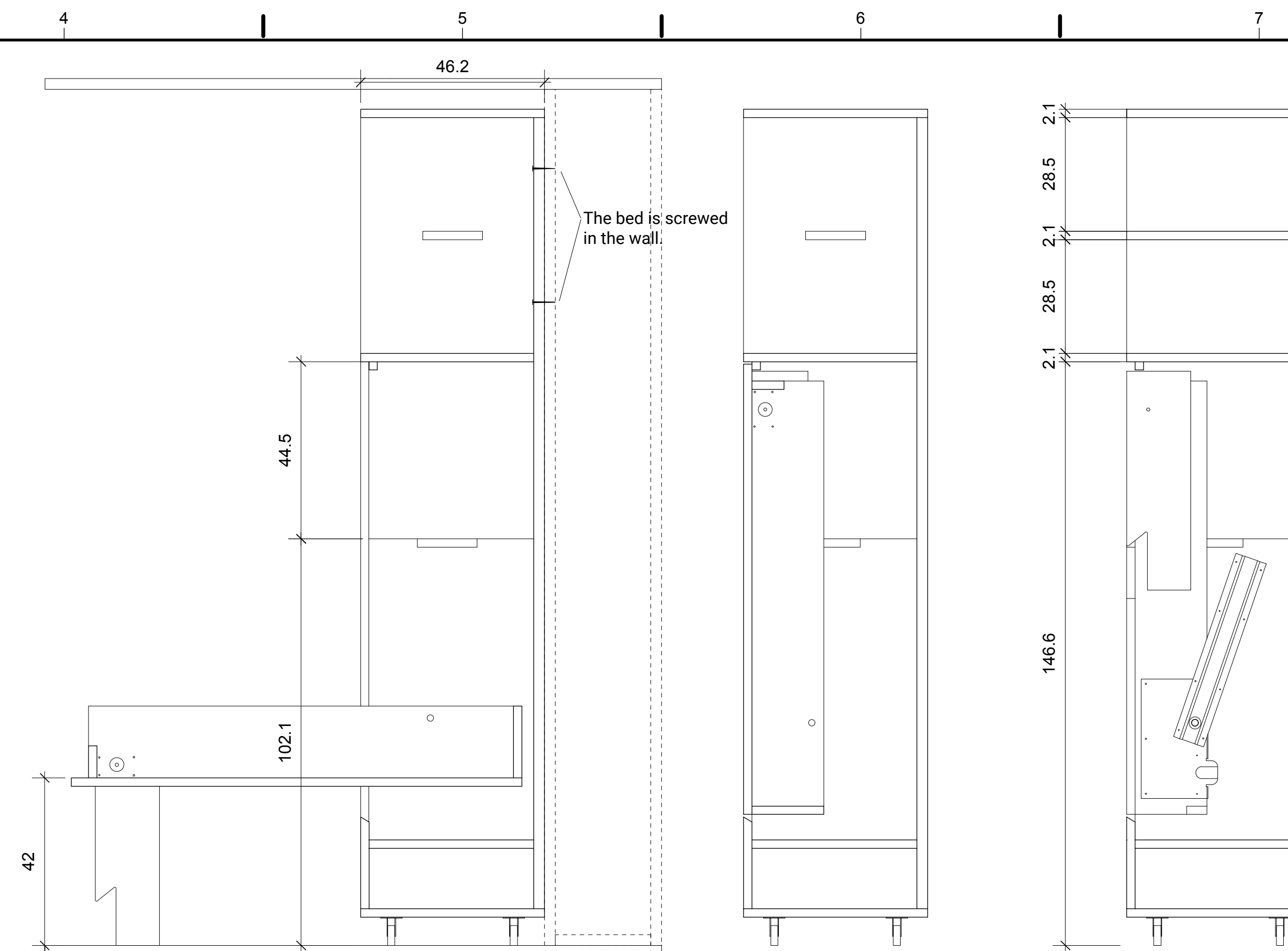
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FURNITURE LAYOUT

I-201



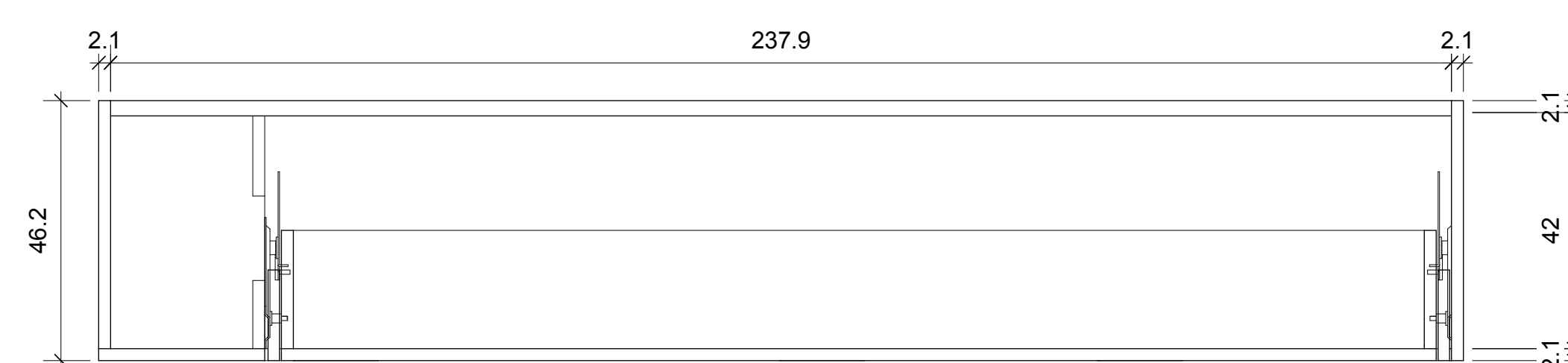
C1 BED MODULE - ELEVATION



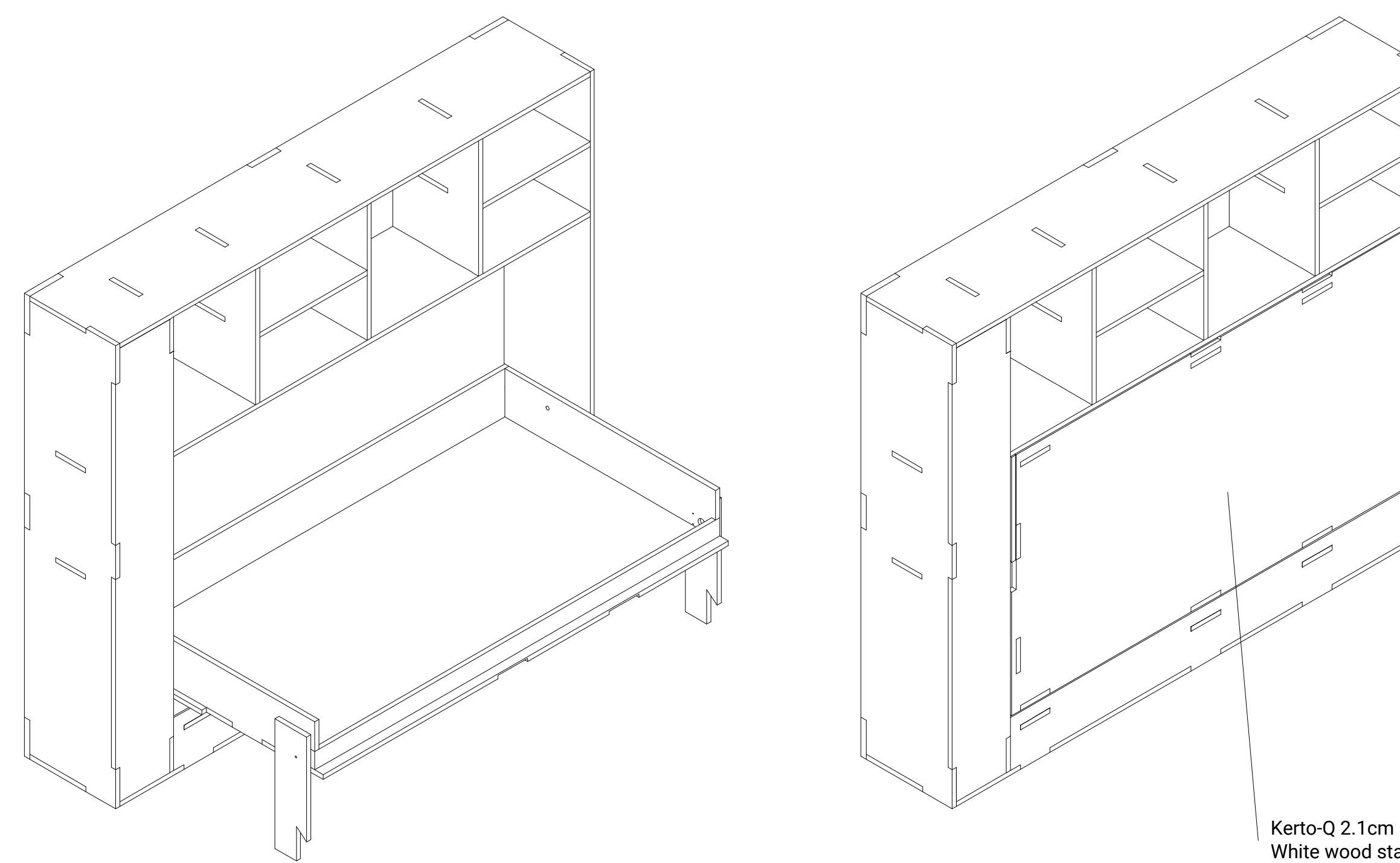
C4 BED MODULE - OPENED AND CLOSED CONFIGURATIONS SECTIONS



B1 BED MODULE - OPENED BED (BEDROOM CONFIGURATION)



A1 BED MODULE - CLOSED BED (LIVING ROOM CONFIGURATION)



A4 BED MODULE - OPENED AND CLOSED CONFIGURATIONS AXONOMETRY

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CH-1700 Fribourg

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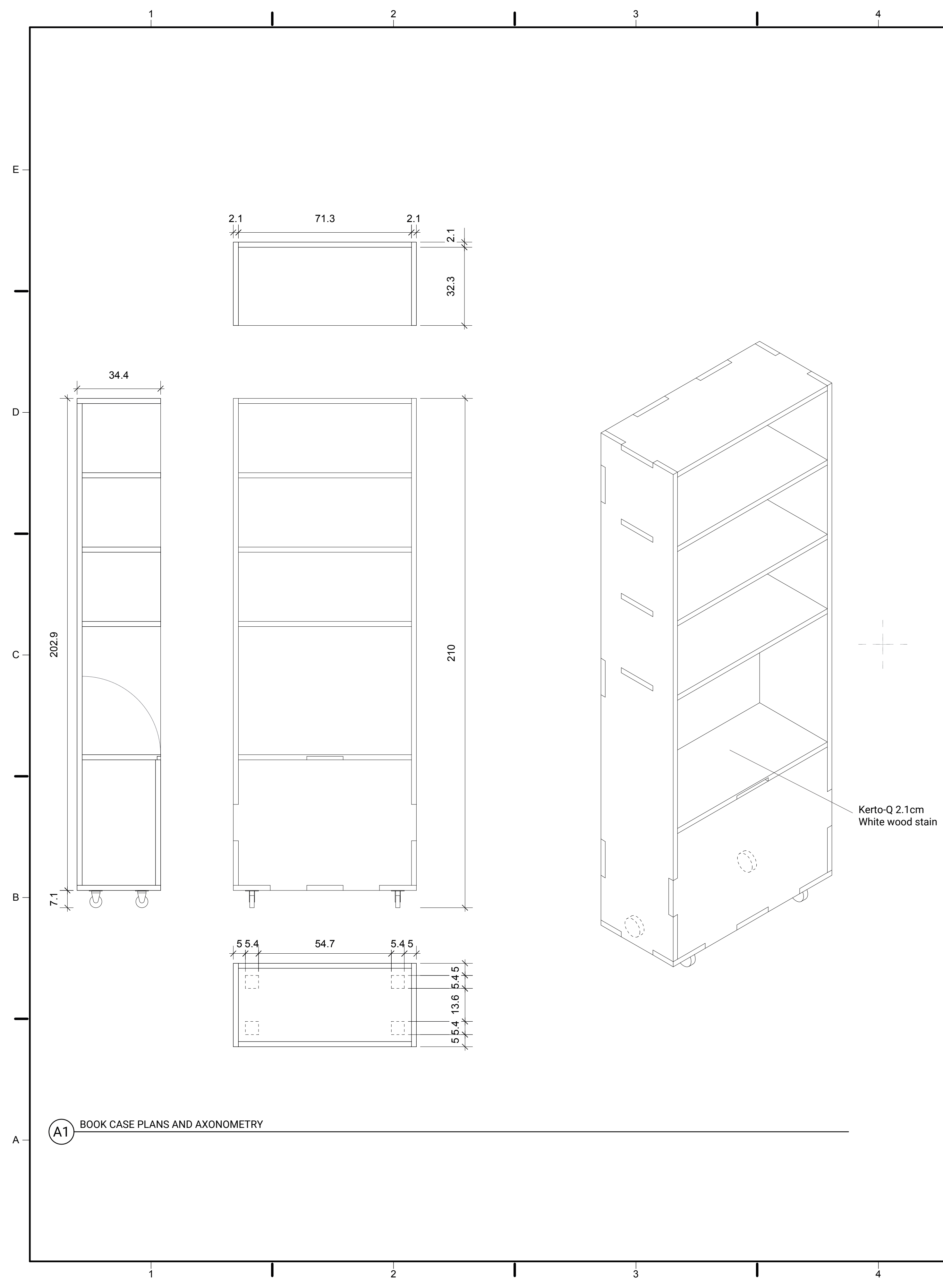
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

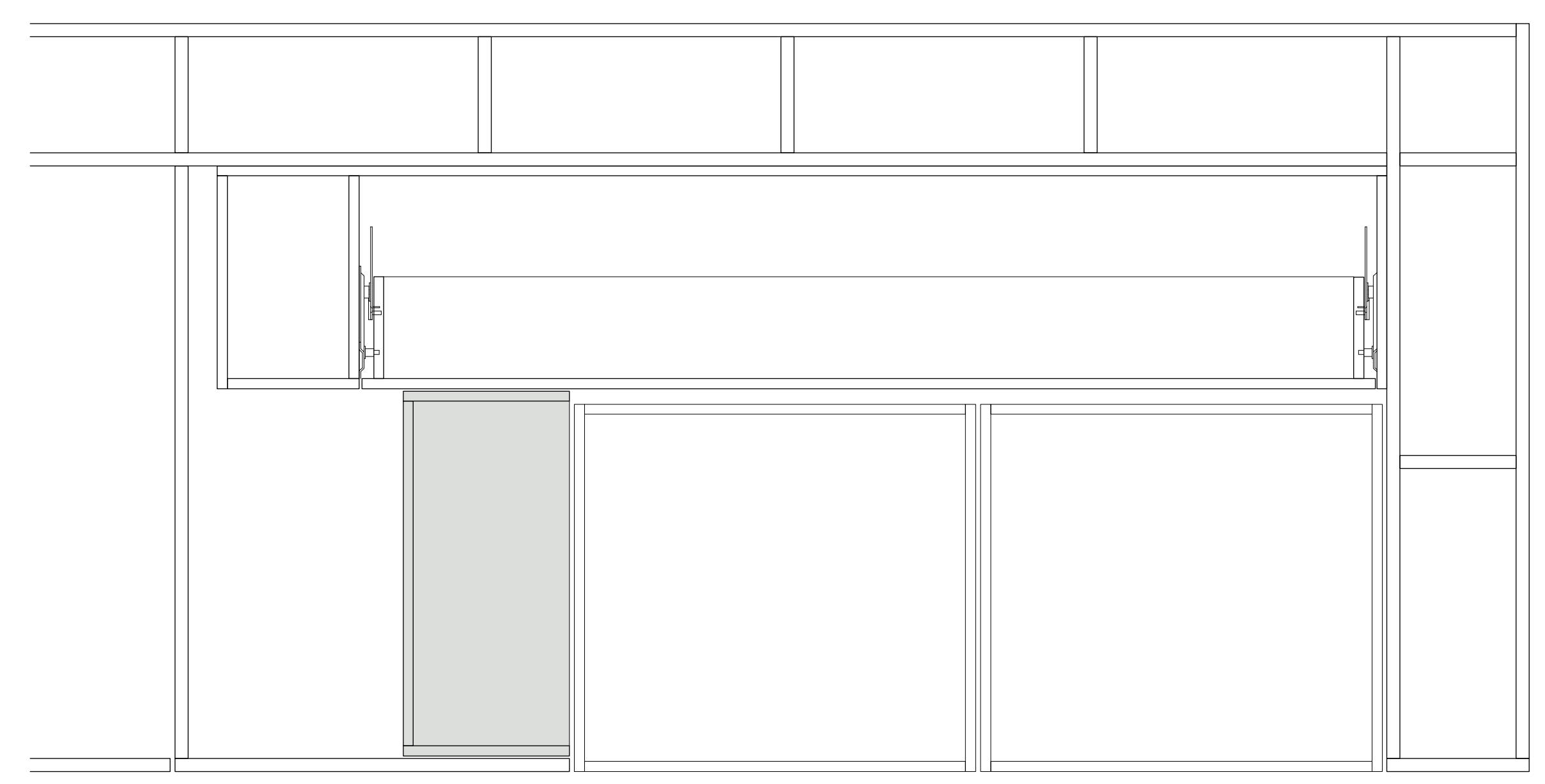
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FURNITURE LAYOUT

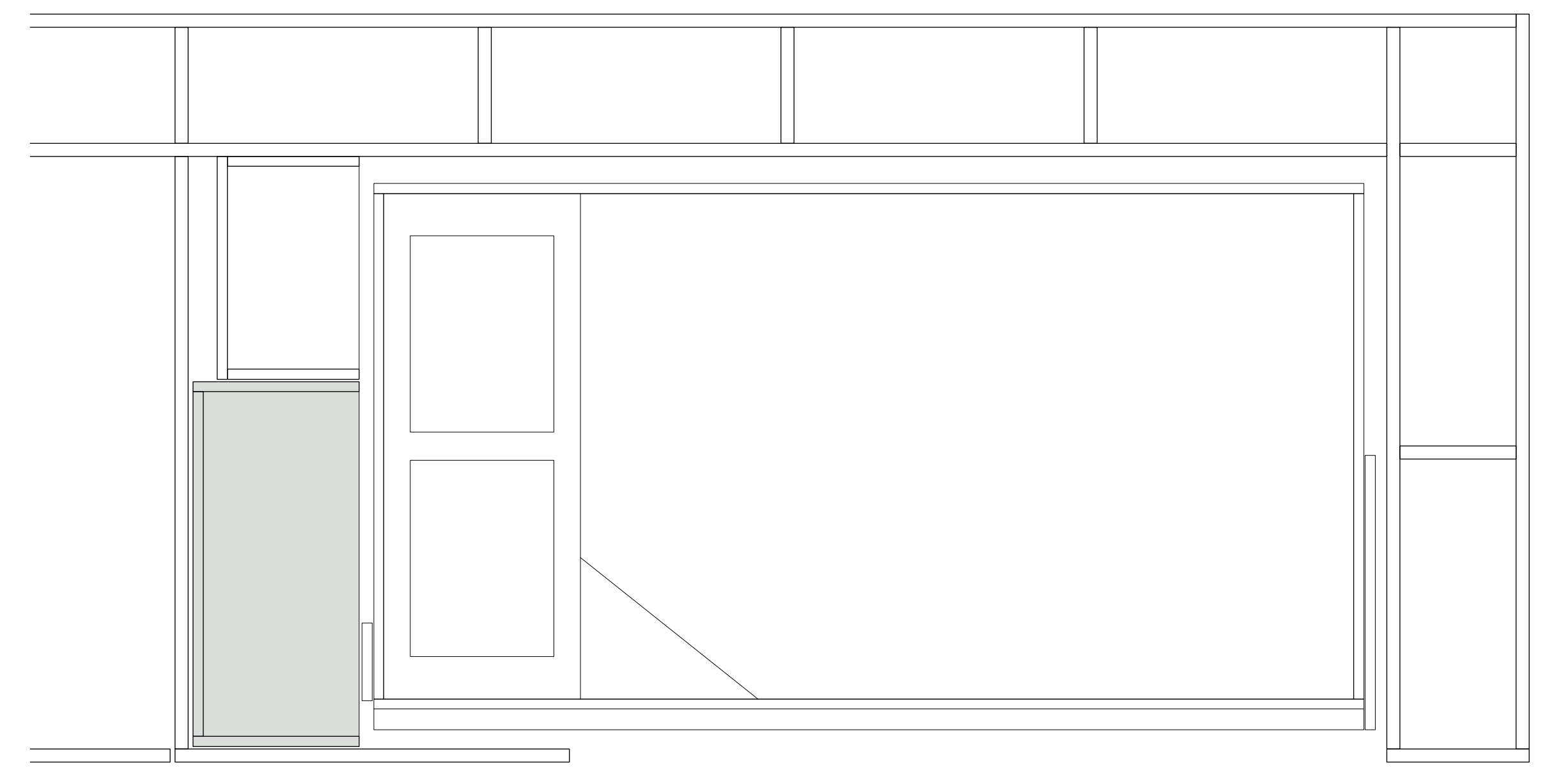
I-202



A1 BOOK CASE PLANS AND AXONOMETRY



C4 LIVING ROOM CONFIGURATION PLAN



A4 BEDROOM CONFIGURATION PLAN

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Passage du Cardinal 13B
CH-1700 Fribourg

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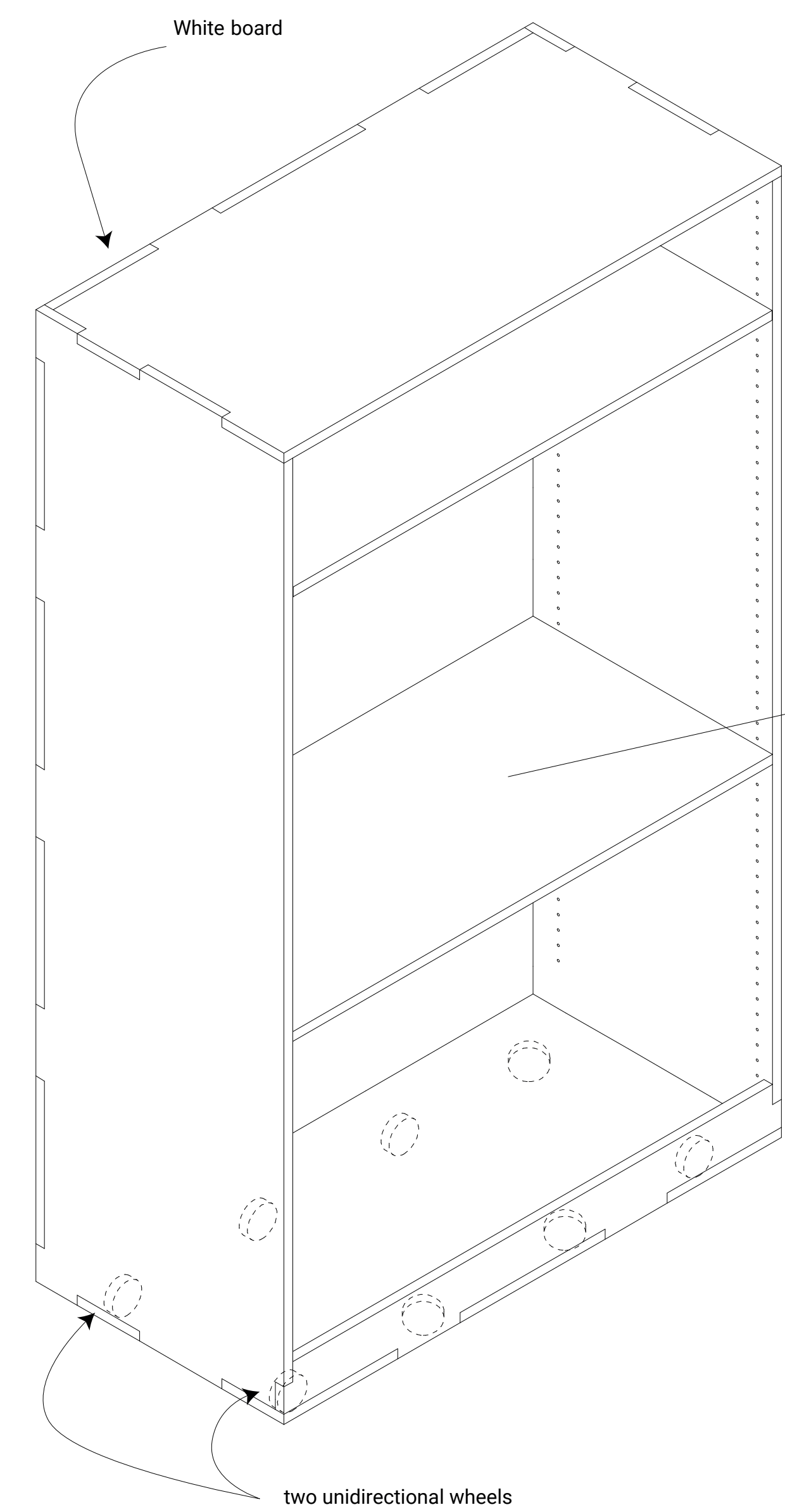
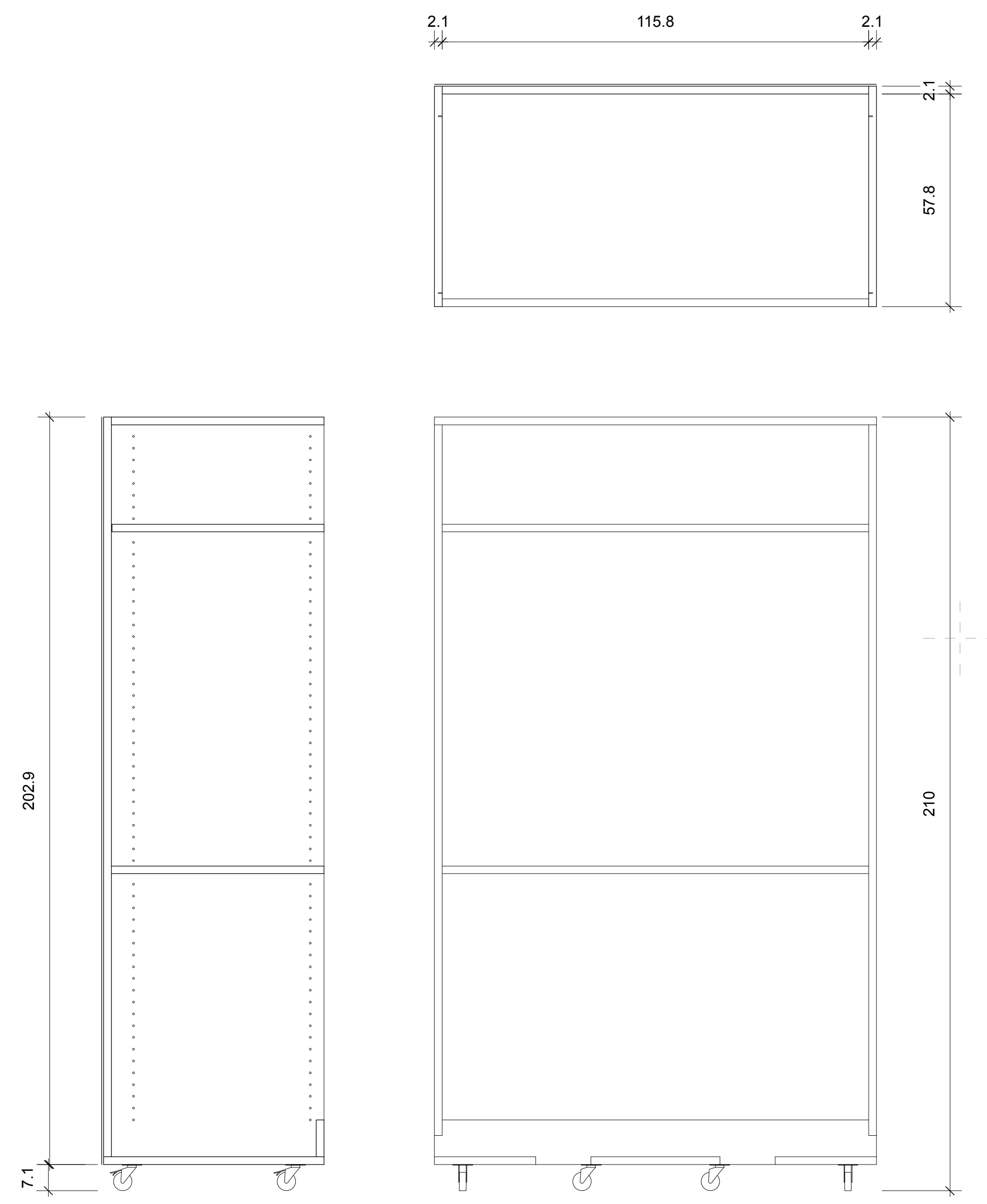
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SAUTHIER scale: NO

FURNITURE LAYOUT

I-203



Kerto-Q 2.1cm
White wood stain

(A2) CONFERENCE MODULE PLANS AND AXONOMETRY

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CH-1700 Fribourg

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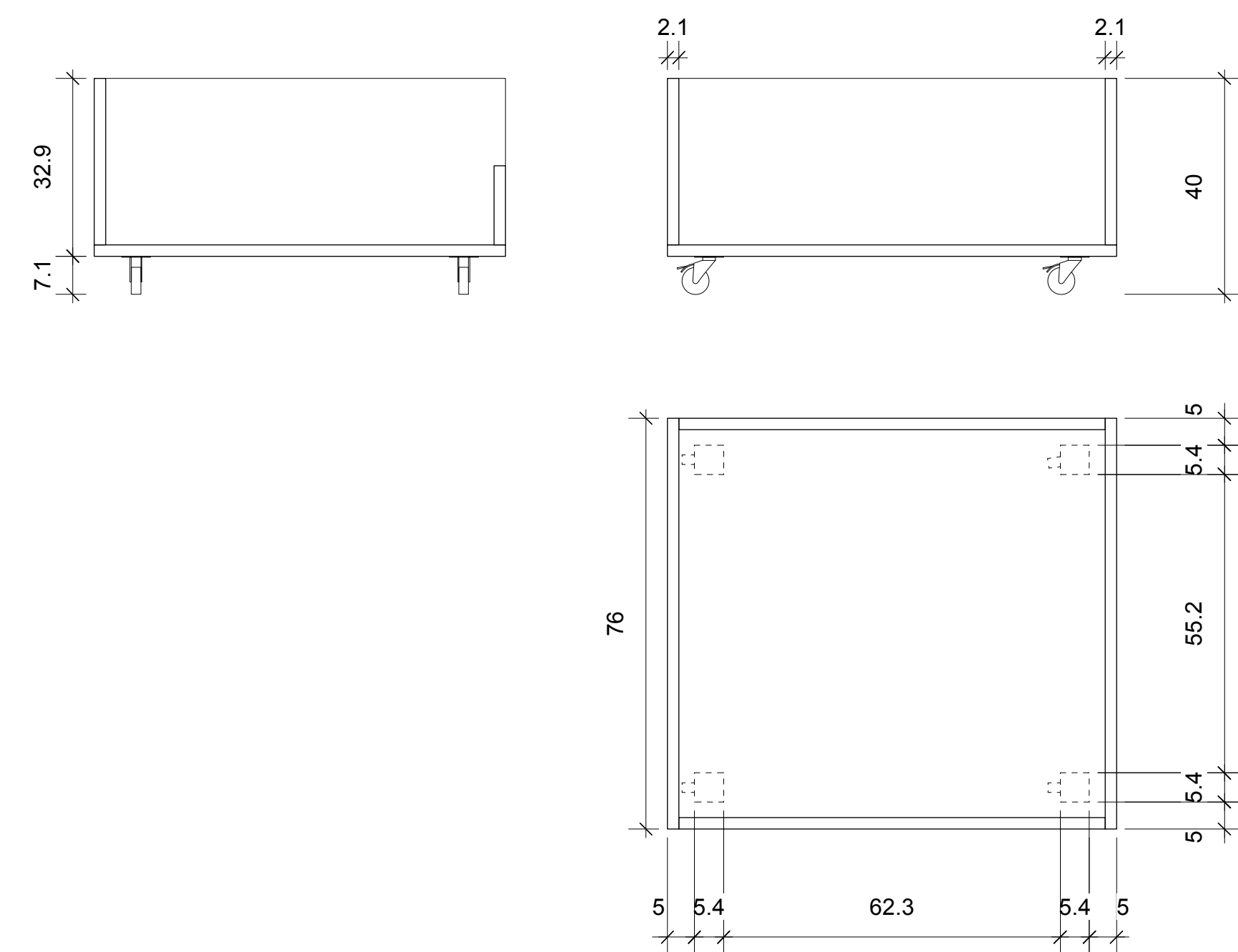
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Plans are drawn with metric system (cm)

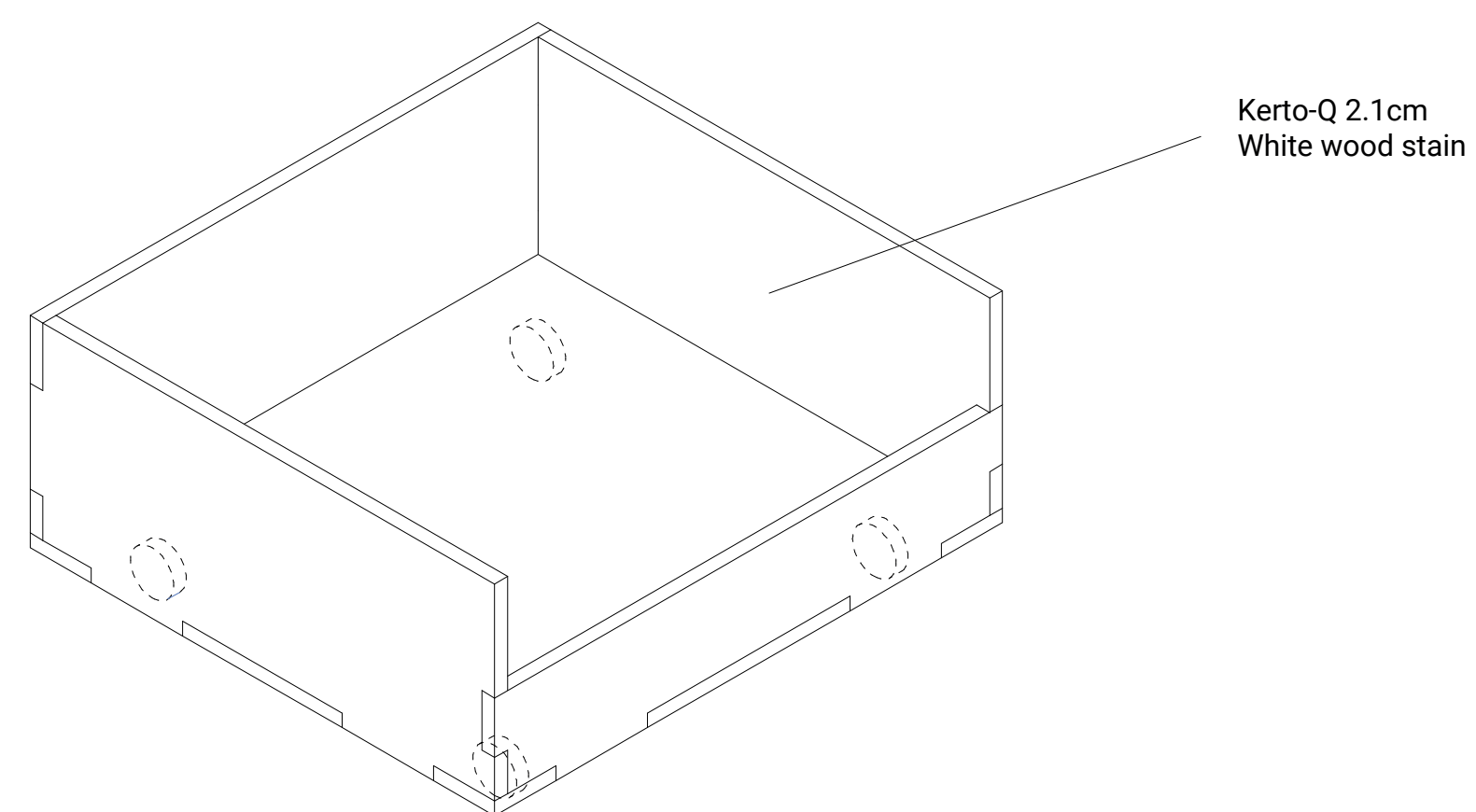
DRAWN BY: SAUTHIER scale: NO

FURNITURE LAYOUT

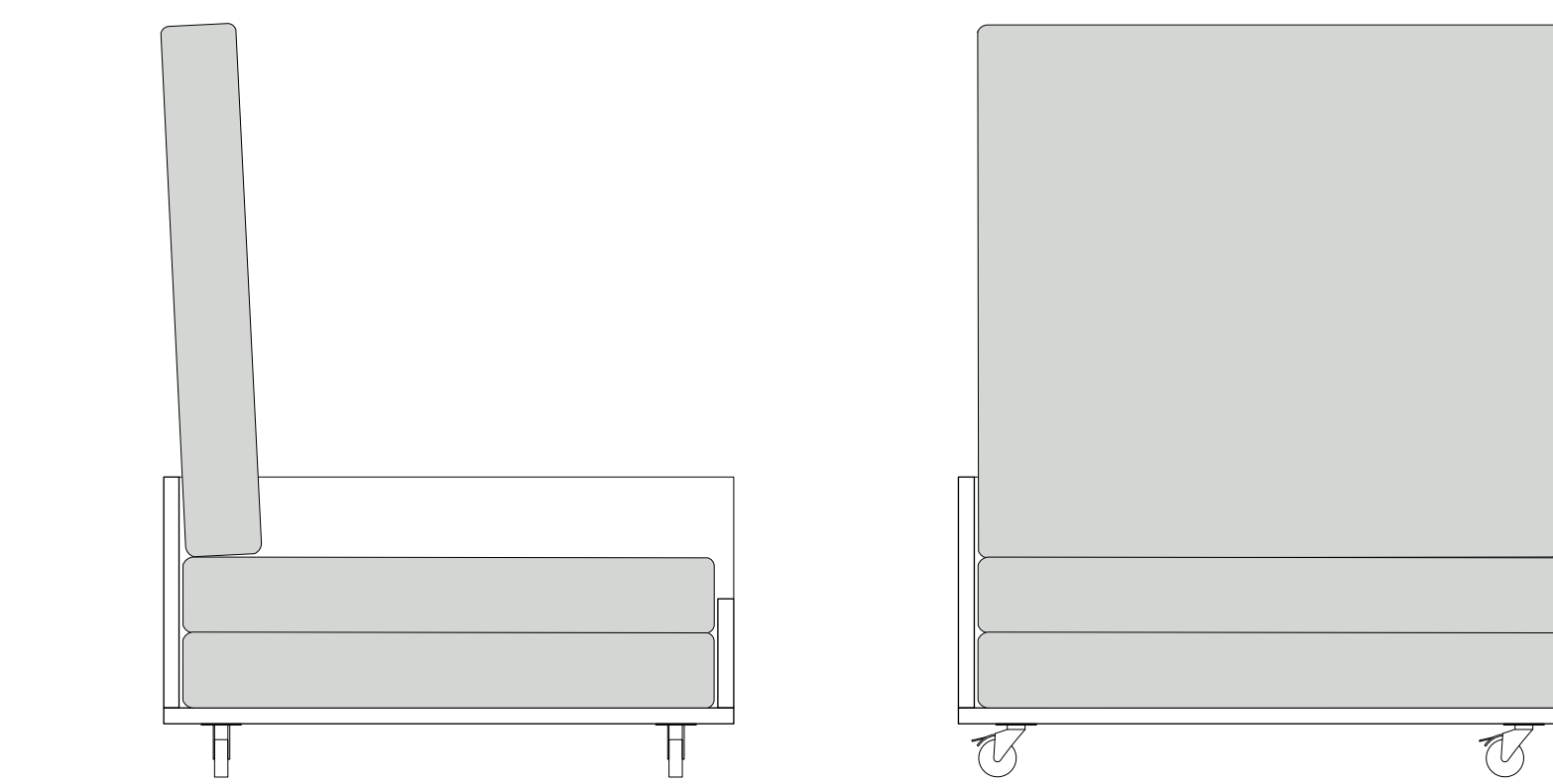
I-204



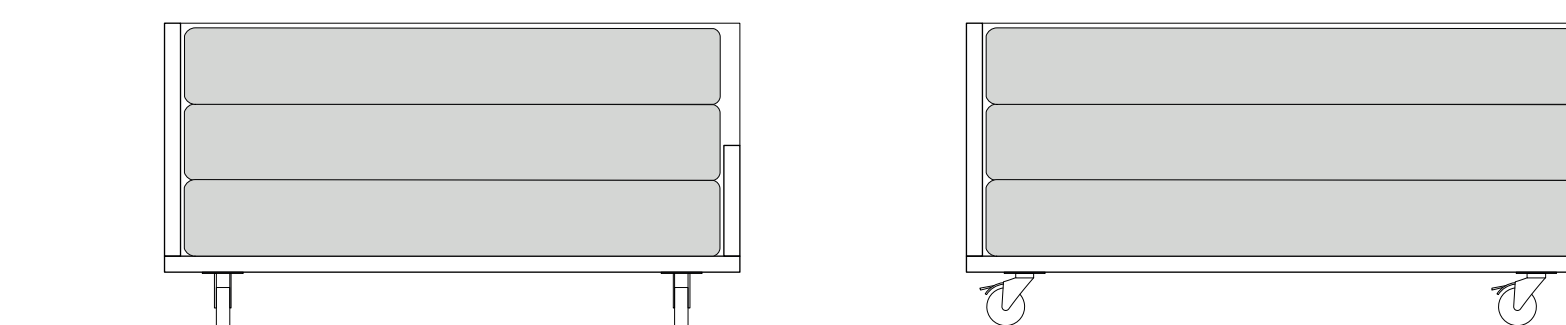
C1 COUCH MODULE PLAN AND SECTIONS



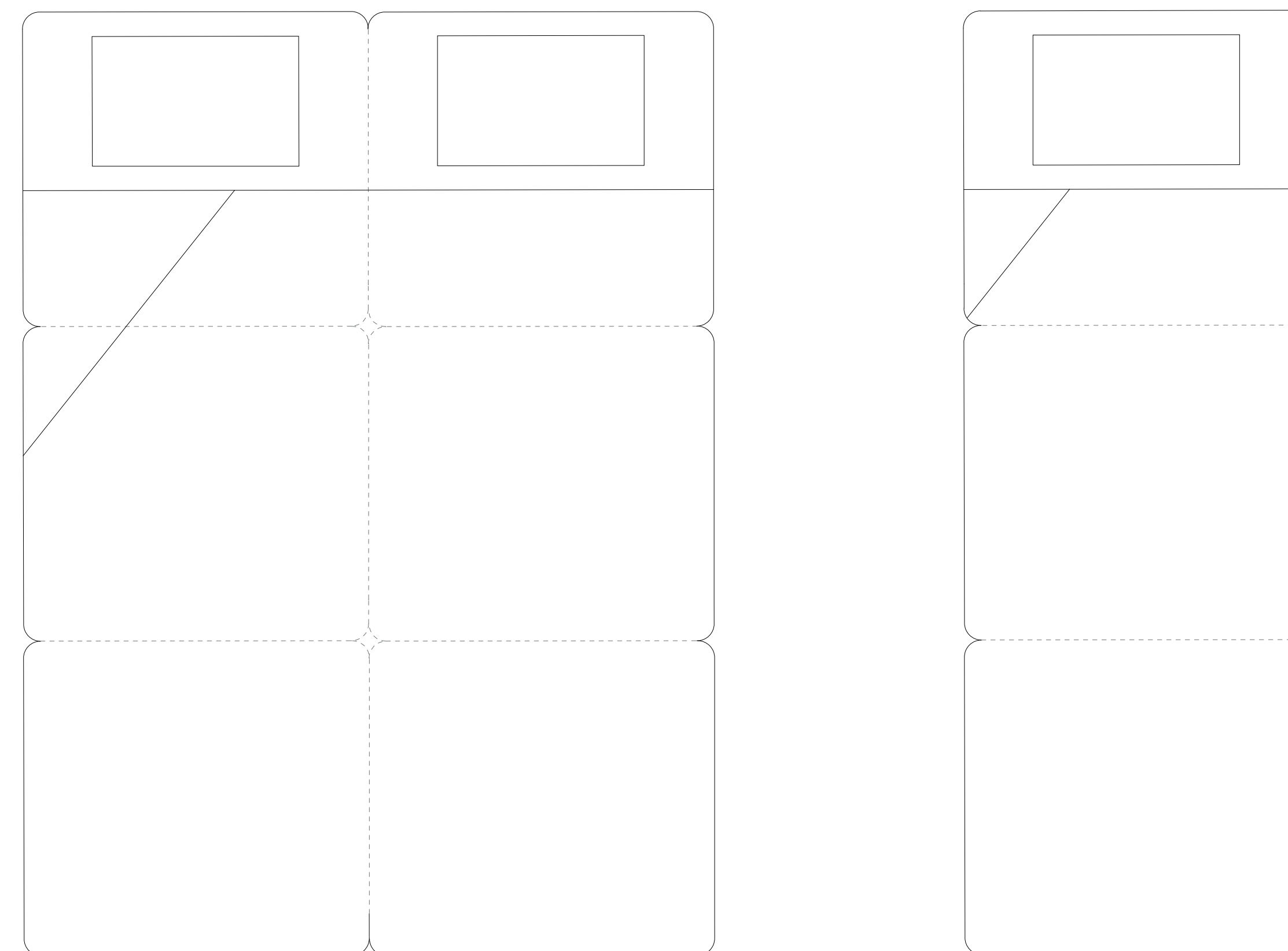
A1 COUCH MODULE AXONOMETRY



D5 LIVING ROOM CONFIGURATION



C5 STORAGE CONFIGURATION



A4 ONE EXTRA DOUBLE BED OR TWO EXTRA SIMPLE BED WITH THE CUSHIONS

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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

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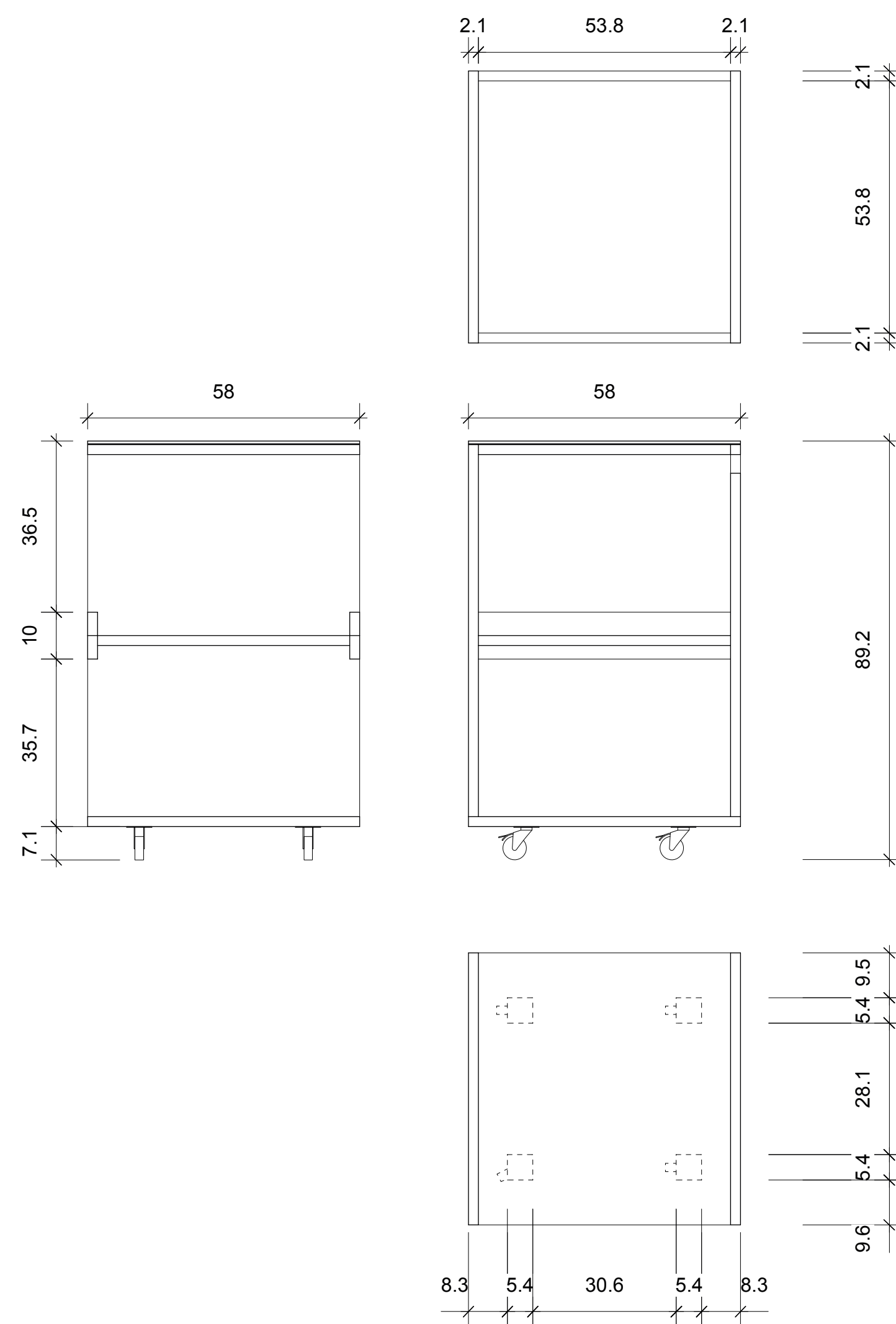
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

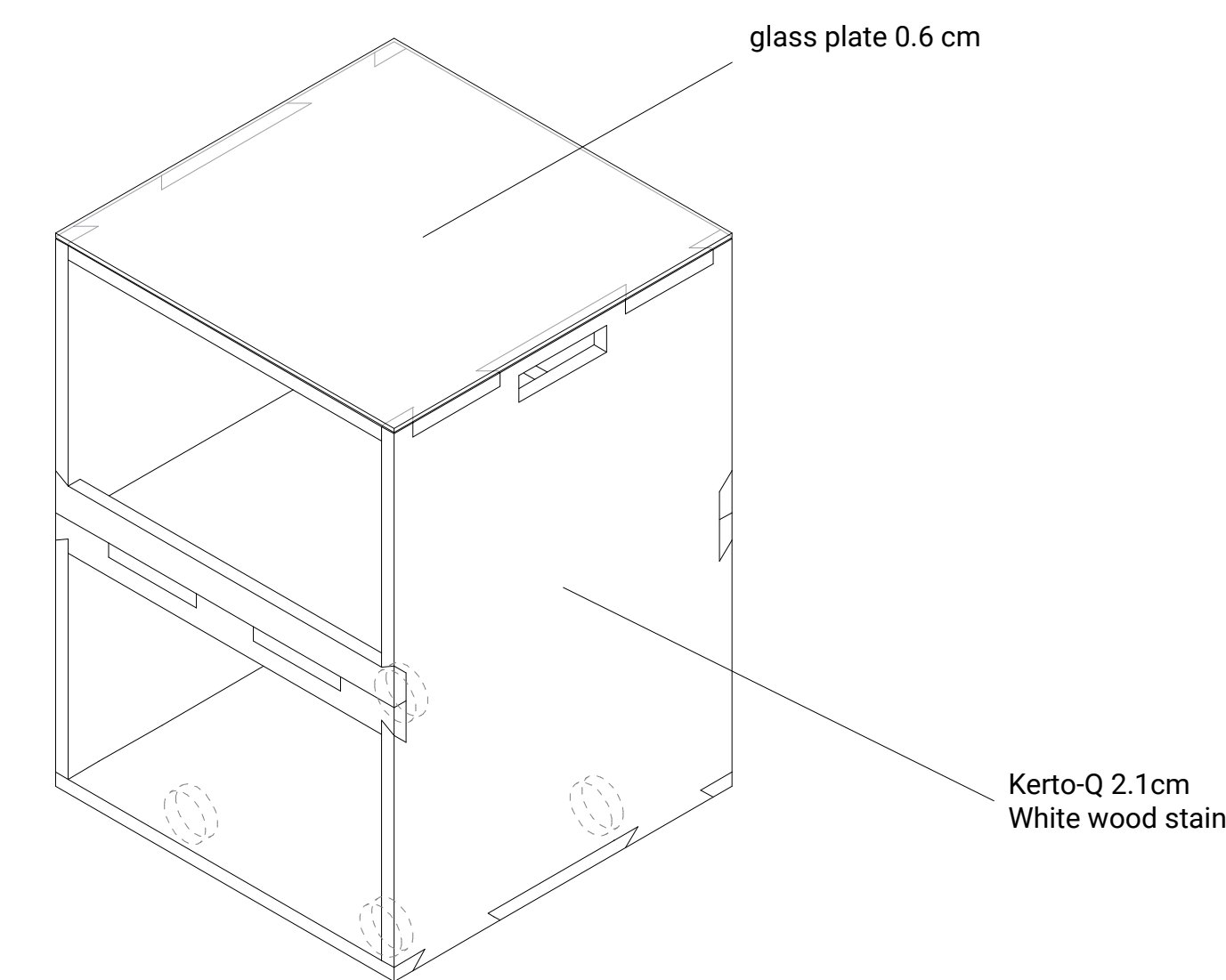
DRAWN BY: SAUTHIER scale: NO

FURNITURE LAYOUT

I-205



A2 MOBILE SIDEBOARD PLAN AND SECTIONS



B5 MOBILE SIDEBOARD AXONOMETRY

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CH-1700 Fribourg

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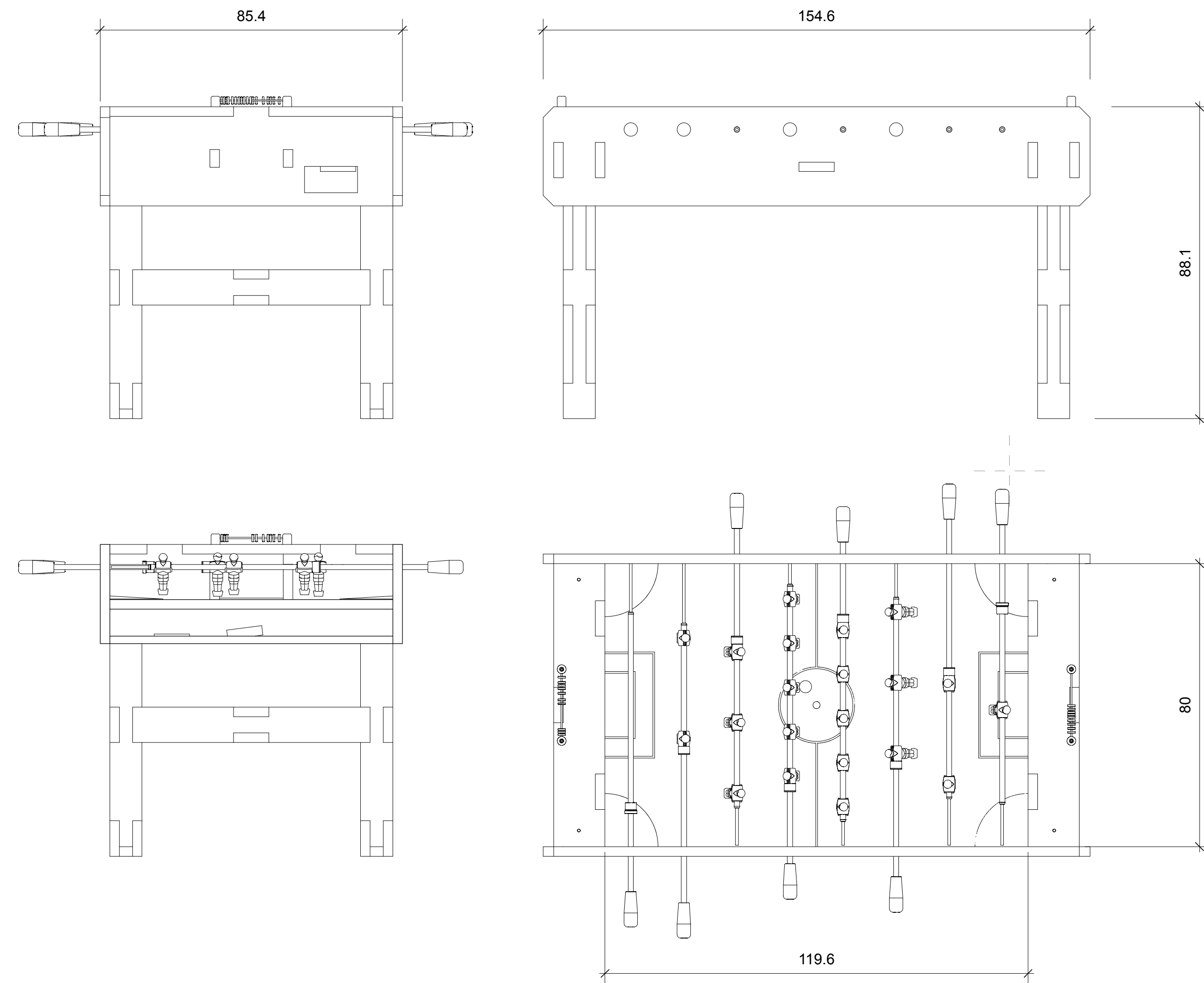
N°	DATE	DESCRIPTION
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

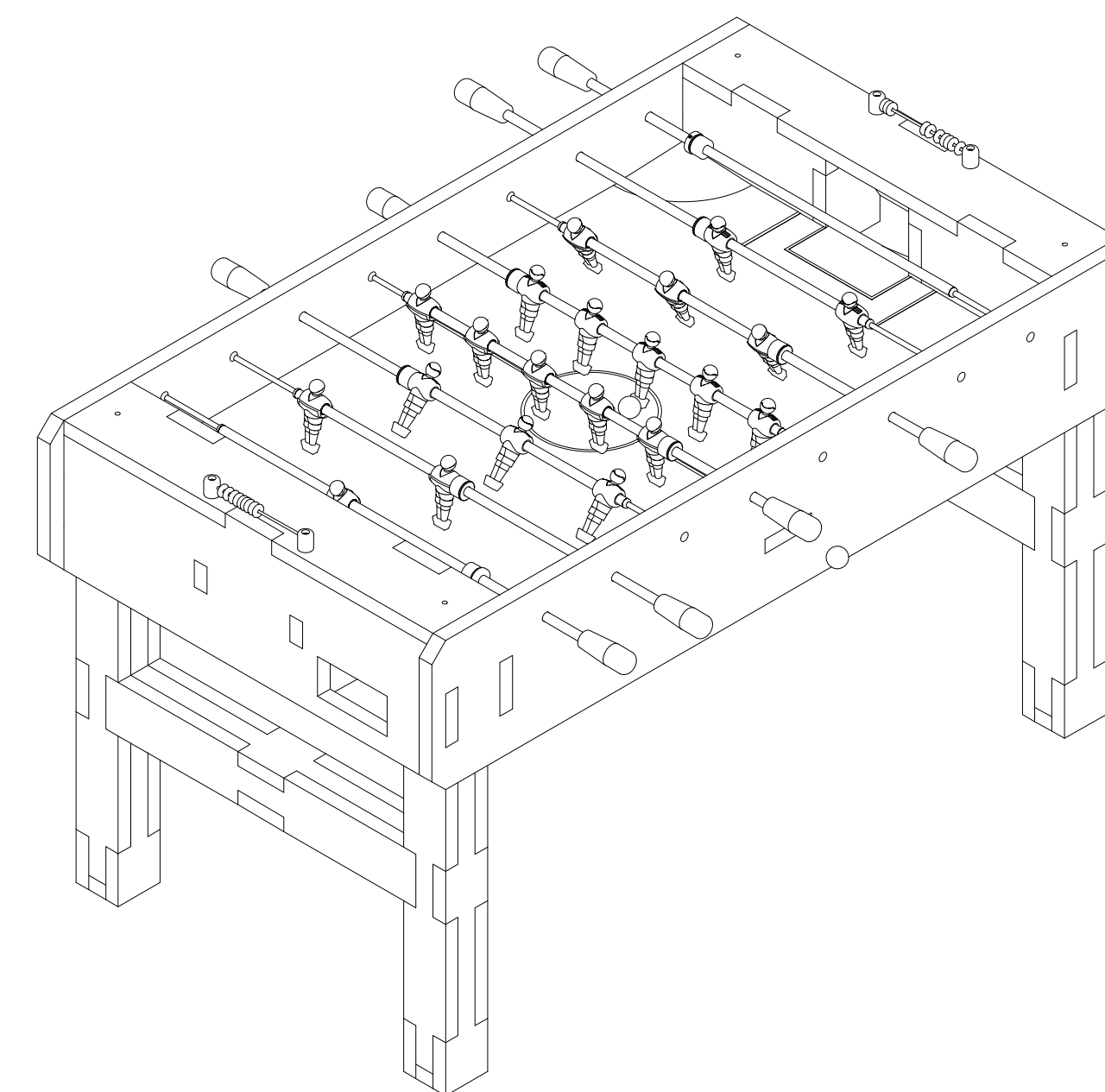
DRAWN BY: SAUTHIER scale: NO

FURNITURE LAYOUT

I-206



(A1) TABLE SOCCER PLAN AND SECTIONS



(A5) TABLE SOCCER AXONOMETRY

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CH-1700 Fribourg

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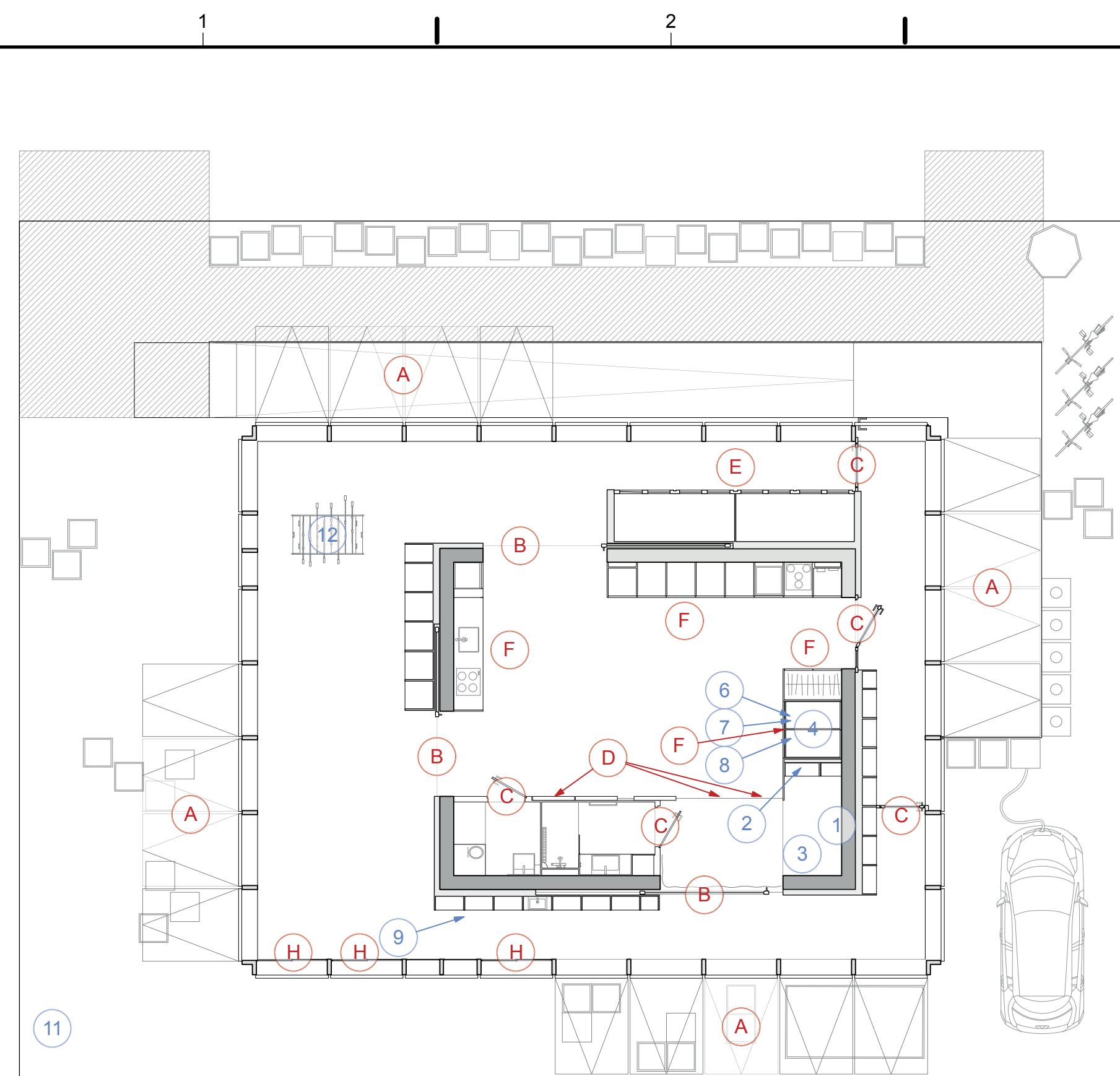
N°	DATE	DESCRIPTION
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Plans are drawn with metric system (cm)

DRAWN BY: SAUTHIER scale: NO

INTERIOR SCHEDULE

I-801



Construction: (X)

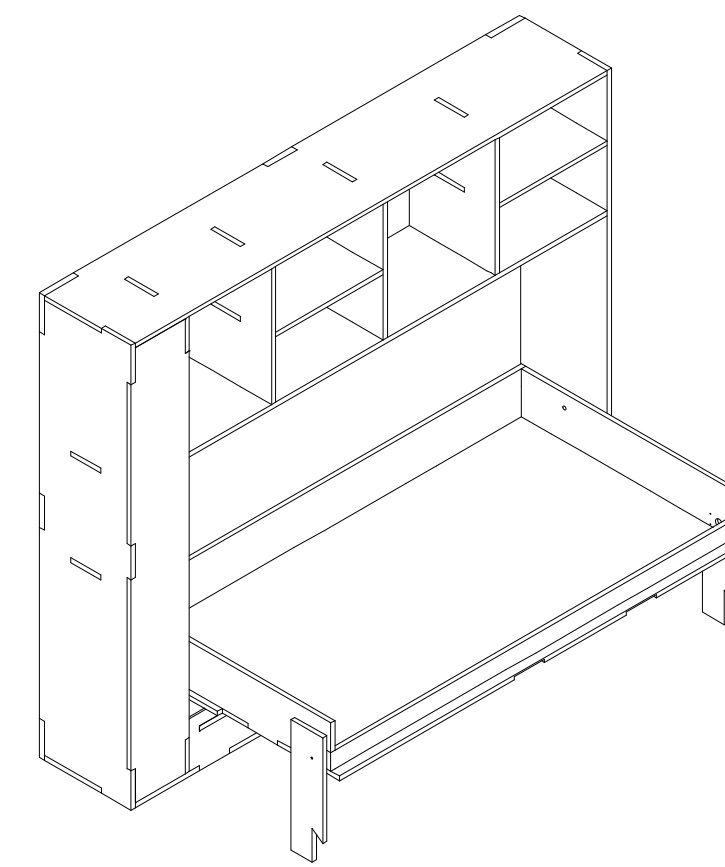
Furniture: (0)

- A- Skin's folding doors
- B- Core's glazed doors
- C- Core's door, skins' doors, bathroom's door (toilet +shower)
- D- Sliding panels (Core)
- E- Technical room's windows
- F- Closet doors
- G- Openable skylights with solar protection
- H- Solar dryer sliding doors

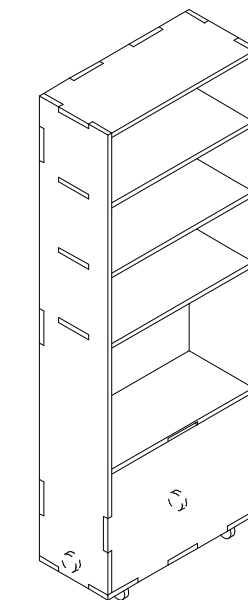
- 1- Adjustable bed (bedroom module)
- 2- Movable bookcase (bedroom module)
- 3- Couches + extra bed (couches' cushions)
- 4- Conference modules (bedroom module)
- 5- Mobile sideboard (north Core module)
- 6- Tables
- 7- benches
- 8- Stool, footstool, bench (conference module)
- 9- Cardboard boxes
- 10- Modular shelves (extended skin)
- 11- benches
- 12- NeighborFoot

(B1) LOCATION OF MOVING PARTS

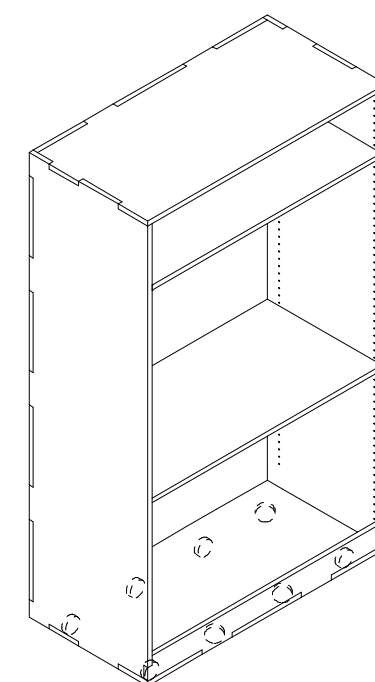
(A1) INTERIOR SCHEDULE



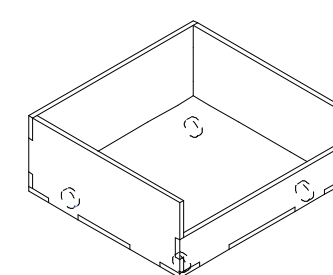
name: Adjustable bed
location: 1- bedroom module
quantity: 1x
made by: SLC
description: The bed can be opened and closed in order to have a bedroom or a living room.
material: kerto-Q 2.1 cm, White wood stain
see drawing I-201



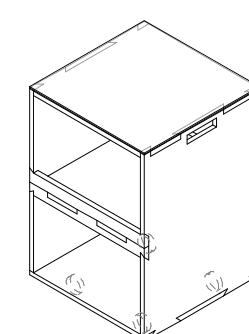
name: Movable bookcase
location: 2- bedroom module
quantity: 1x
made by: SLC
description: The bookcase can move in order to create a cozy atmosphere when the bed is closed.
material: kerto-Q 2.1 cm, White wood stain
see drawing I-202



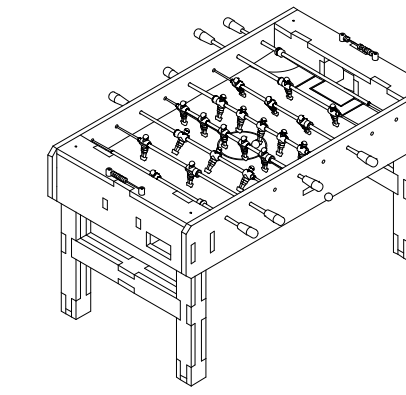
name: Conference module
location: 4- bedroom module
quantity: 2x
made by: SLC
description: You can store them in the bedroom module or take it in the Core. The back of it is a white board to write on.
material: kerto-Q 2.1 cm, White wood stain
see drawing I-203



name: Couch
location: 3- bedroom module
quantity: 2x
made by: SLC
description: It make a couch when the bed is closed. It is movable in the space and can be used as a footstool. The large cushions can make two extre bed or one double bed.
material: kerto-Q 2.1 cm, White wood stain
see drawing I-204



name: Mobile sideboard
location: 5-north cupboards of the core
quantity: 5x
made by: SLC
description: It can be moved in the space and used as a worktop, transport tools or be a support for the beamer.
material: kerto-Q 2.1 cm, White wood stain
see drawing I-205



name: NeighborFoot
location: Extended Skin and/or Core
quantity: 1x
made by: SLC
description: -
material: kerto-Q 2.7 cm
see drawing I-206



name: Stool
location: 8- conference module
quantity: 12x
made by: stooly
description: cardboard stool with a round felt seat. It can be folded and stored in the conference module.
website: <http://www.stooly.fr>



name: Footstool
location: 8- conference module
quantity: 3x
made by: stooly
description: cardboard footstool with a round woven mats seat. It can be folded and stored in the conference module.
website: <http://www.stooly.fr>



name: Bench
location: 8- conference module
quantity: 2x
made by: stooly
description: cardboard bench with round felt seats. It can be folded and stored in the conference module.
website: <http://www.stooly.fr>



name: Table
location: 6- conference module
quantity: 4x
made by: Système Pi par Roderick Fry - Mobilier bois et acier
description: Trestle table. Table plate made with wood structure leftovers, kerto-Q 2.7 cm, White wood stain
website: <http://www.moaroom.com/>



name: Bench
location: 7- conference module
quantity: 8x
made by: Système Pi par Roderick Fry - Mobilier bois et acier
description: Trestle table. Bench plate made with wood structure leftovers, kerto-Q 2.7 cm, White wood stain
website: <http://www.moaroom.com/>

Swiss Living Challenge



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 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
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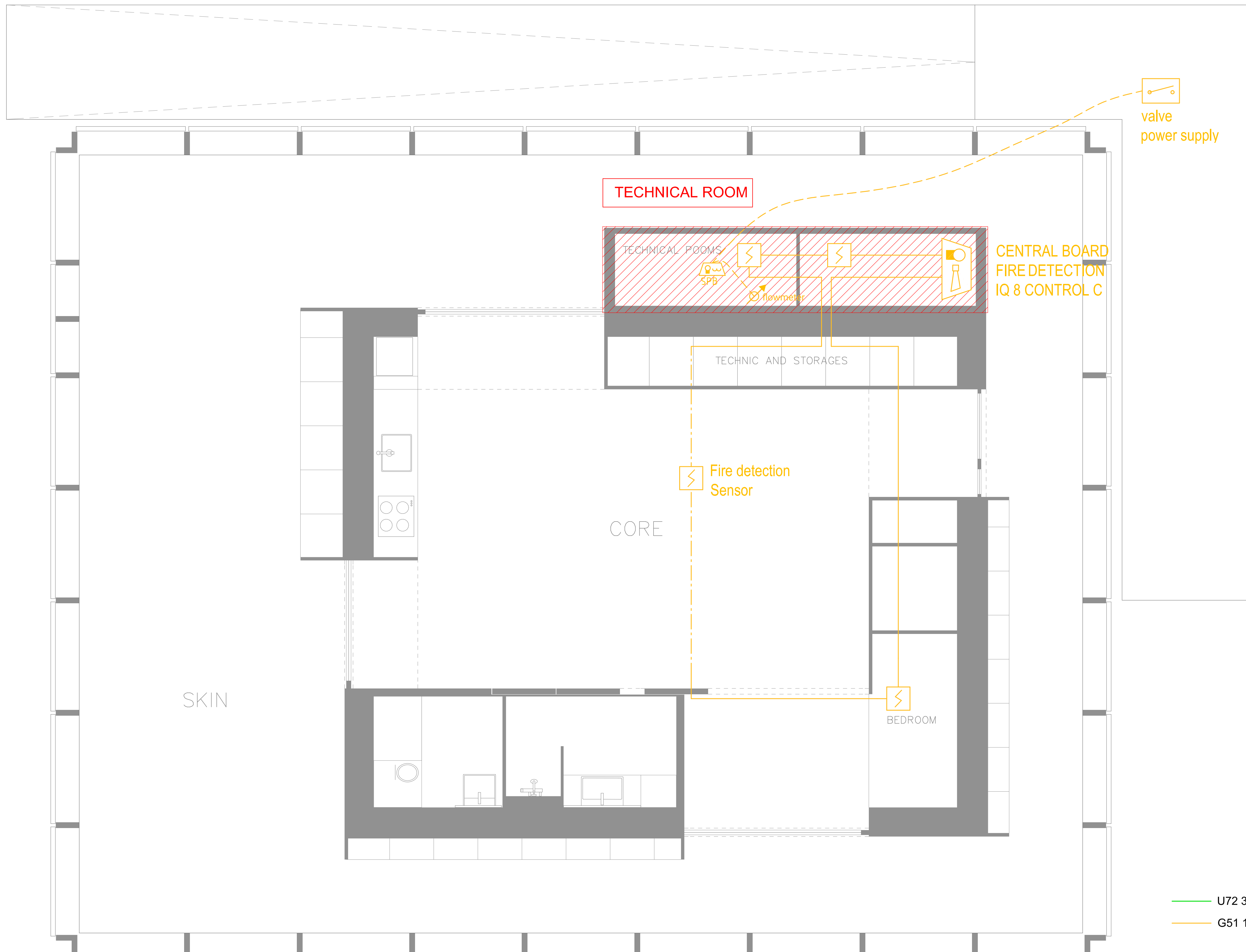
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03	2017-08-10	DELIVERABLE 08
02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: NO

FIRE DETECTION AND ALARM

F-101



U72 3x4x0.8
 G51 1x2x0.8 blinded

A1 FIRE SUPPRESSION



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CH-1700 Fribourg

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http://www.swiss-living-challenge.ch

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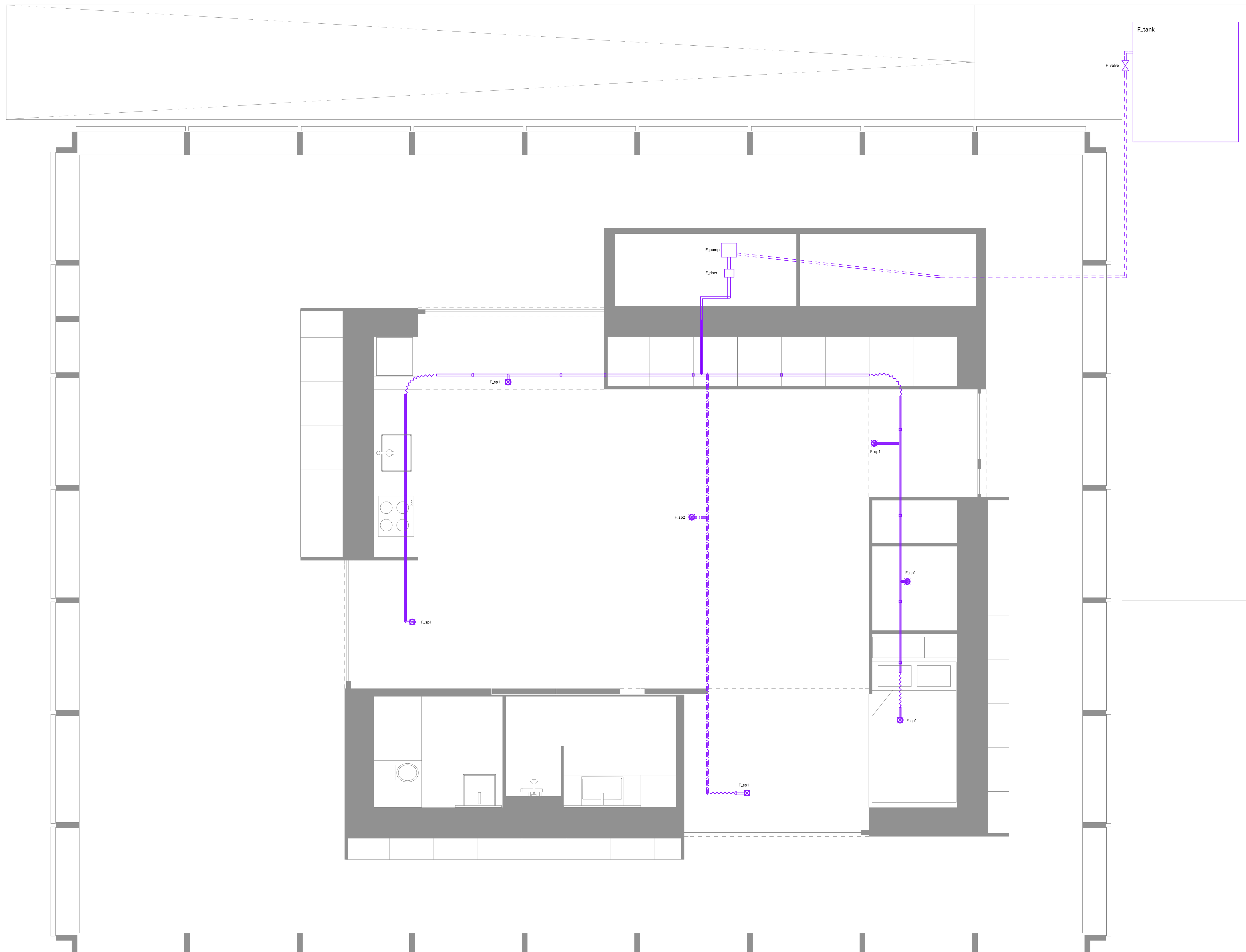
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03	2017-08-10	DELIVERABLE 08
02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: NO

FIRE SUPPRESSION

F-102



A1 FIRE SUPPRESSION



Swiss Living Challenge



TEAM NAME: SWISS TEAM
 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
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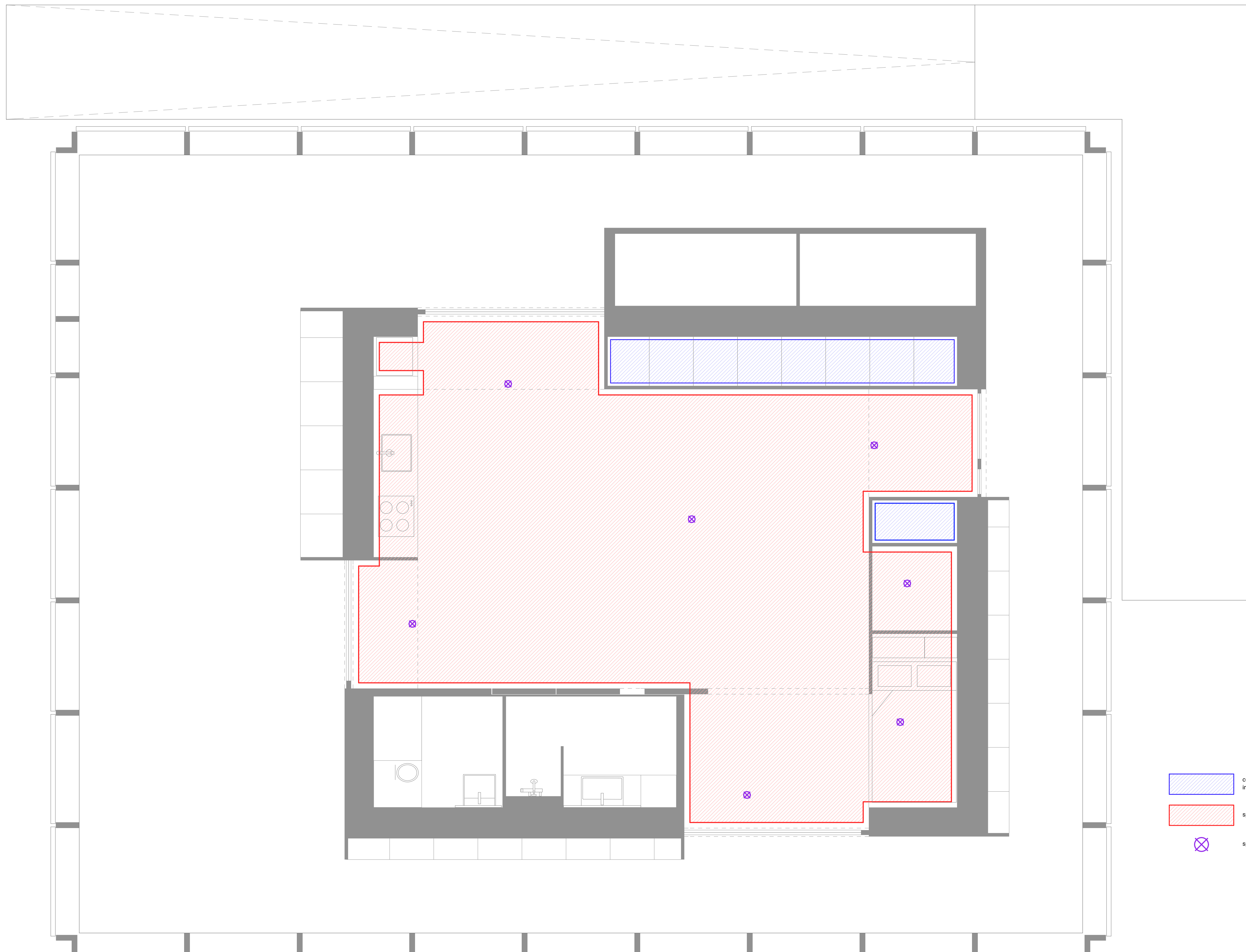
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02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04




Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: NO

FIRE SUPPRESSION COVERAGE

F-103



 covered with intumescent fireproofing
 sprinkled area
 sprinkler

(A1) FIRE SUPPRESSION COVERAGE



Swiss Living Challenge



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CH-1700 Fribourg

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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: NO

FIRE PROTECTION SCHEMATIC

F-201

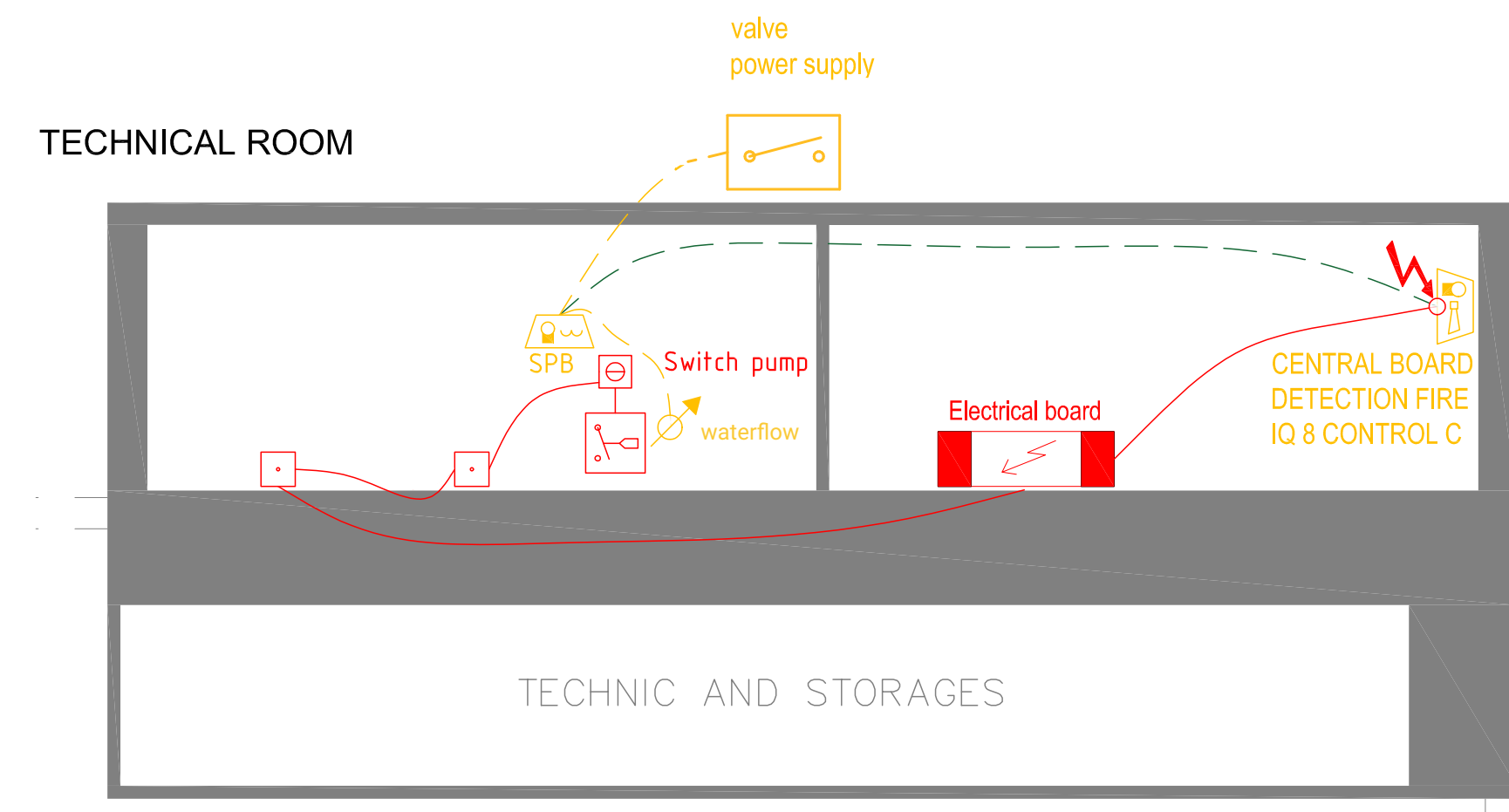
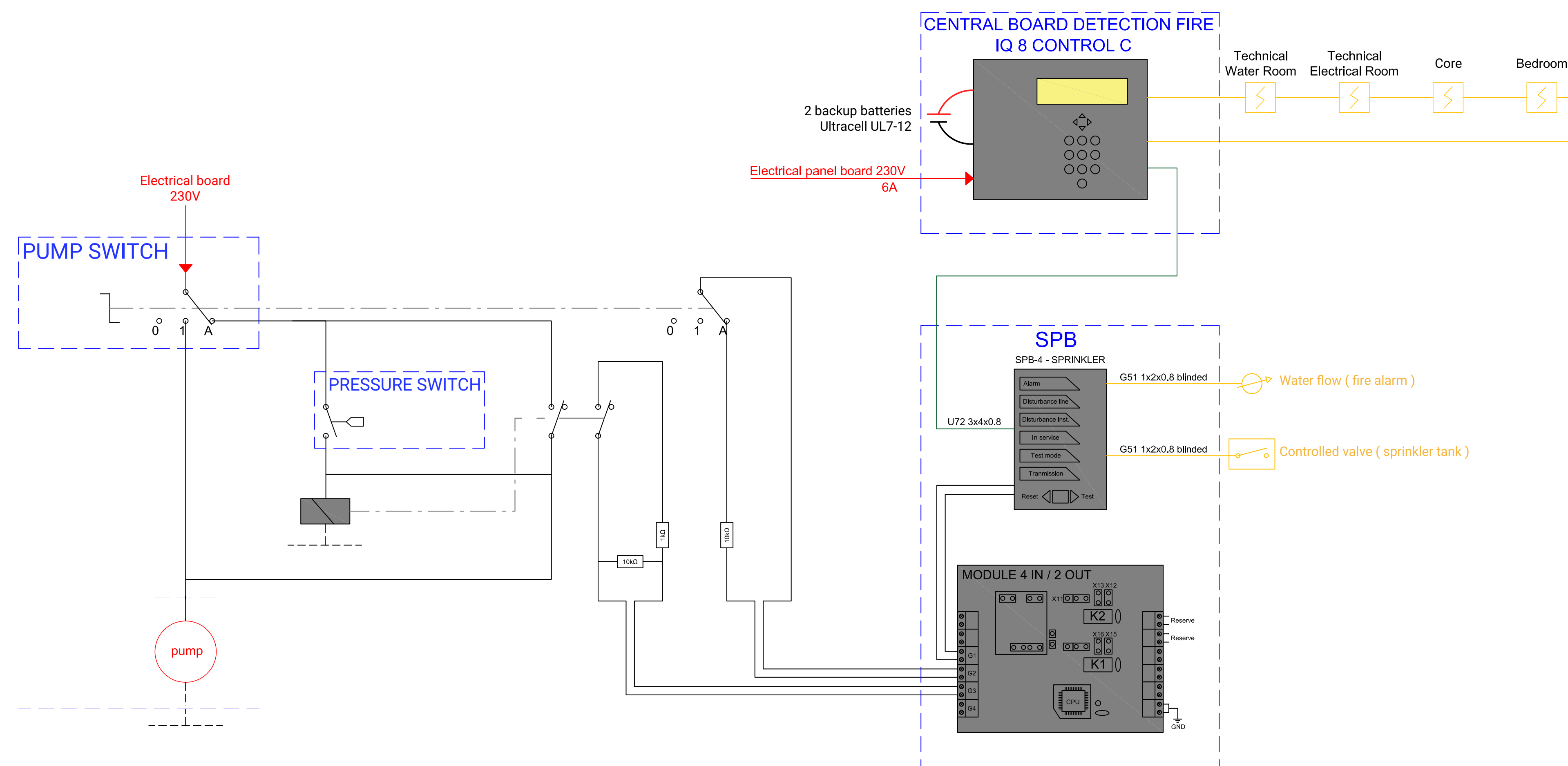


DIAGRAMME WIRING FIRE DETECTION GENERAL VIEW

— U72 3x4x0.8
— G51 1x2x0.8 blinded



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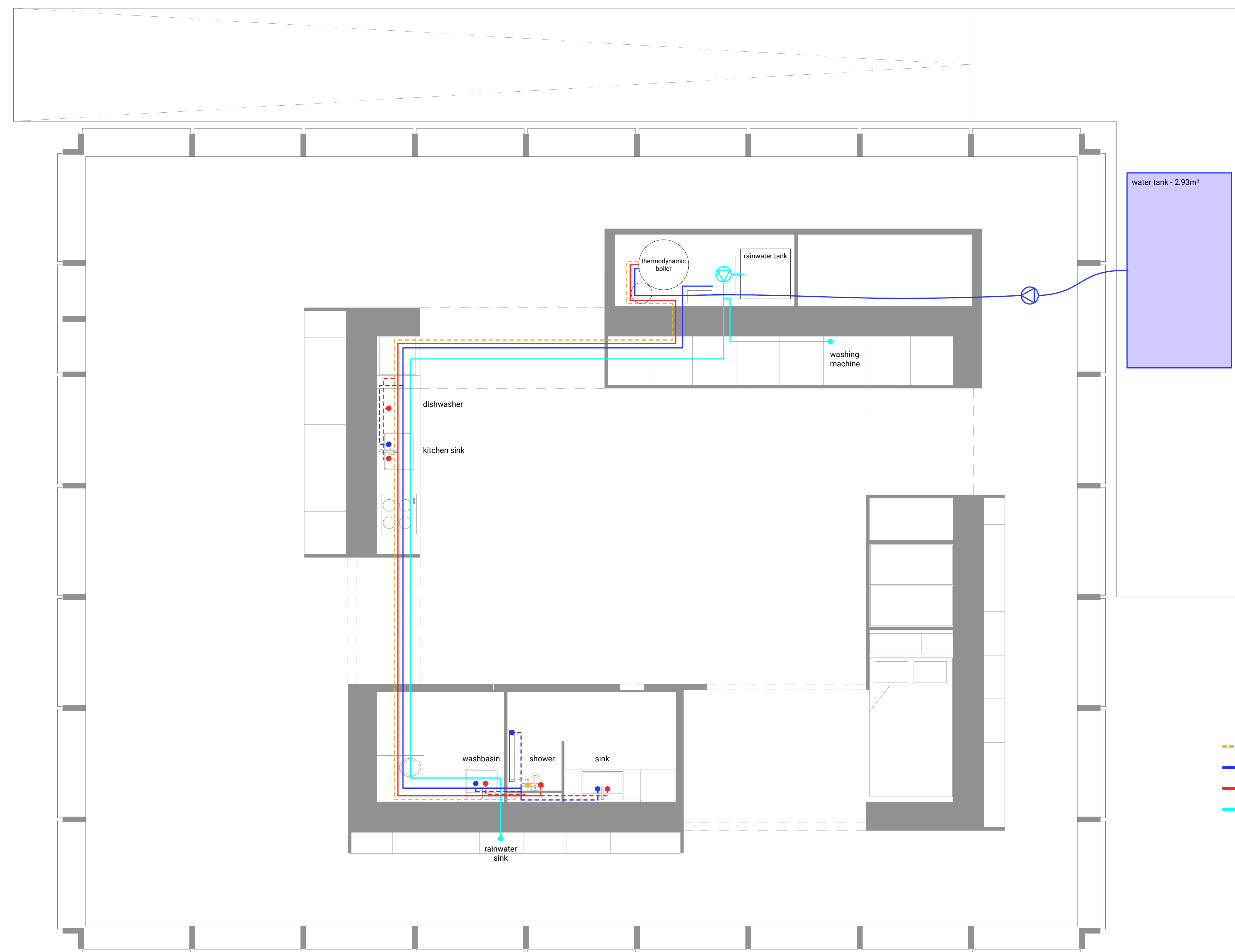
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:33

DOMESTIC WATER SUPPLY

P-101



- - - - - circulatory loop
- cold water
- hot water
- rain water

(A1) DOMESTIC WATER SUPPLY



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ADDRESS: smart living lab / SLC
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CH-1700 Fribourg

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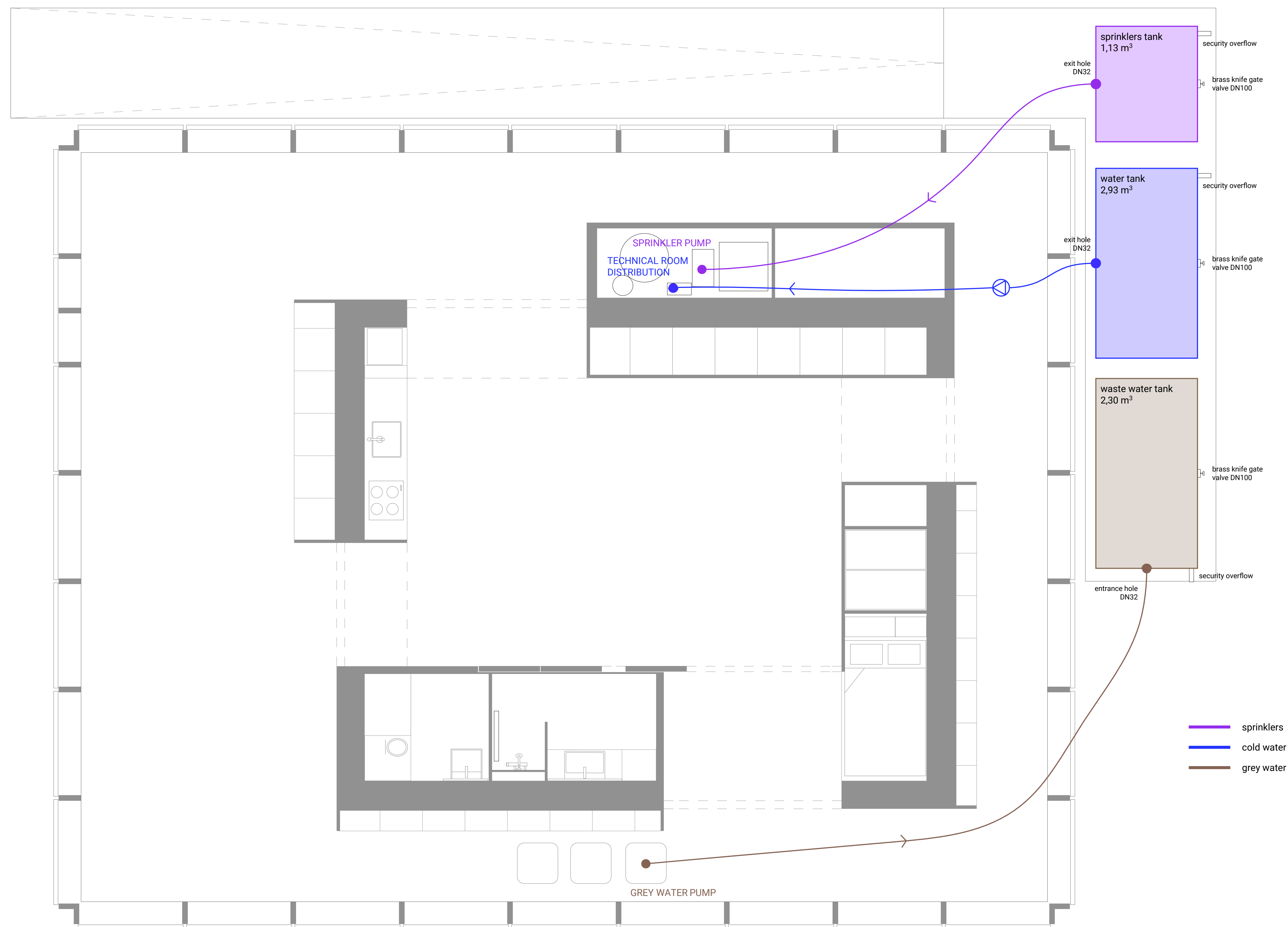
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:33

HOUSE WATER STORAGE AND CONNECTIONS

P-102



(A1) HOUSE WATER STORAGE AND CONNECTIONS



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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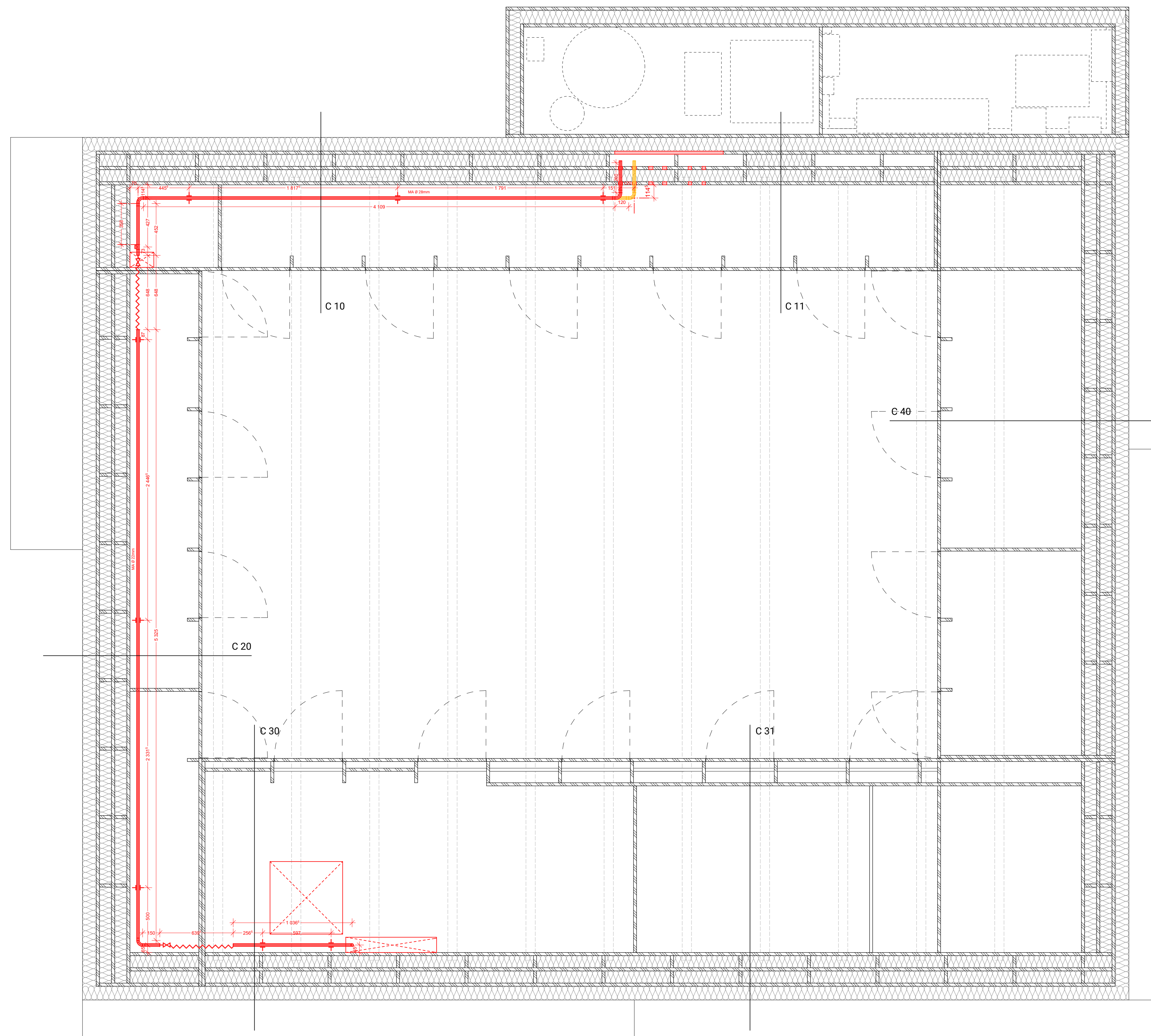
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:20

DOMESTIC SUPPLY

P-104



A2 DOMESTIC SUPPLY - hot water technical ring plan



Swiss Living Challenge



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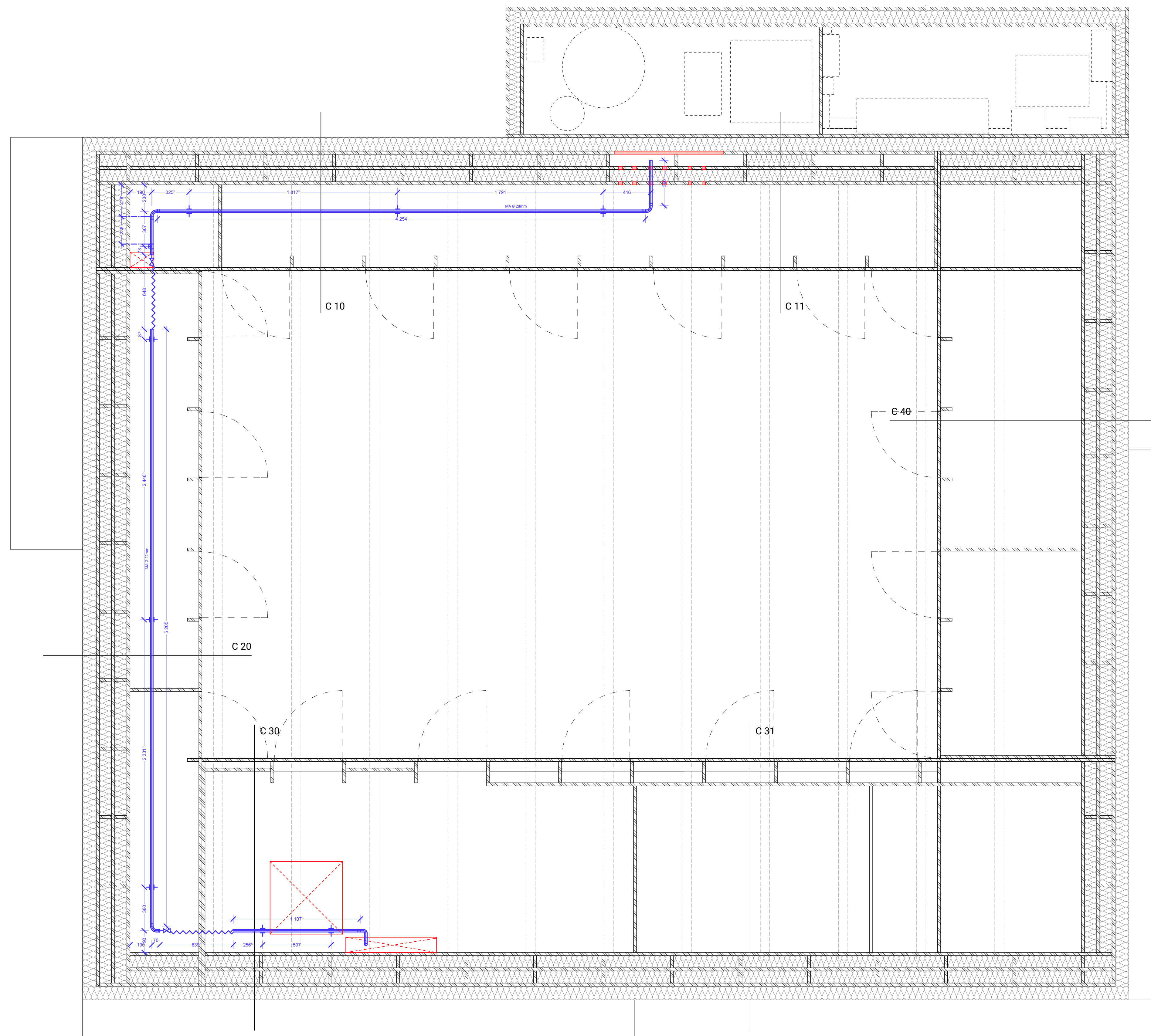
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Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:20

DOMESTIC SUPPLY

P-105



A2 DOMESTIC SUPPLY - cold water technical ring plan



Swiss Living Challenge



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CH-1700 Fribourg

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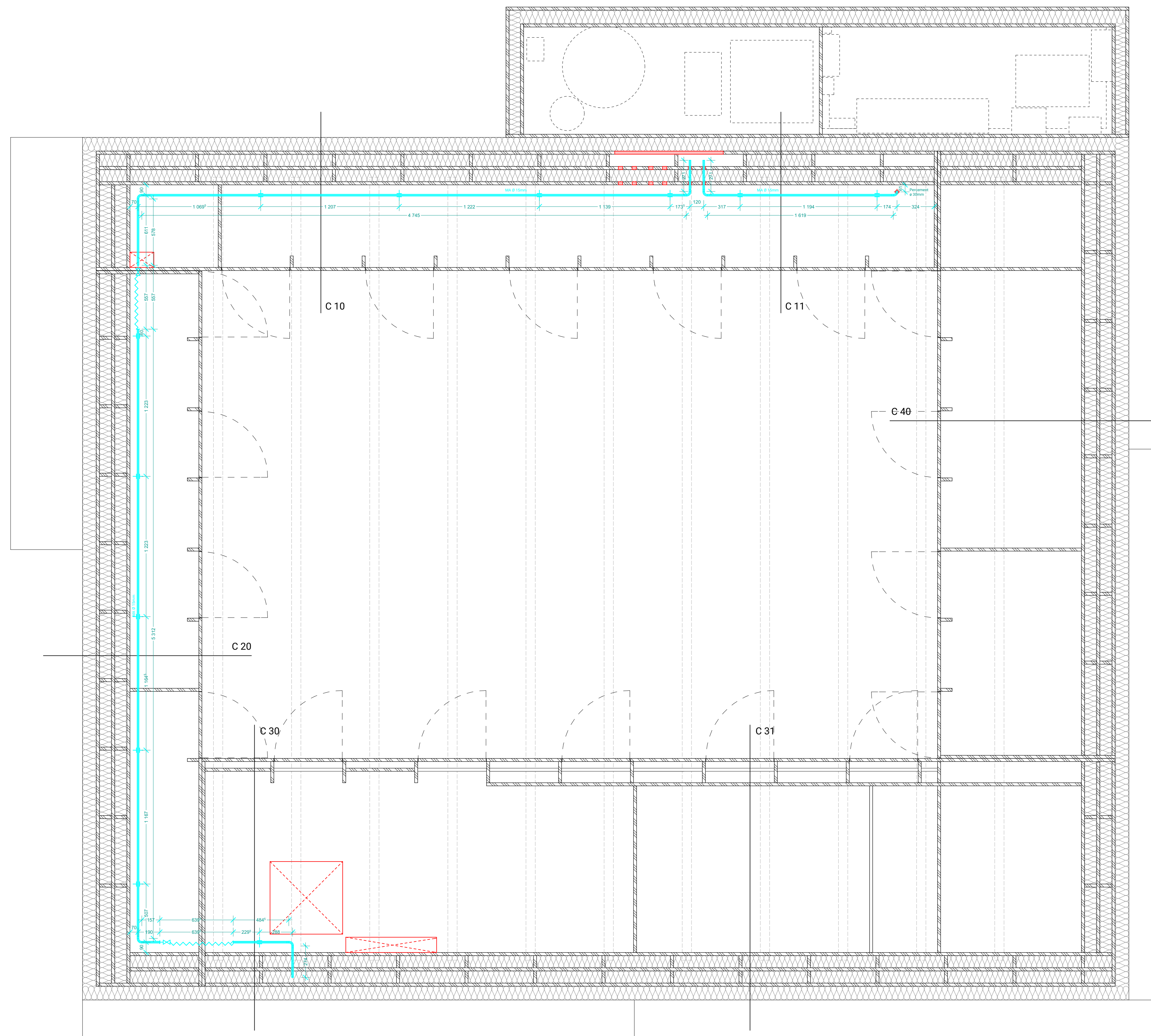
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Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:20

DOMESTIC SUPPLY

P-106



A2 DOMESTIC SUPPLY - rainwater technical ring plan



Swiss Living Challenge



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

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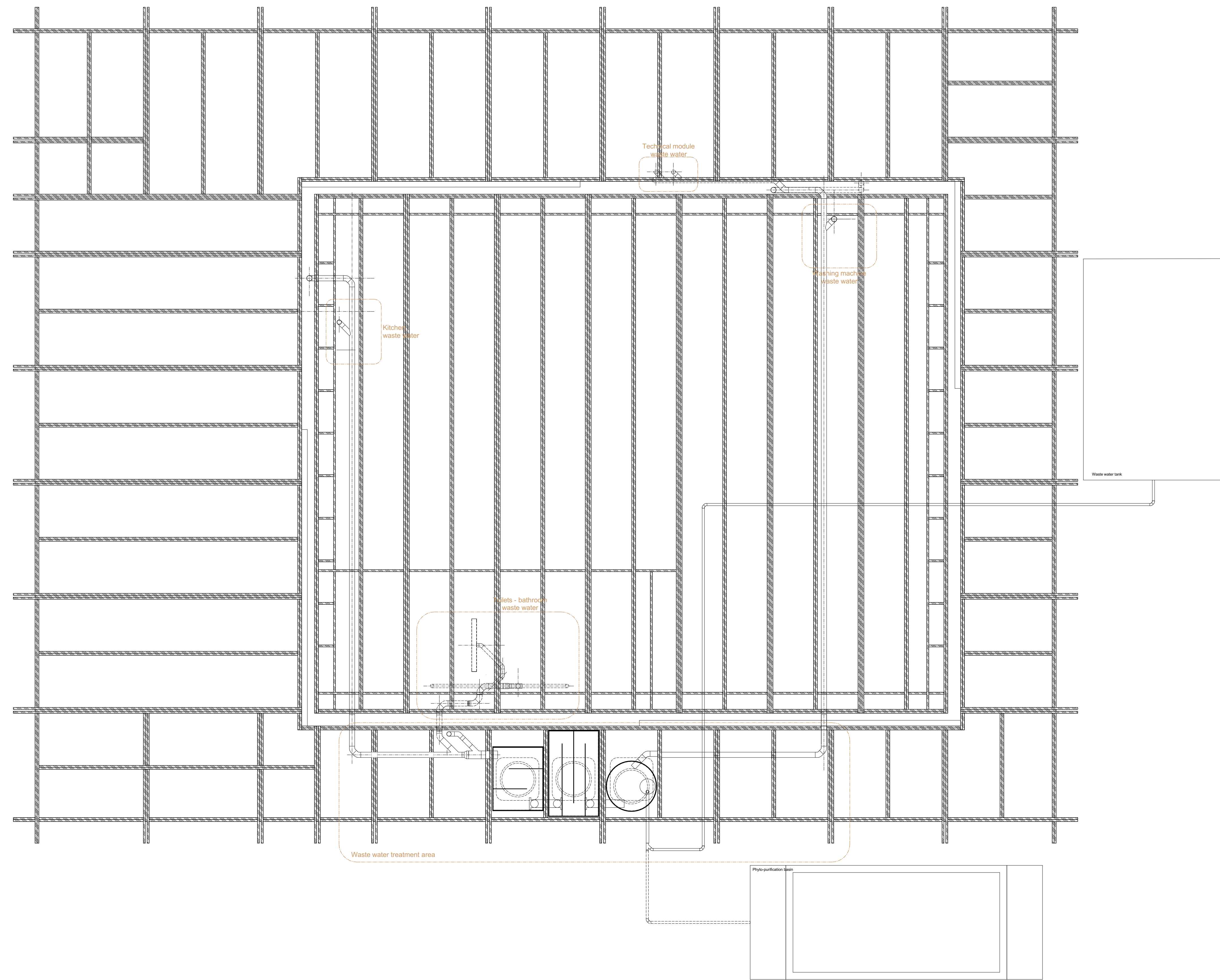
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05	2016-11-06	DELIVERABLE 04
04	2016-10-28	MODIFICATIONS SEMAINE 44
03	2016-10-24	MODIFICATIONS SEMAINE 43
02	2016-10-19	MODIFICATIONS SEMAINE 42
01	2016-10-16	SYNTHESE SEMAINE 42

Plans are drawn with metric system (cm)

DRAWN BY: JACQUET scale: 1:30

DOMESTIC WASTE WATER

P-111



(A1) DOMESTIC WASTE WATER PLAN - FLOOR STRUCTURE LEVEL



Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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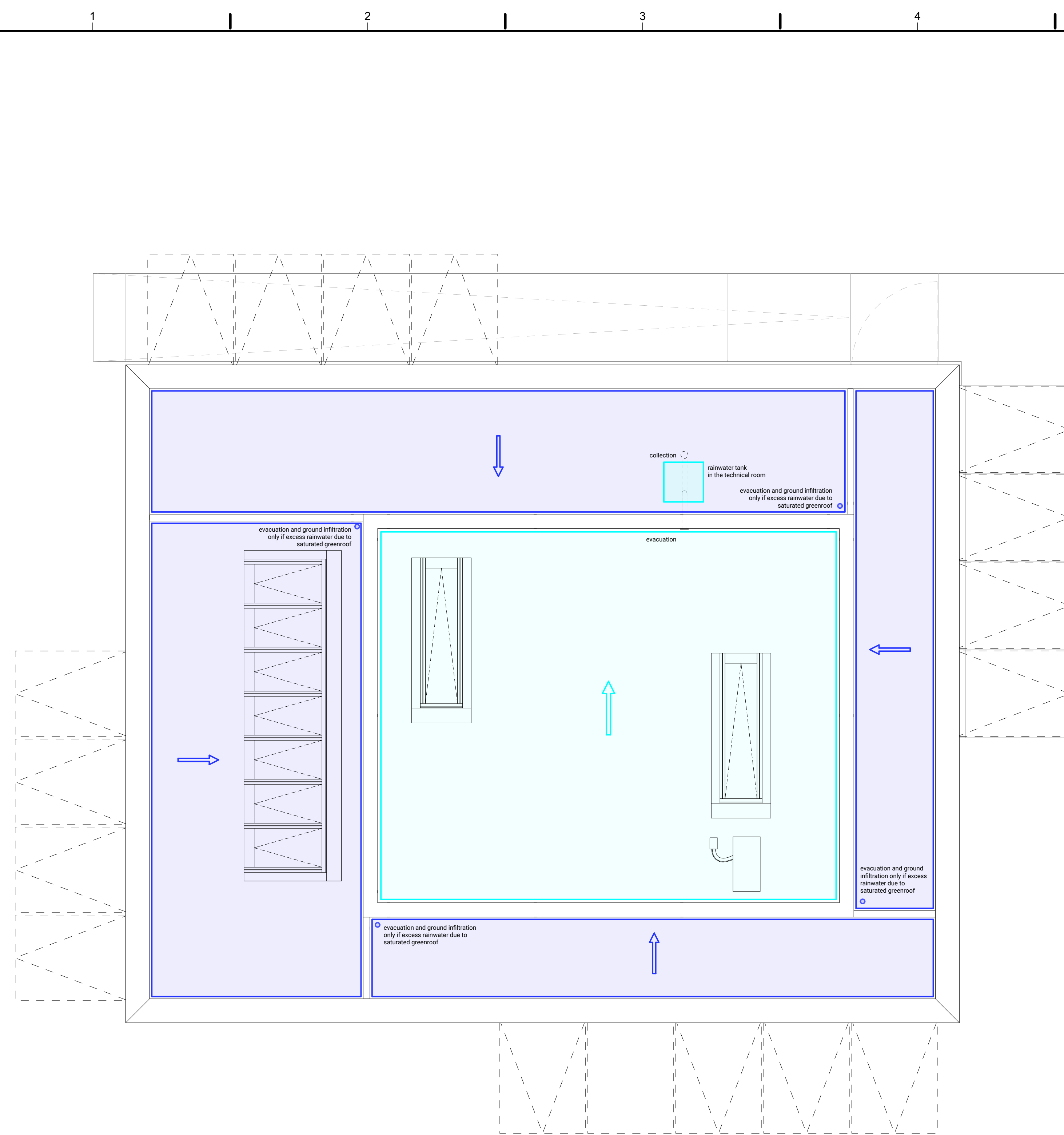
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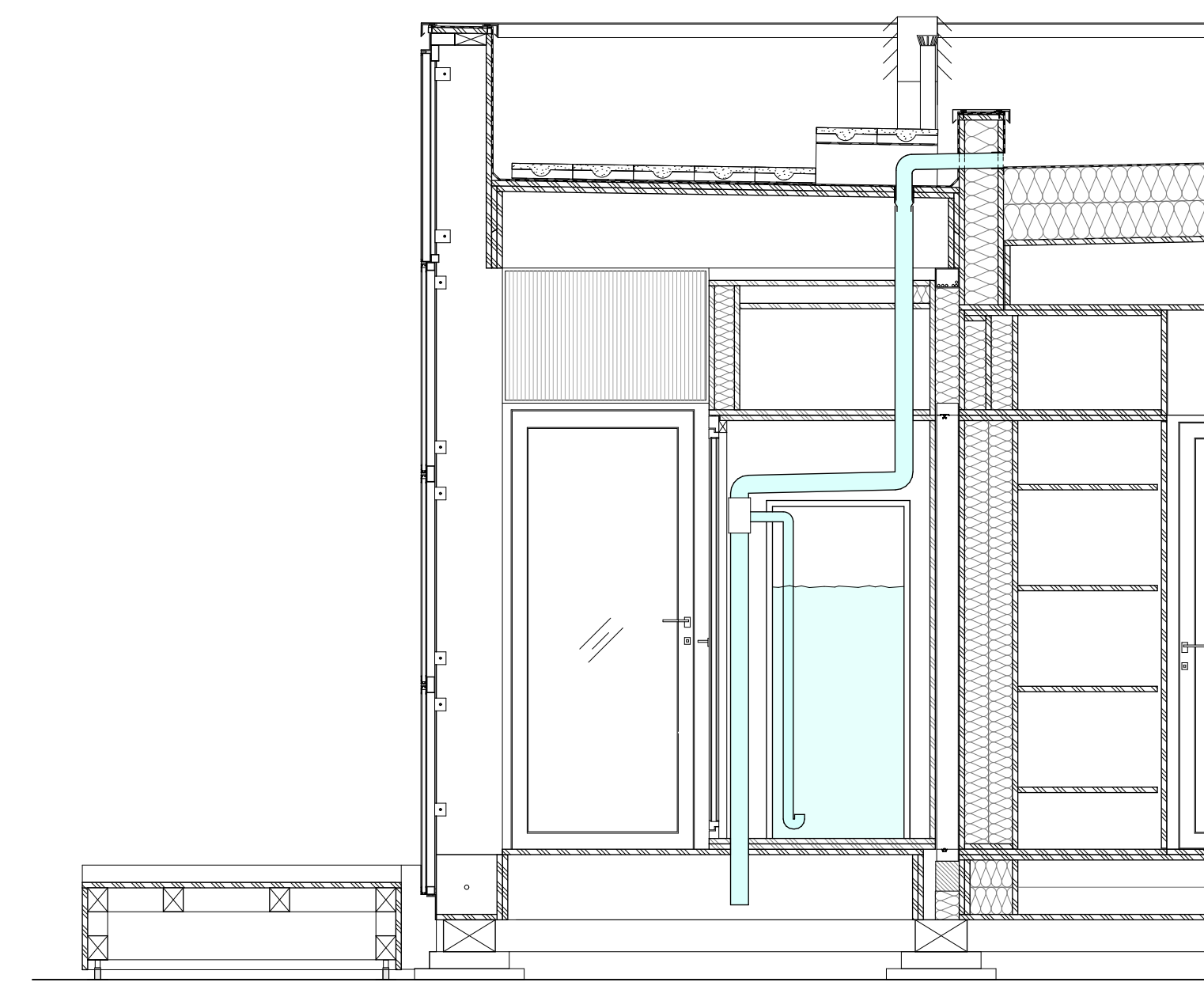
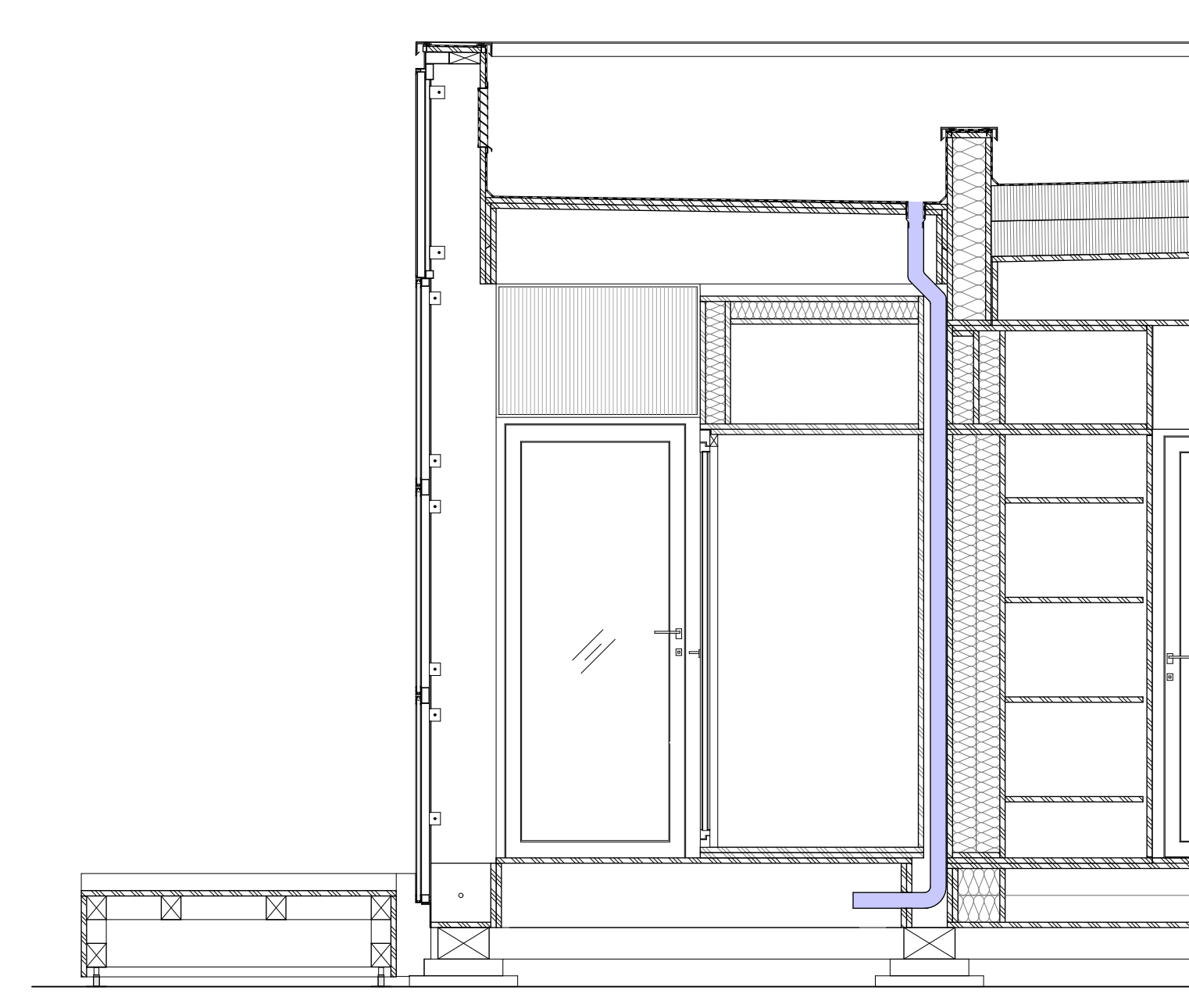
DRAWN BY: SIMON scale: NO

RAINWATER MANAGEMENT

P-113



A1 RAINWATER MANAGEMENT - roof plan



A1 RAINWATER MANAGEMENT - sections

Swiss Living Challenge



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CH-1700 Fribourg

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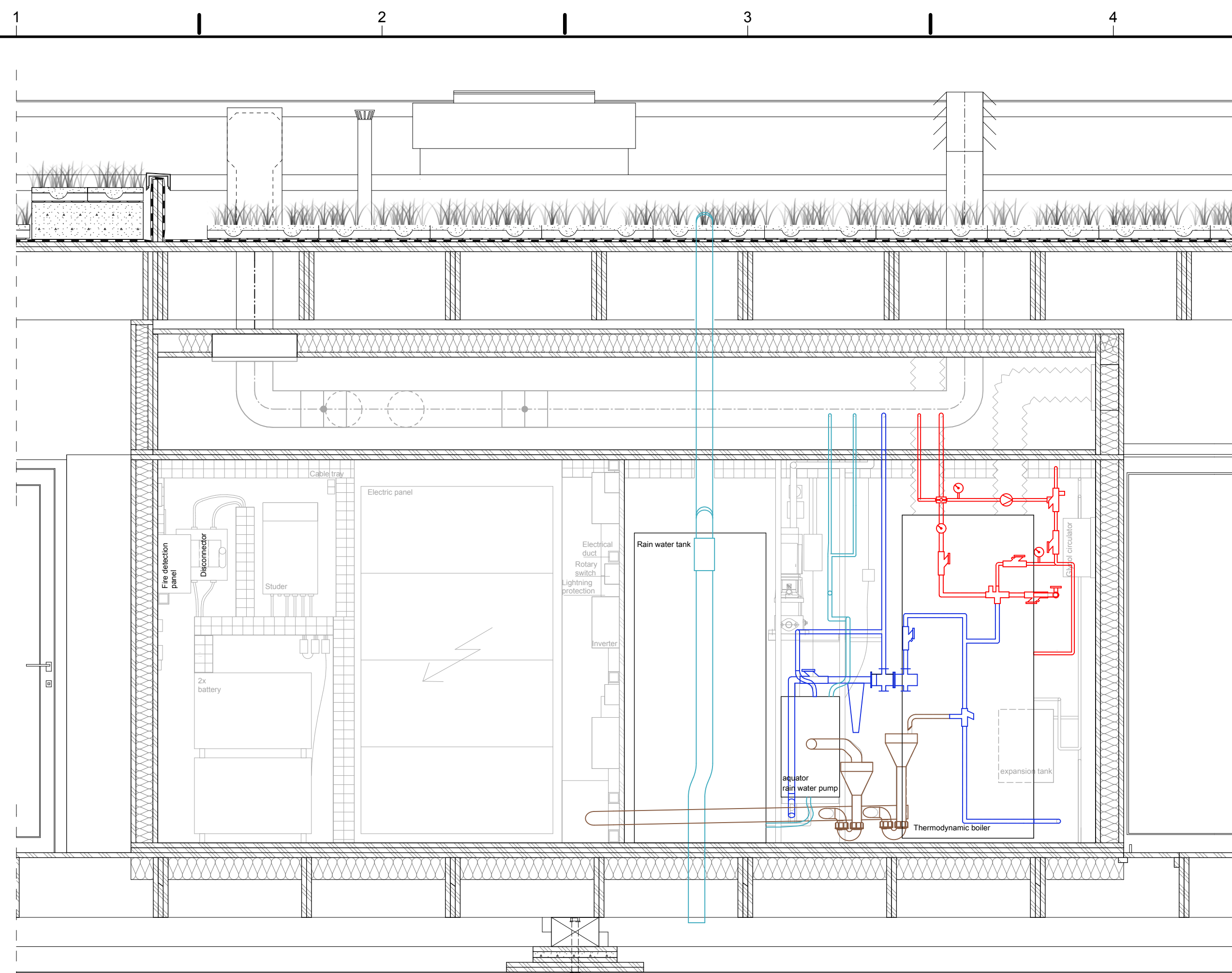
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02	2016-10-19	MODIFICATIONS SEMAINE 42
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Plans are drawn with metric system (cm)

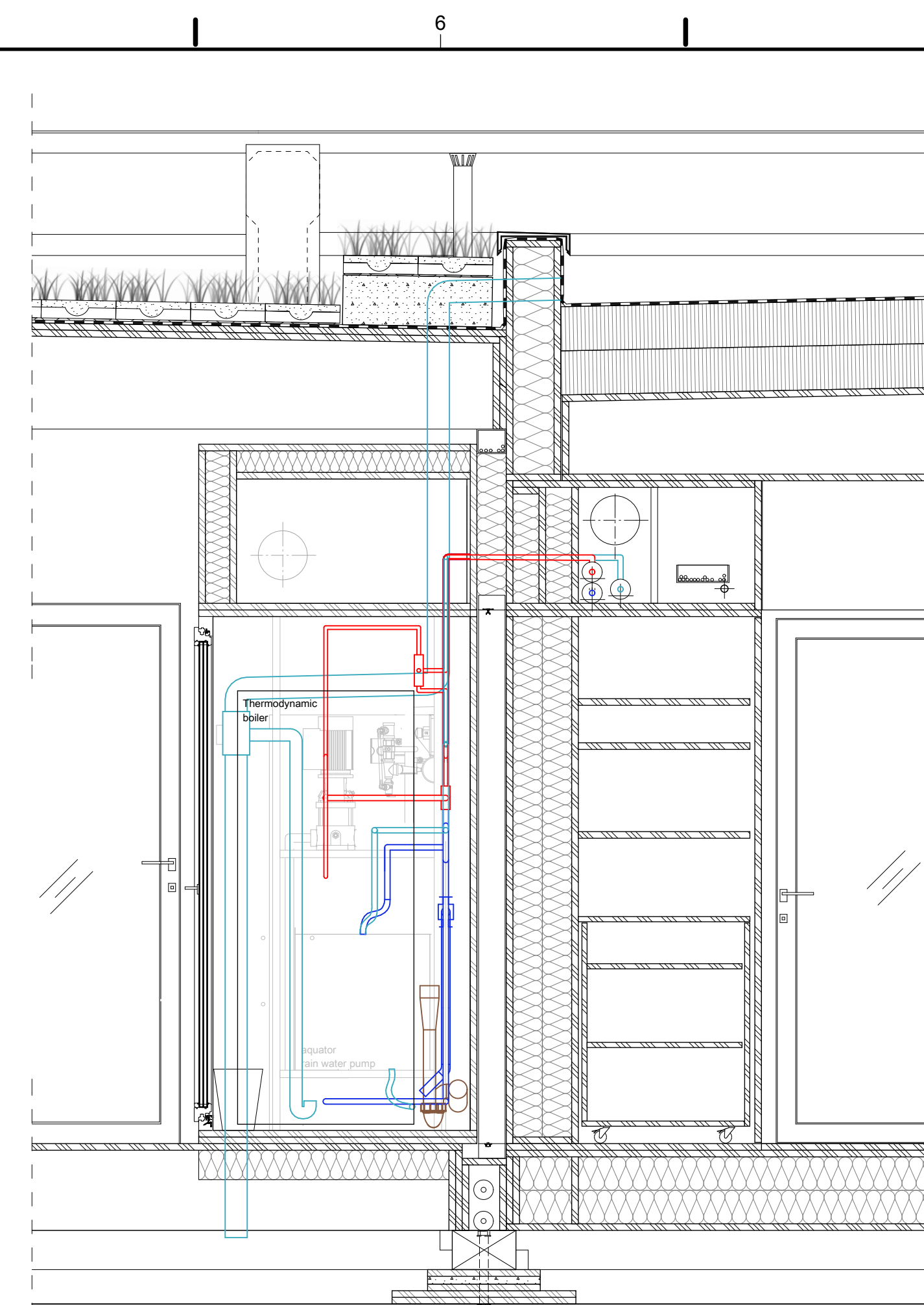
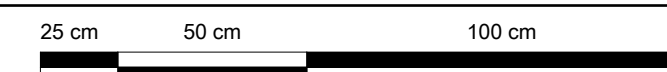
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TECHNICAL ROOM PLUMBING SECTIONS

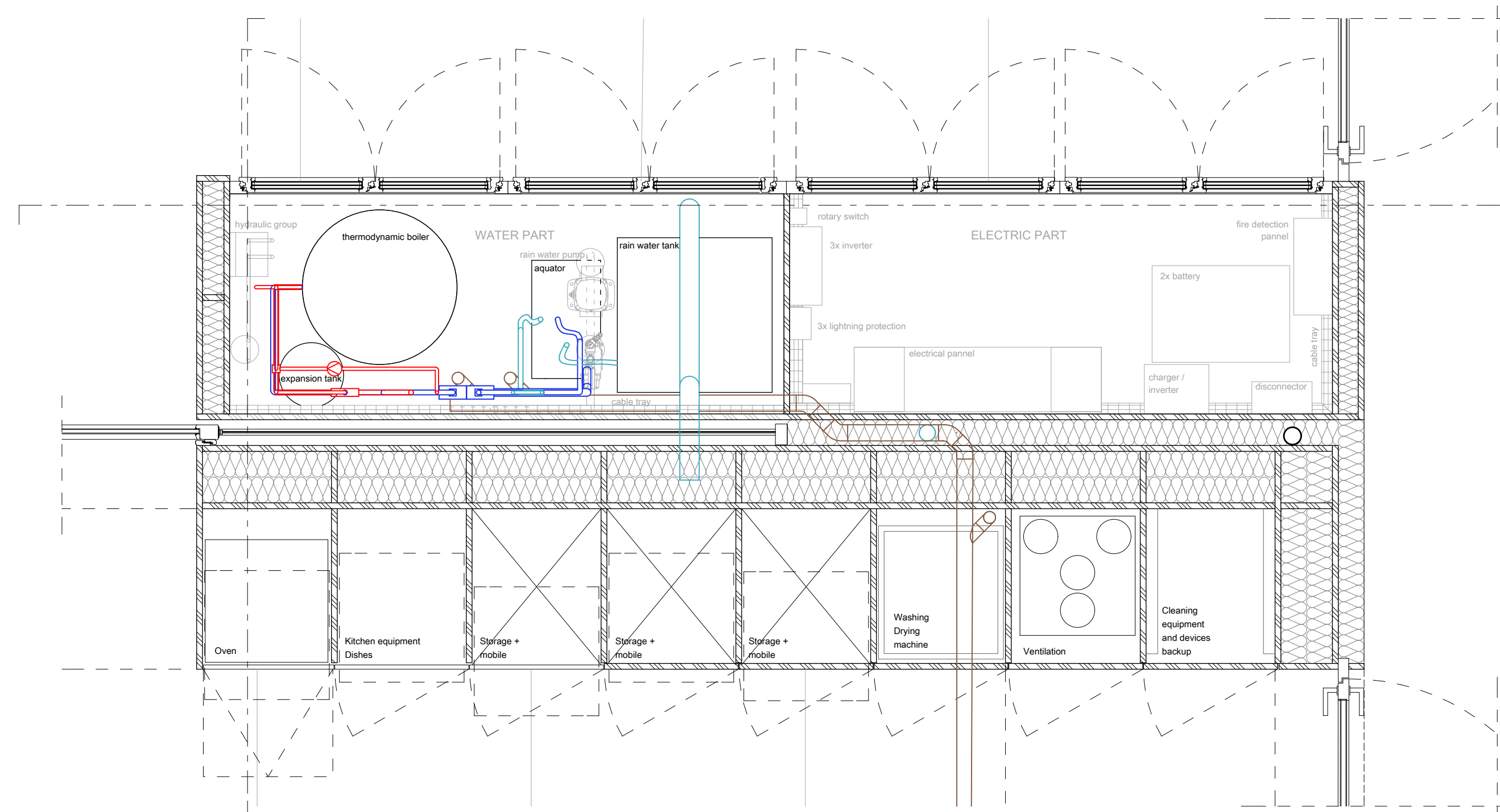
P-203



C1 TECHNICAL ROOM LONGITUDINAL SECTION (waste/rain/cold/hot water plumbing)



C5 TECHNICAL ROOM CROSS SECTION (waste/rain/cold/hot water plumbing)



A1 TECHNICAL ROOM PLAN (waste/rain/cold/hot water plumbing)



- HOT WATER
- COLD WATER
- WASTE WATER
- RAIN WATER

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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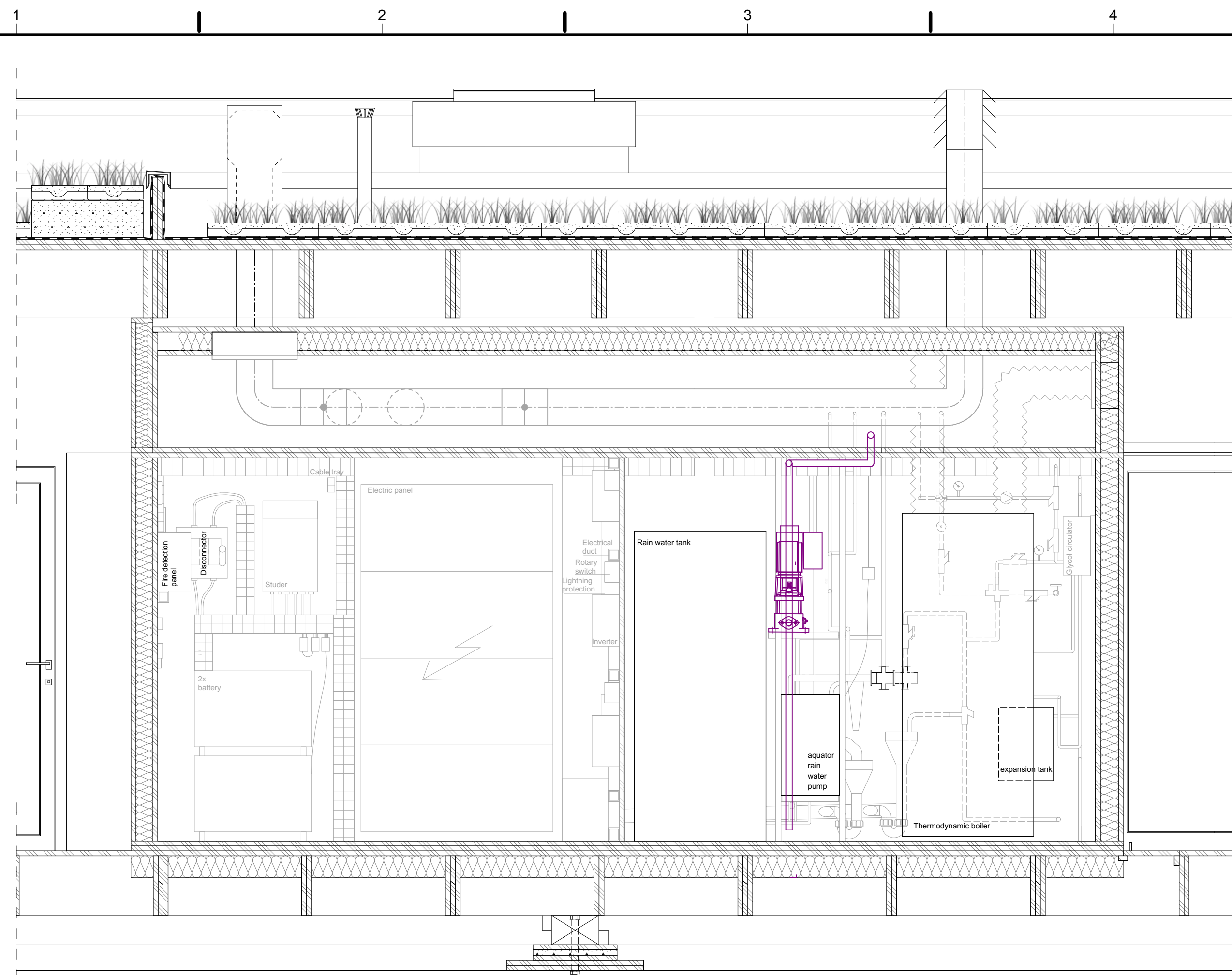
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Plans are drawn with metric system (cm)

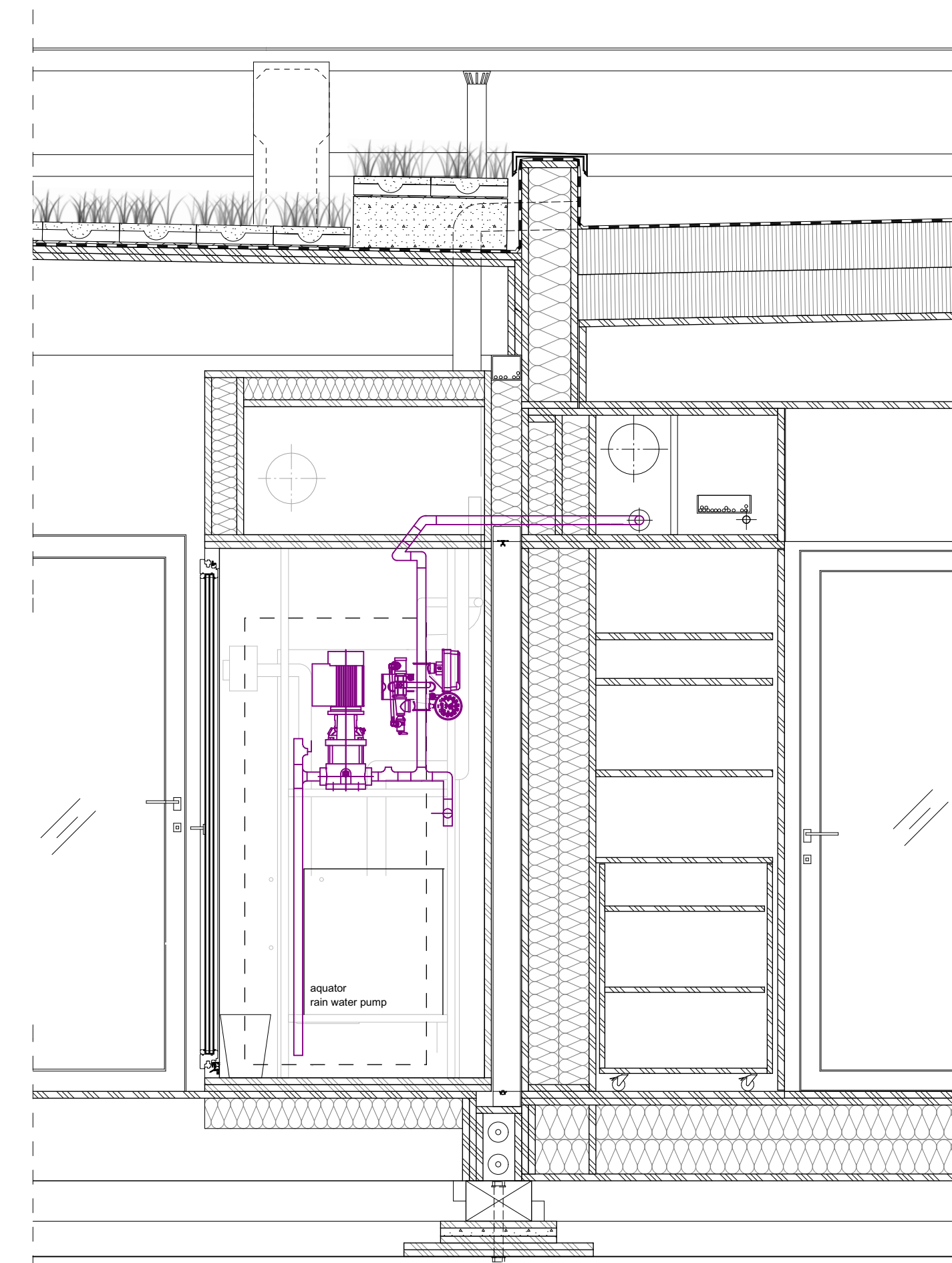
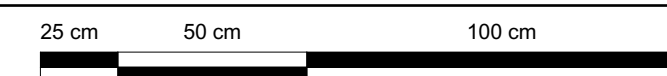
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TECHNICAL ROOM SPRINKLER

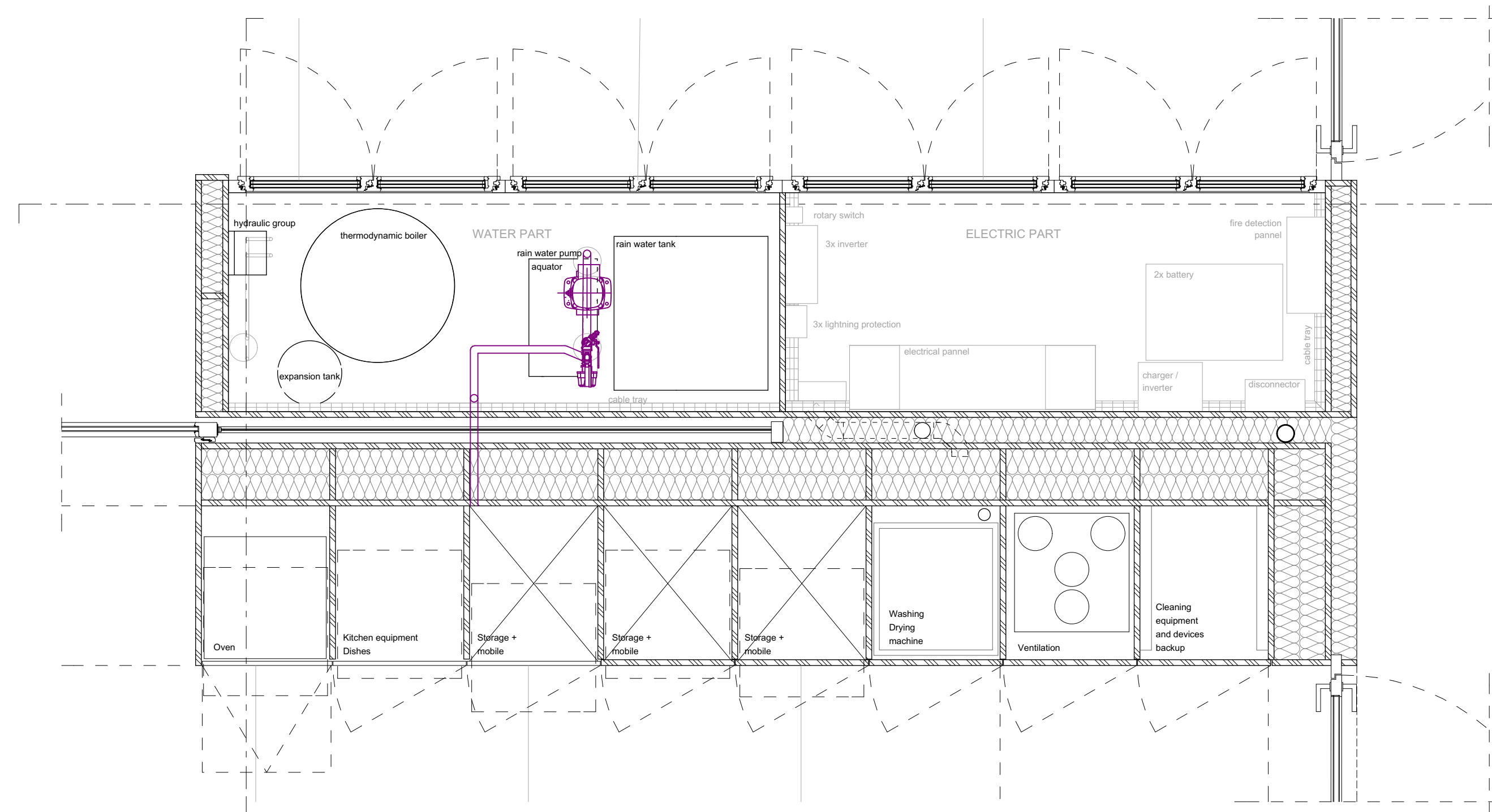
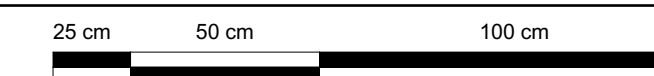
P-204



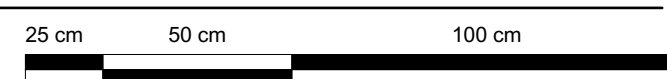
C1 TECHNICAL ROOM LONGITUDINAL SECTION (sprinkler plumbing system)



C5 TECHNICAL ROOM CROSS SECTION (sprinkler plumbing system)



A1 TECHNICAL ROOM PLAN (sprinkler plumbing system)



— SPRINKLER PLUMBING SYSTEM

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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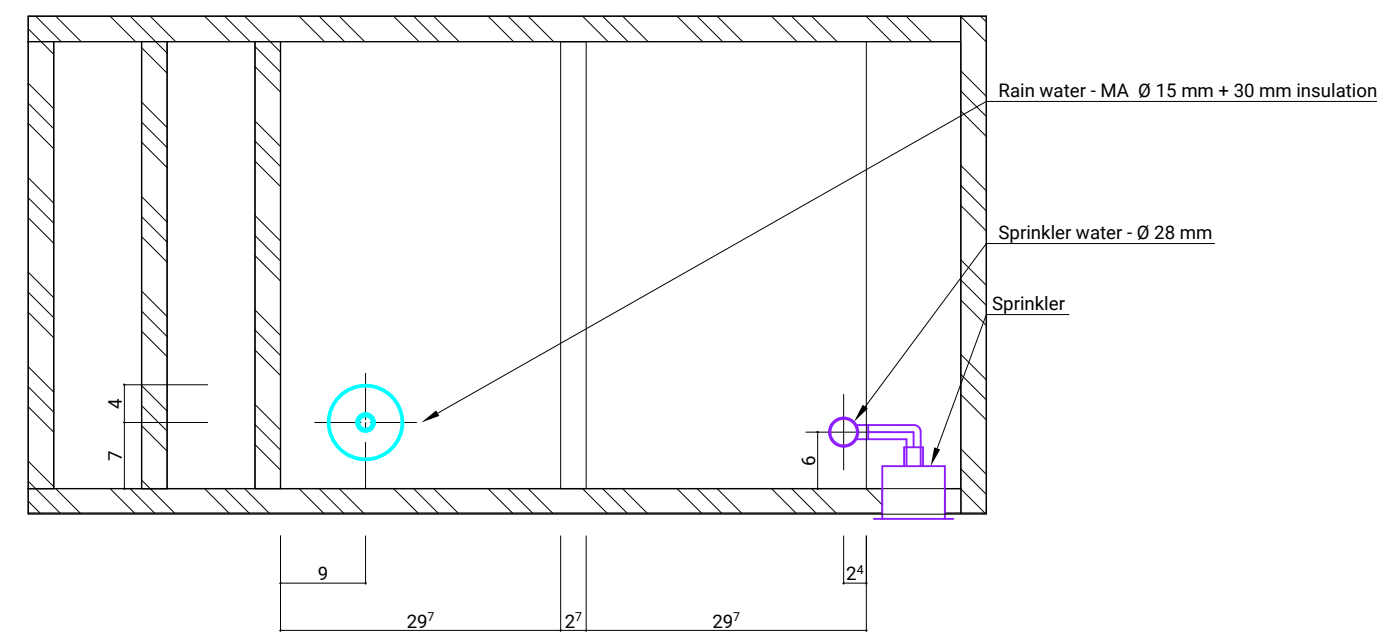
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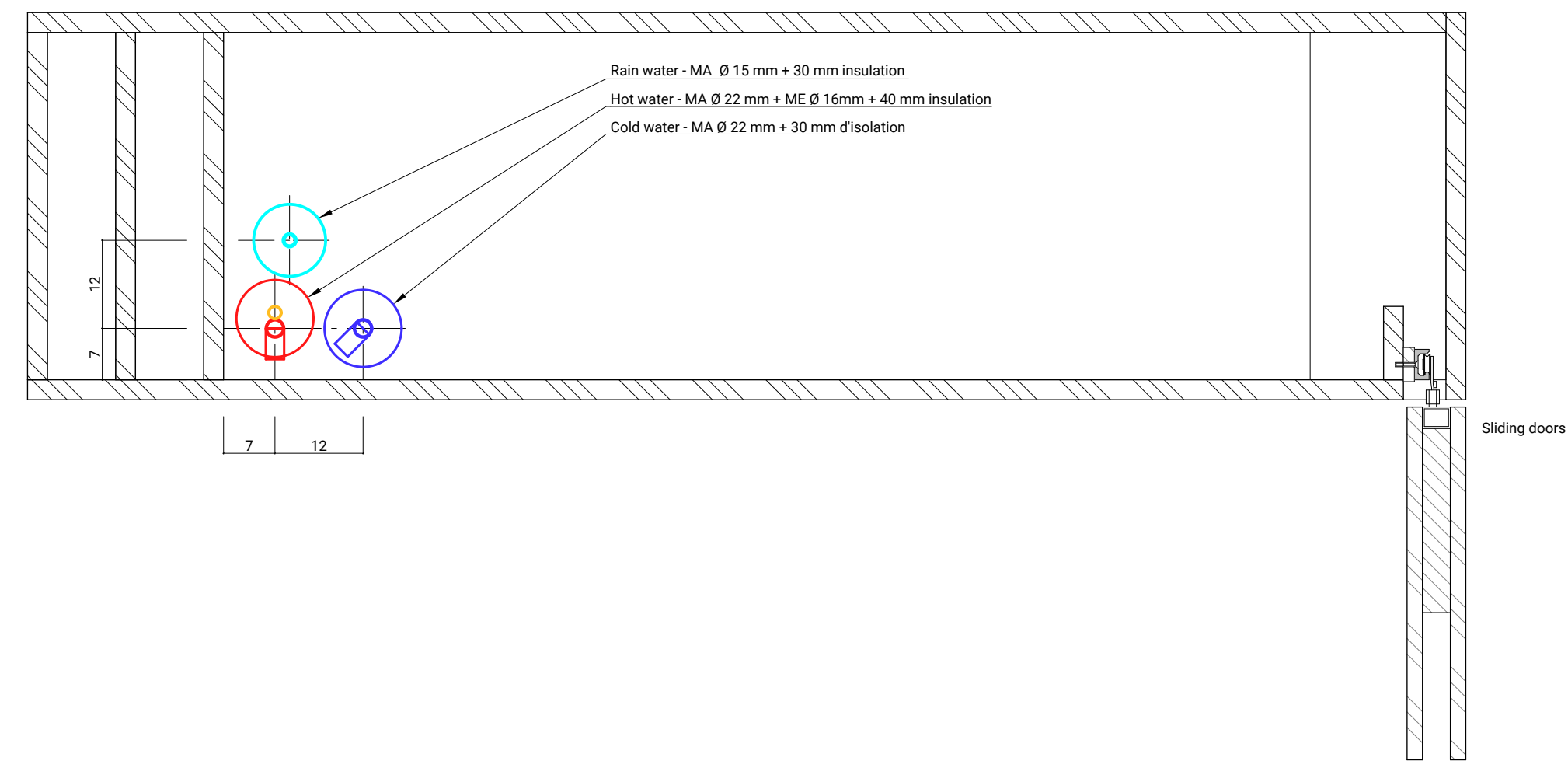
TECHNICAL RING PLUMBING SECTIONS

P-205

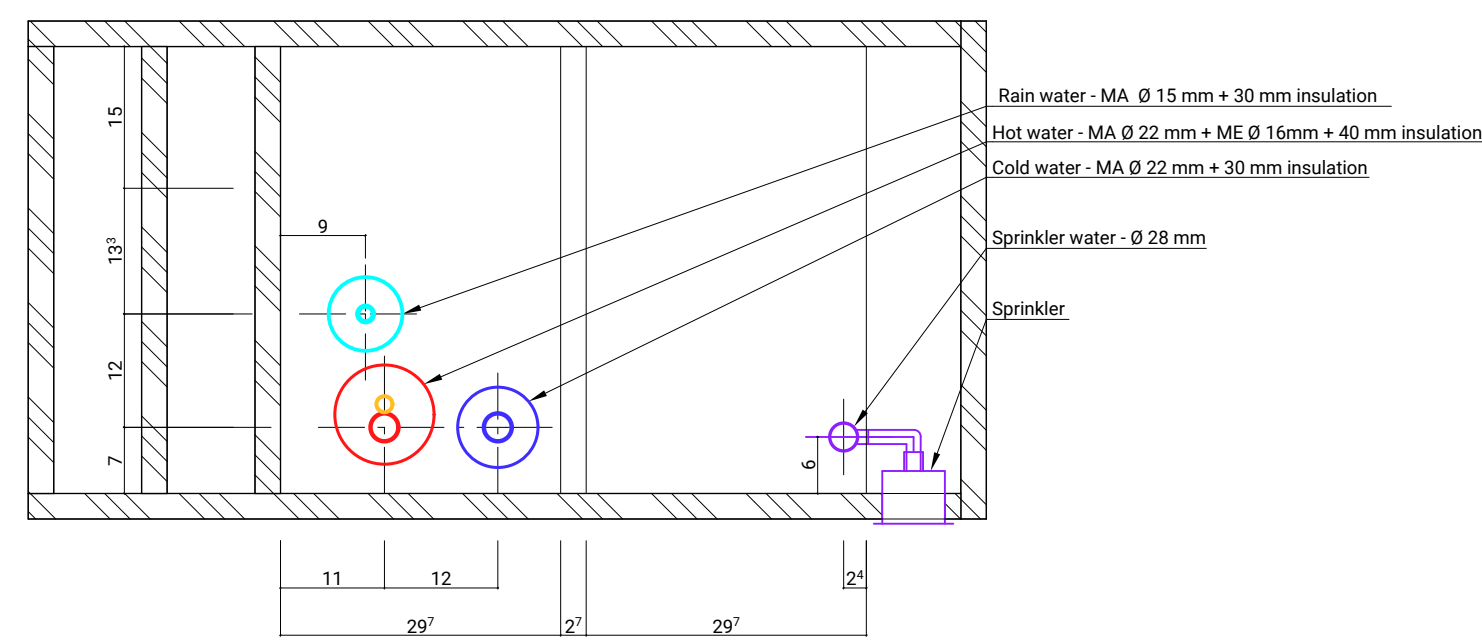
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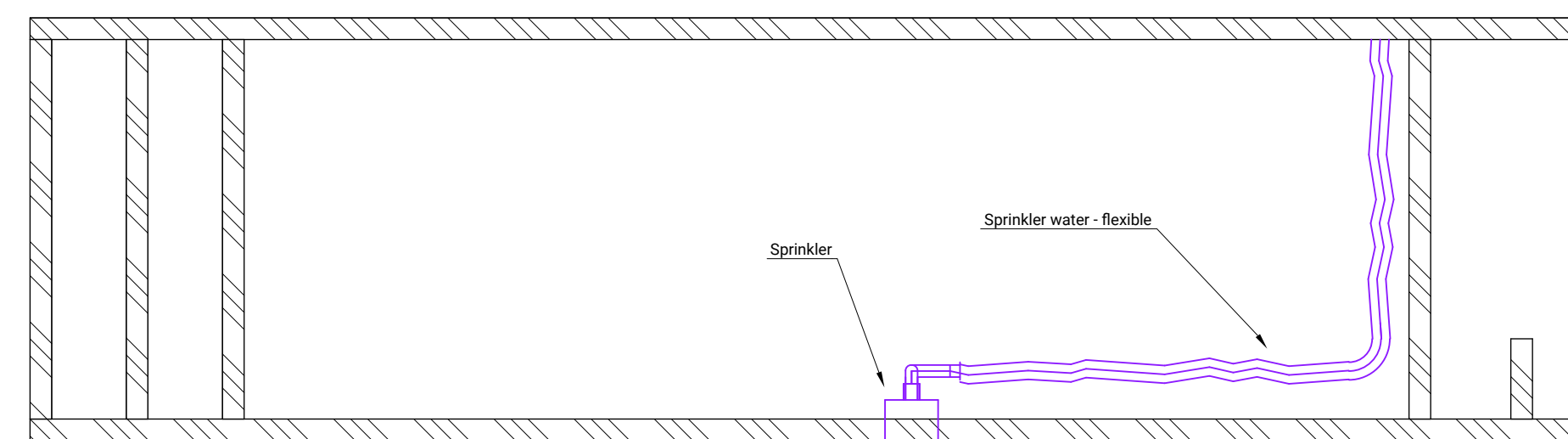
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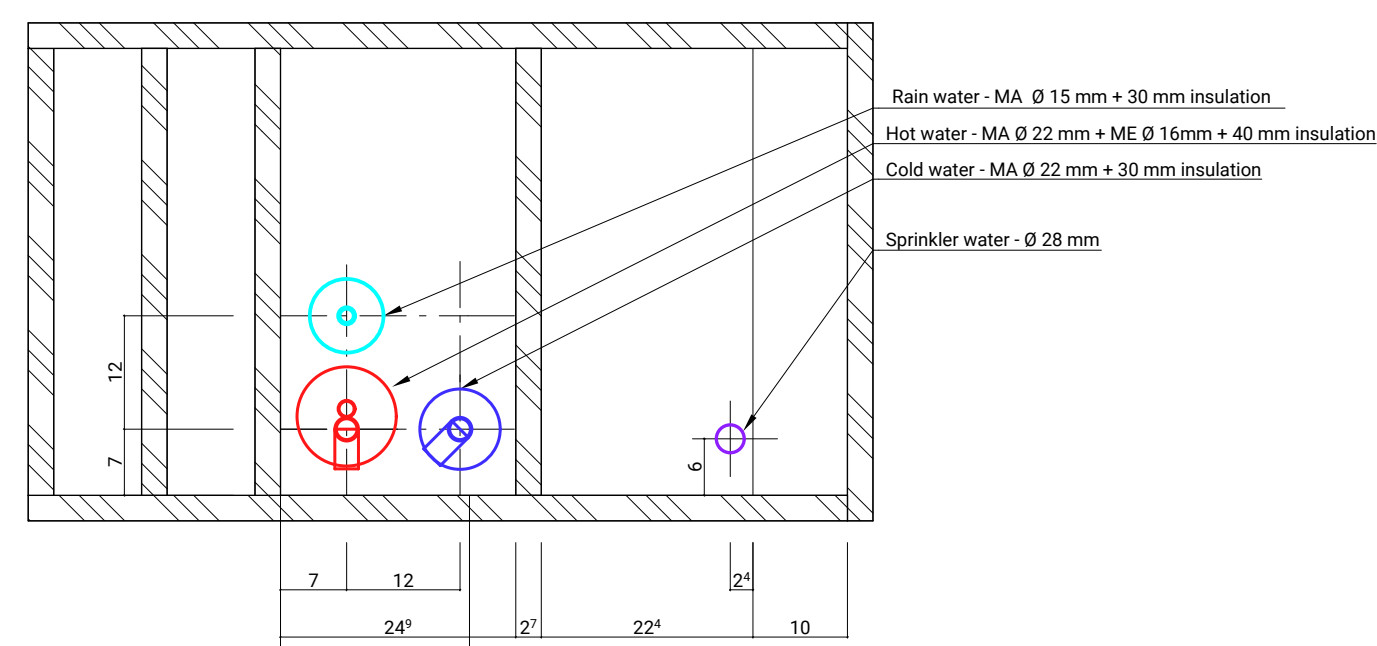
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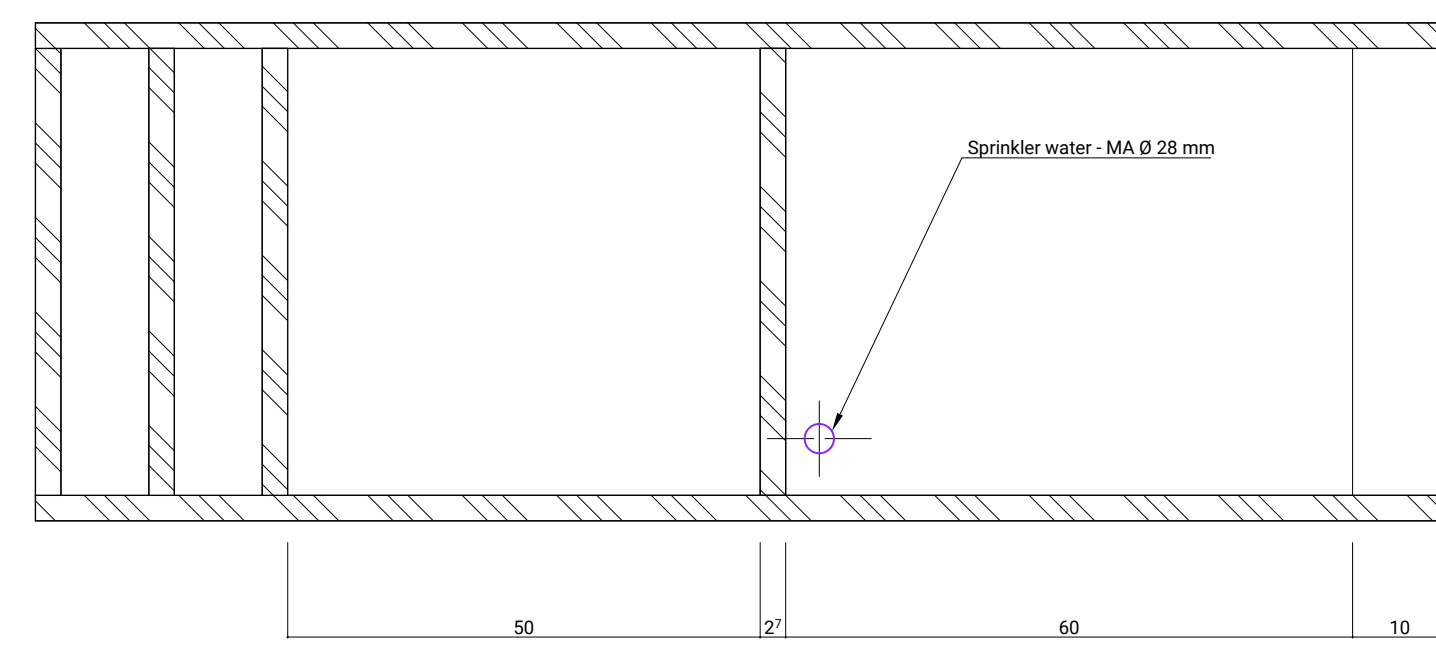
C31



C20



C40



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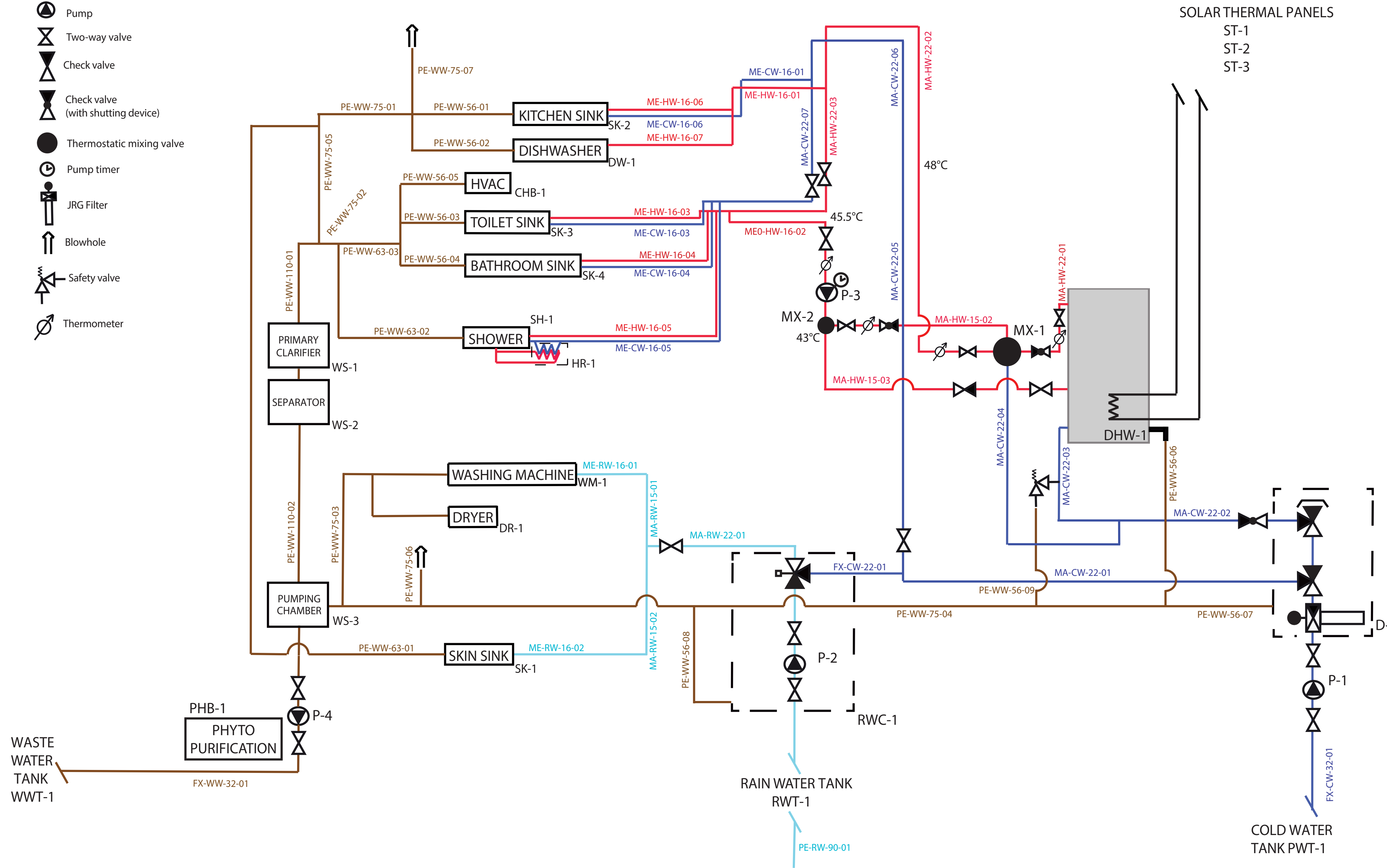
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PLUMBING SCHEMATIC

P-301

Legend

- Three-way valve (automatic)
- Three-way valve
- Pump
- Two-way valve
- Check valve
- Check valve (with shutting device)
- Thermostatic mixing valve
- Pump timer
- JRG Filter
- Blowhole
- Safety valve
- Thermometer



(A1) PLUMBING SCHEMATIC

Swiss Living Challenge



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Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: NO

WATER GENERAL CONCEPT

P-302

Sources

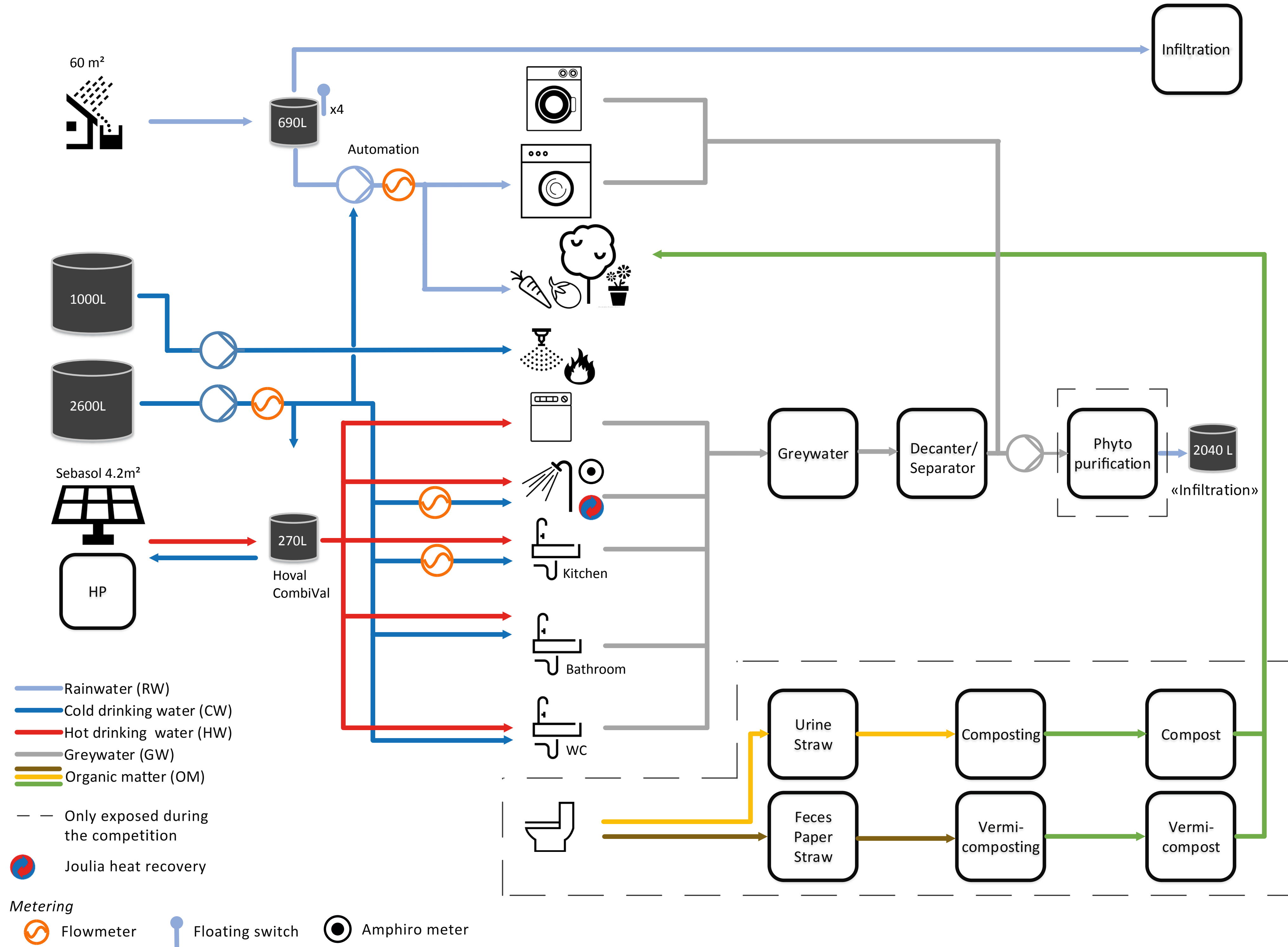
Storage

Interfaces

Inputs

Treatment

Outputs



Sources

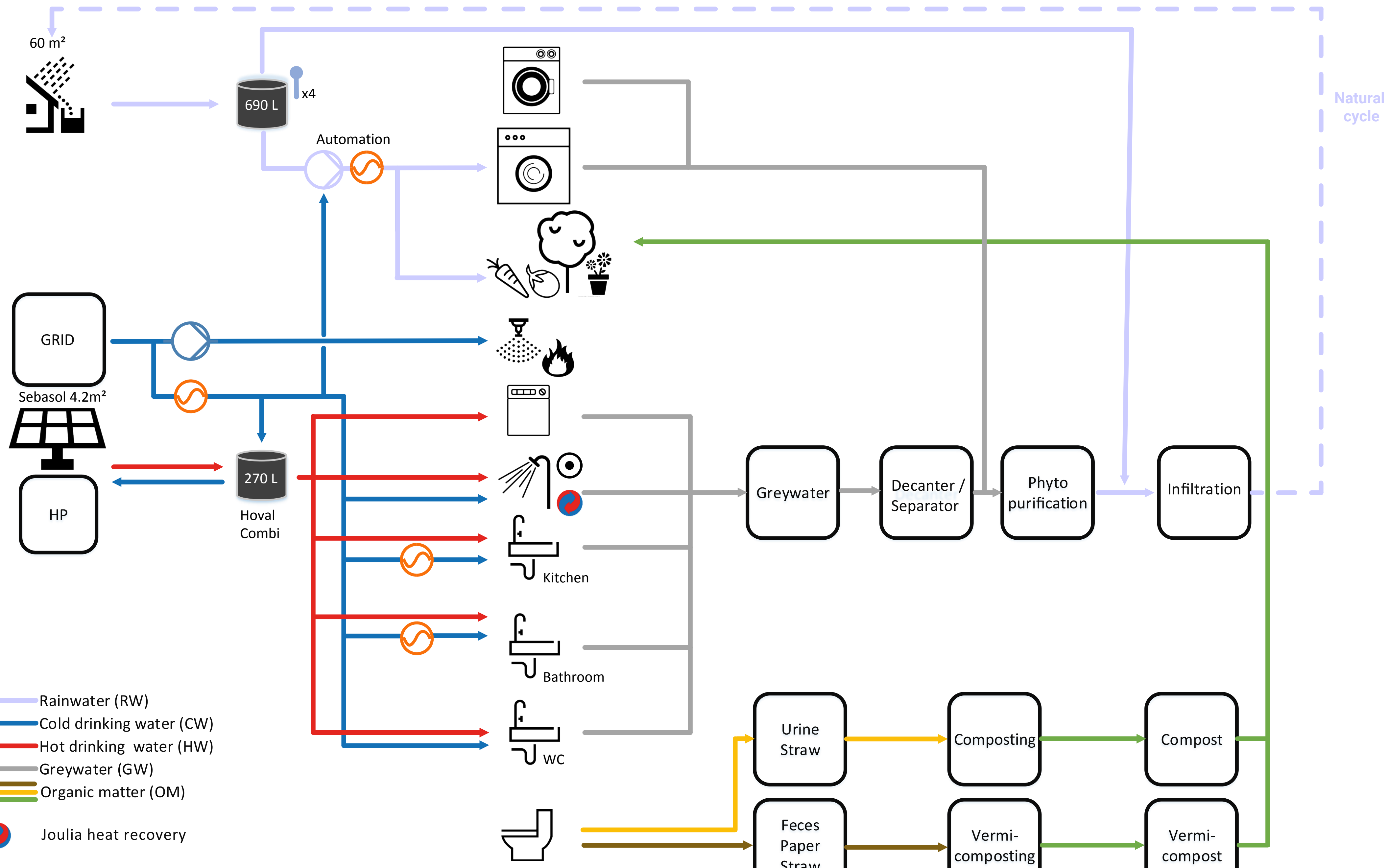
Storage

Interfaces

Inputs

Treatment

Outputs



- Rainwater (RW)
 - Cold drinking water (CW)
 - Hot drinking water (HW)
 - Greywater (GW)
 - Organic matter (OM)
 - Joulia heat recovery
- Metering**
- Flowmeter
 - Floating switch
 - Amphiro meter

Swiss Living Challenge



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DRAWN BY: SIMON scale: NO

WATER GENERAL CONCEPT

P-303

Swiss Living Challenge



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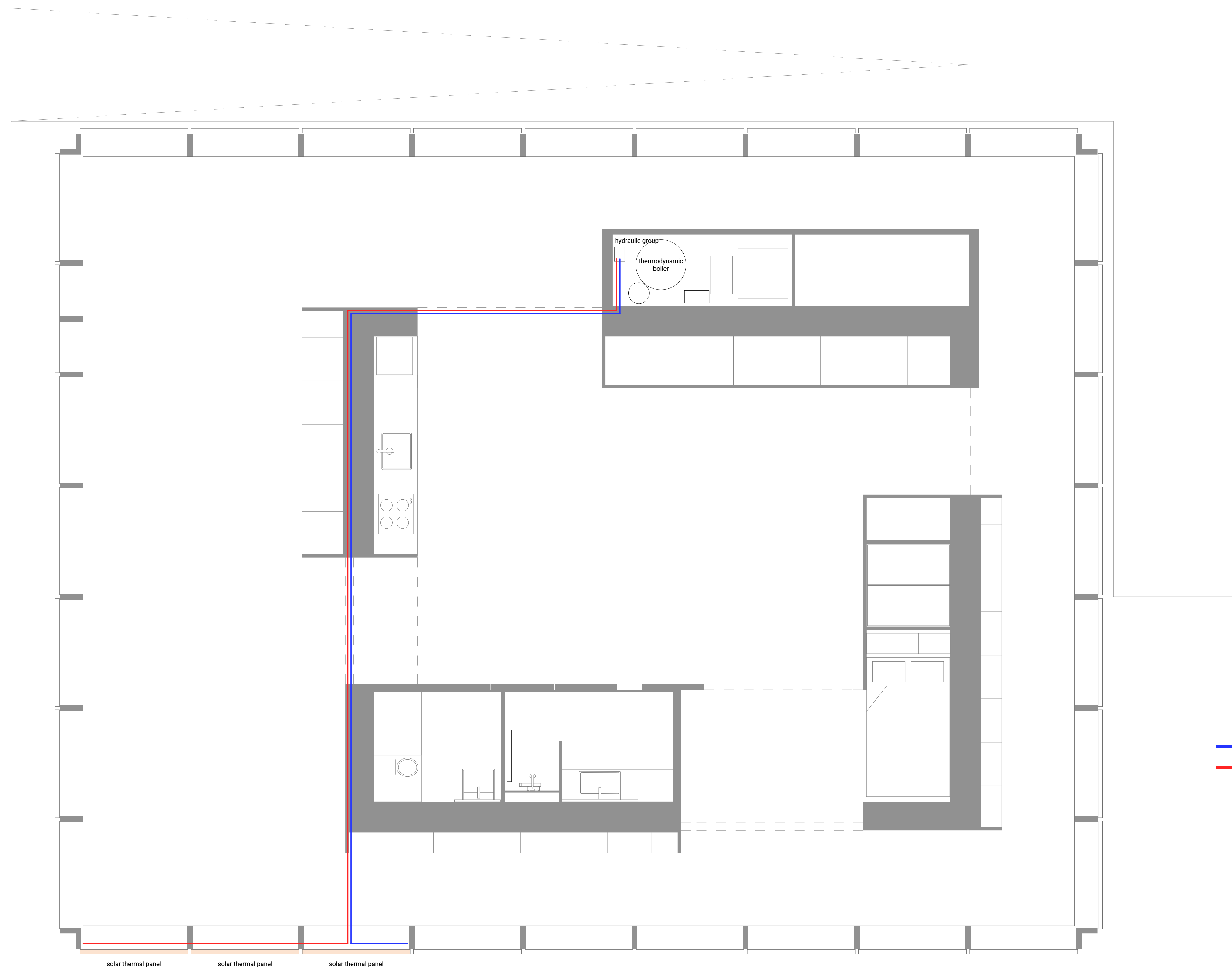
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Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:33

SOLAR THERMAL GENERAL NETWORK

P-311



— glycol cold line
— glycol hot line

(A1) SOLAR THERMAL GENERAL NETWORK



Swiss Living Challenge



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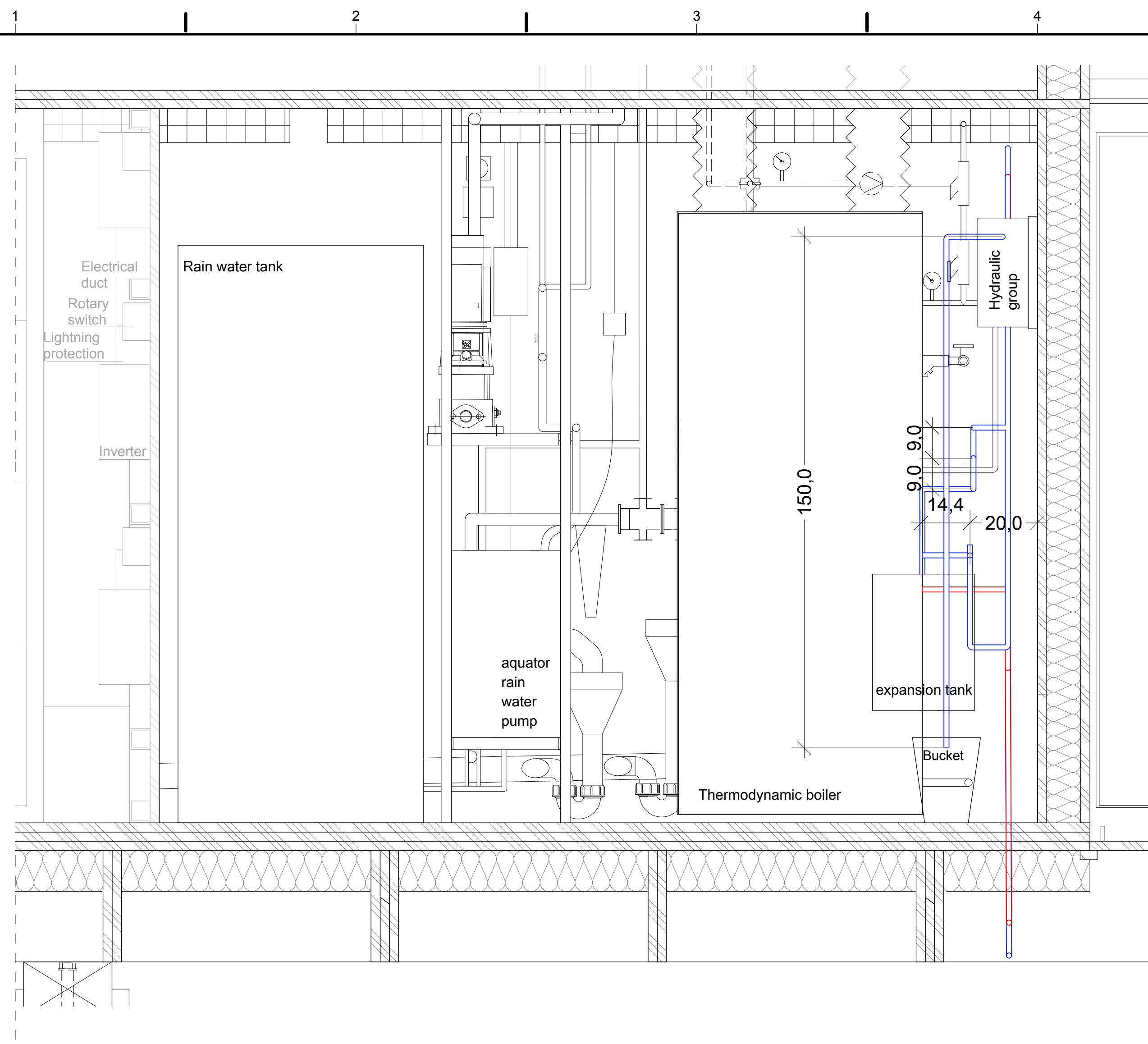
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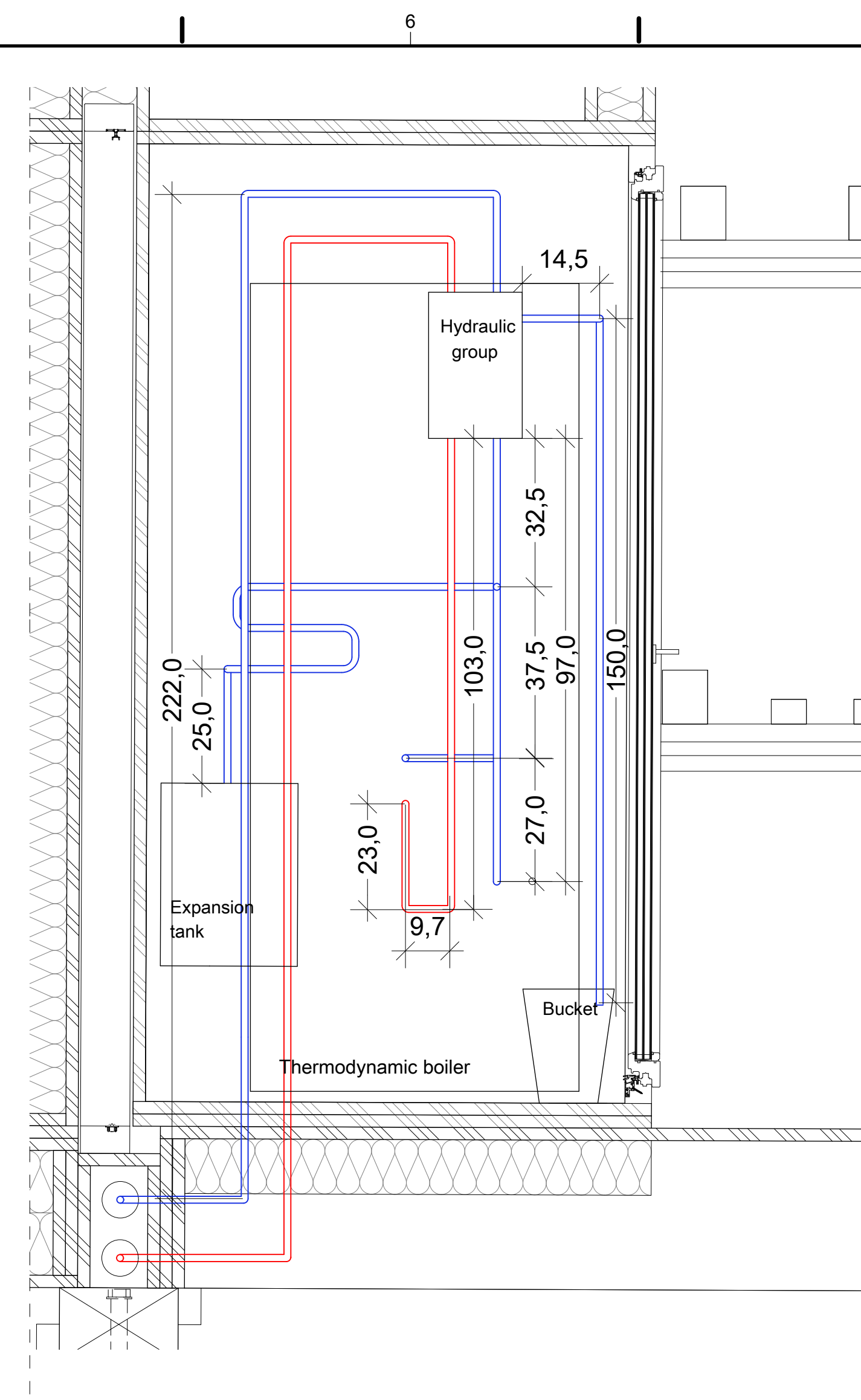
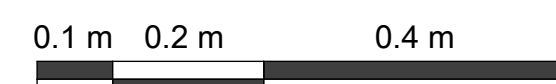
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TECHNICAL ROOM SOLAR THERMAL

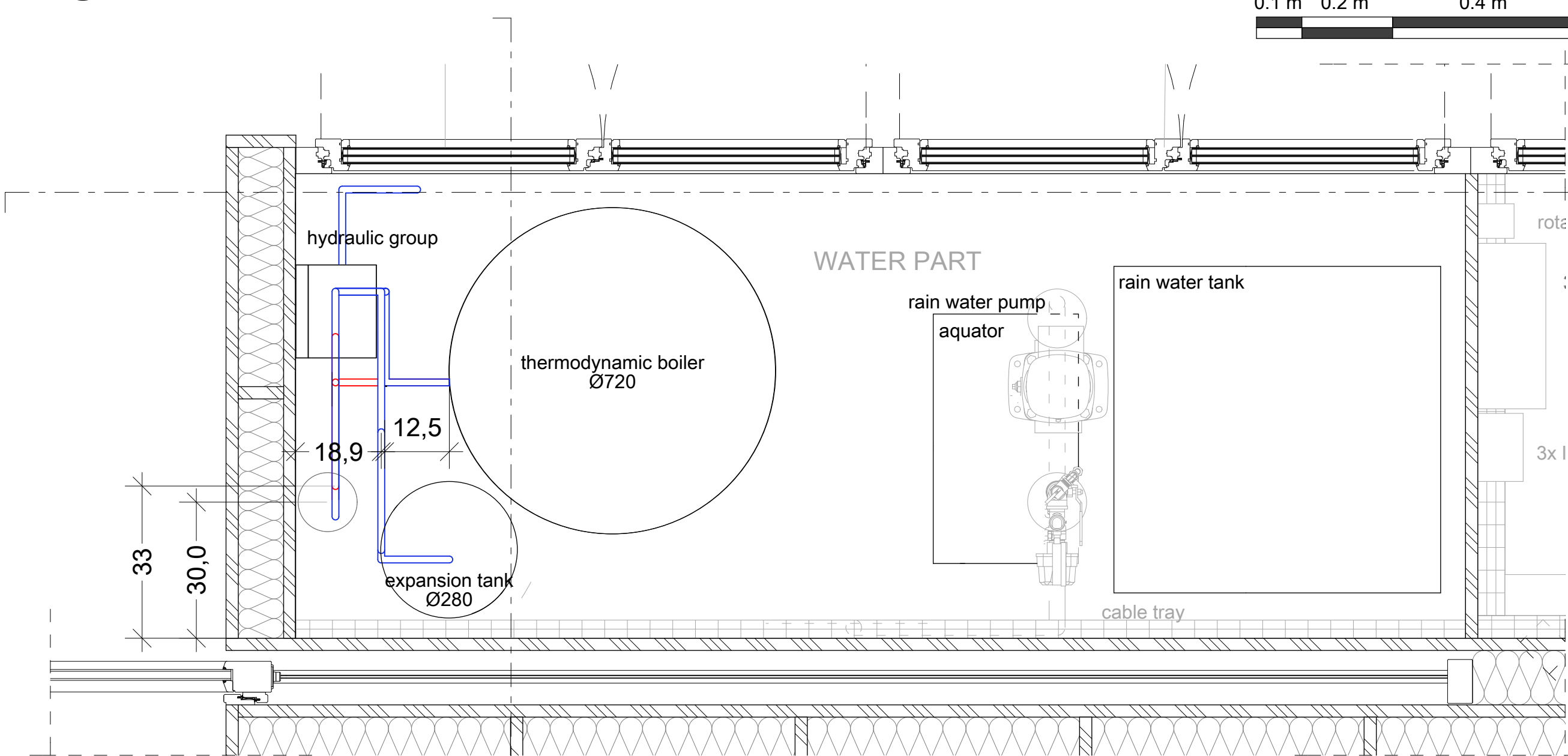
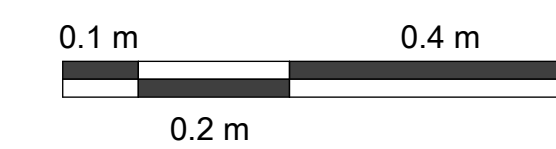
P-312



C1 TECHNICAL ROOM LONGITUDINAL SECTION (solar thermal installation)



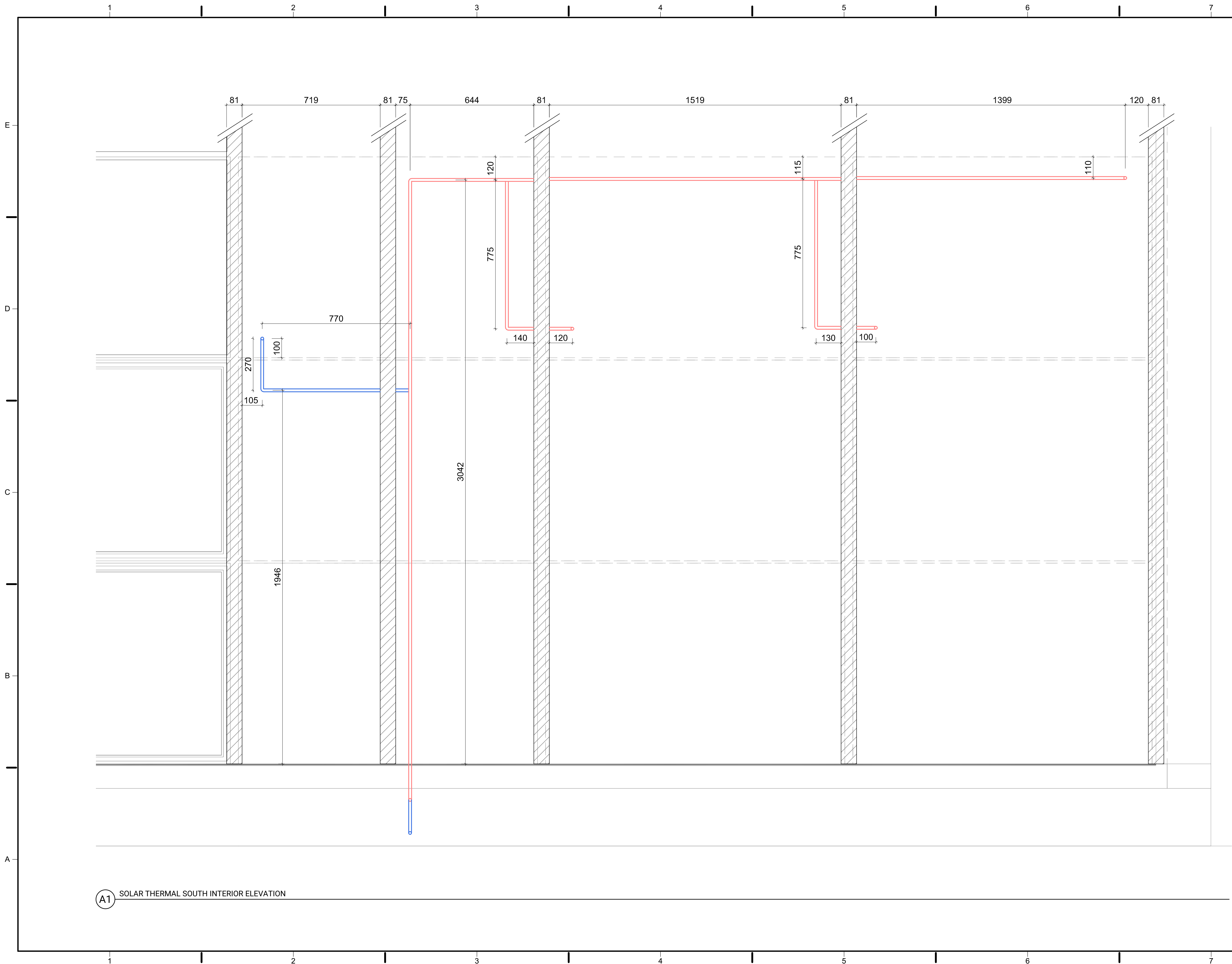
C5 TECHNICAL ROOM CROSS SECTION (solar thermal installation)



A1 TECHNICAL ROOM PLAN (solar thermal installation)



— HOT GLYCOL
 — COLD GLYCOL



Swiss Living Challenge



TEAM NAME: SWISS TEAM
 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
 http://www.swiss-living-challenge.ch

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DRAWN BY: SIMON scale: NO

SOLAR THERMAL SOUTH INTERIOR ELEVATION

P-313

(A1) SOLAR THERMAL SOUTH INTERIOR ELEVATION

Sensors

S4 = Temperature (departure cold water) [°C]
 S5 = Temperature (high, hot tank) [°C]
 S6 = Solar thermal temperature sensor [°C]
 S7/S8 = Temperatures (hot/cold water) [°C]

Regulators

TT-1 = Regulation solar thermal
 Hoval, Module solaire TopTronic E















Pumps

P-5 = solar circulation pump
 -> HOVAL, SPS 7 PM2
 P-3 = DHW recirculation pump
 -> Grundfos, UPS20 - 14 BX PM

Expansion vessels

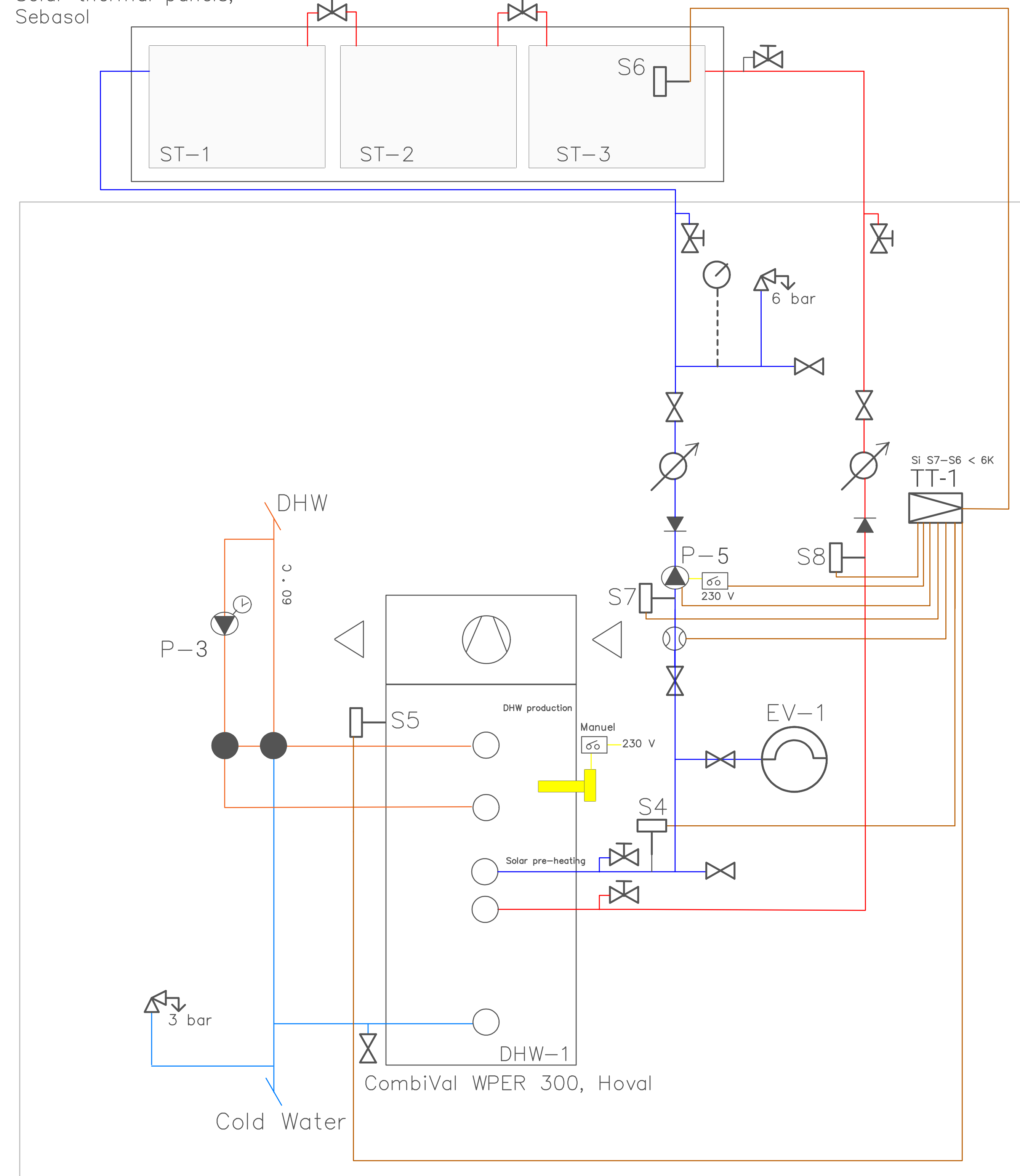
EV-1 = Expansion vessel for solar thermal
 SEBASOL

Caption

-  Thermometer
-  Pump
-  Two-way valve
-  Backflow preventer
-  Expansion vessel
-  Regulator
-  Safety valve
-  Temperature sensor
-  Barometer
-  Electrical switch
-  Purge valve
-  Pump timer
-  Flowmeter
-  Thermostatic mixing valve

- Domestic cold water
- Domestic hot water
- Glycol cold line
- Glycol hot line
- Regulation link

Solar thermal panels,
 Sebasol



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TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
 http://www.swiss-living-challenge.ch

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Plans are drawn with metric system (cm)

DRAWN BY: TENDON scale: NO

SOLAR THERMAL SCHEMATICS

P-314

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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Plans are drawn with metric system (cm)

DRAWN BY: COUSIN scale: NO

PLUMBING SCHEDULE

P-801

TYPE MARK	DESCRIPTION	MANUFACTURER	MODEL
WM-1	Washing Machine	V-Zug	Adora SLQ WP
DR-1	Dryer	V-Zug	Adora TSLQ WP
SK-1	Skin sink	Romay	Classic 50/30
	Skin faucet	Similor Kugler	Siga
SK-2	Kitchen sink	SUTER INOX	Accento A 50U
	Kitchen sink faucet	SUTER INOX	Suter Merano
DW-1	Dishwasher	V-Zug	Adora SL WP
SK-3	Toilet sink	Laufen	Kartell
	Toilet sink faucet	Arwa	Twinplus
SK-4	Bathroom sink	Laufen	VAL
	Bathroom sink faucet	Arwa	Twinplus
SH-1	Shower head	Hansgrohe	Crometta 85 Green
DHW-1	Thermodynamic boiler	HOVAL	CombiVal WPER 300
MX -	Thermodynamic mixing valves	Georg Fischer JRG AG	JRGUMAT
D-1	Distribution valves unit	Georg Fischer JRG AG	JRGUSIT NG
HR-1	Shower heat recovery	Joulia	3P
RWC-1	Command system for rainwater-clearwater	Hug & Zollet AG	Aquator 15/4
RWC-2	Filter - collector	Hug & Zollet AG	Garden rain water collector, grey
PWT-1	Supply water tank (2.6 m ³)	LABARONNE CITAF	Custom designed flexible tank
WWT-1	Wastewater tank (2.0 m ³)	LABARONNE CITAF	Custom designed flexible tank
RWT-1	Rainwater tank (0.69 m ³)	Hug & Zollet AG	AQF 690 L
P-1	Clearwater pump	Grundfos Pumpen AG	Hydro Solo-E
P-2	Rainwater pump	INCLUDED IN RWC-1	-
P-3	Recirculation pump	Grundfos Pumpen AG	UPS20 - 14 BX PM
P-4	Phyto pump	Grundfos Pumpen AG	UNILIFT KP150-AV-1
ME-	Crosslinked PE pipe	Georg Fischer JRG AG	Sanipex
ME0-	Crosslinked PE pipe without outside layer	Georg Fischer JRG AG	Sanipex
MA-	Stainless steel pipe	Geberit	Mapress inox
PE-	PE pipe	Geberit	PE
FX-	Flex pipe	Gomatec Wilba SARL	Spiral PVC hard int. Smooth
WS - 1	Primary clarifier	Canplast SA	Parallelepiped tank type ECOPLAST (custom made)
WS - 2	Grease Separator	Canplast SA	Parallelepiped tank type ECOPLAST (custom made)
WS - 3	Pumping chamber	Canplast SA	Cylindric tank type ECOPLAST (custom made)
PHB-1	Phytopurification bed		-
FM-	Flow-Meter	Gwf MessSysteme AG	Singlejet UNICOcoder MP
APR	Shower consumption meter	Amphiro	Amphiro meter
FS-	Rainwater tank floating switches	Hug & Zollet AG	Yellow floating switch with 3m cable

Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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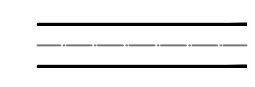

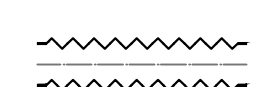


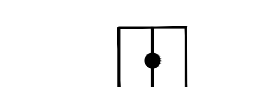





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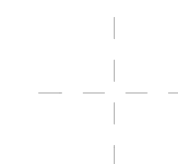
DRAWN BY: PELTIER scale: NO

MECHANICAL SYMBOLS AND NOTES

M-001

MECHANICAL SYMBOLS

-  VENTILATION DUCT
-  INSULATED VENTILATION DUCT
-  FLEXIBLE VENTILATION DUCT
-  PLENUM FOR AIR DIFFUSER
-  VENTILATION DUCT REDUCTION
-  VENTILATION BY-PASS
-  OUTDOOR FRESH AIR
-  INDOOR FRESH AIR
-  INDOOR STALE AIR
-  OUTDOOR STALE AIR
-  CONDITIONED AIR (Heating/Cooling)



Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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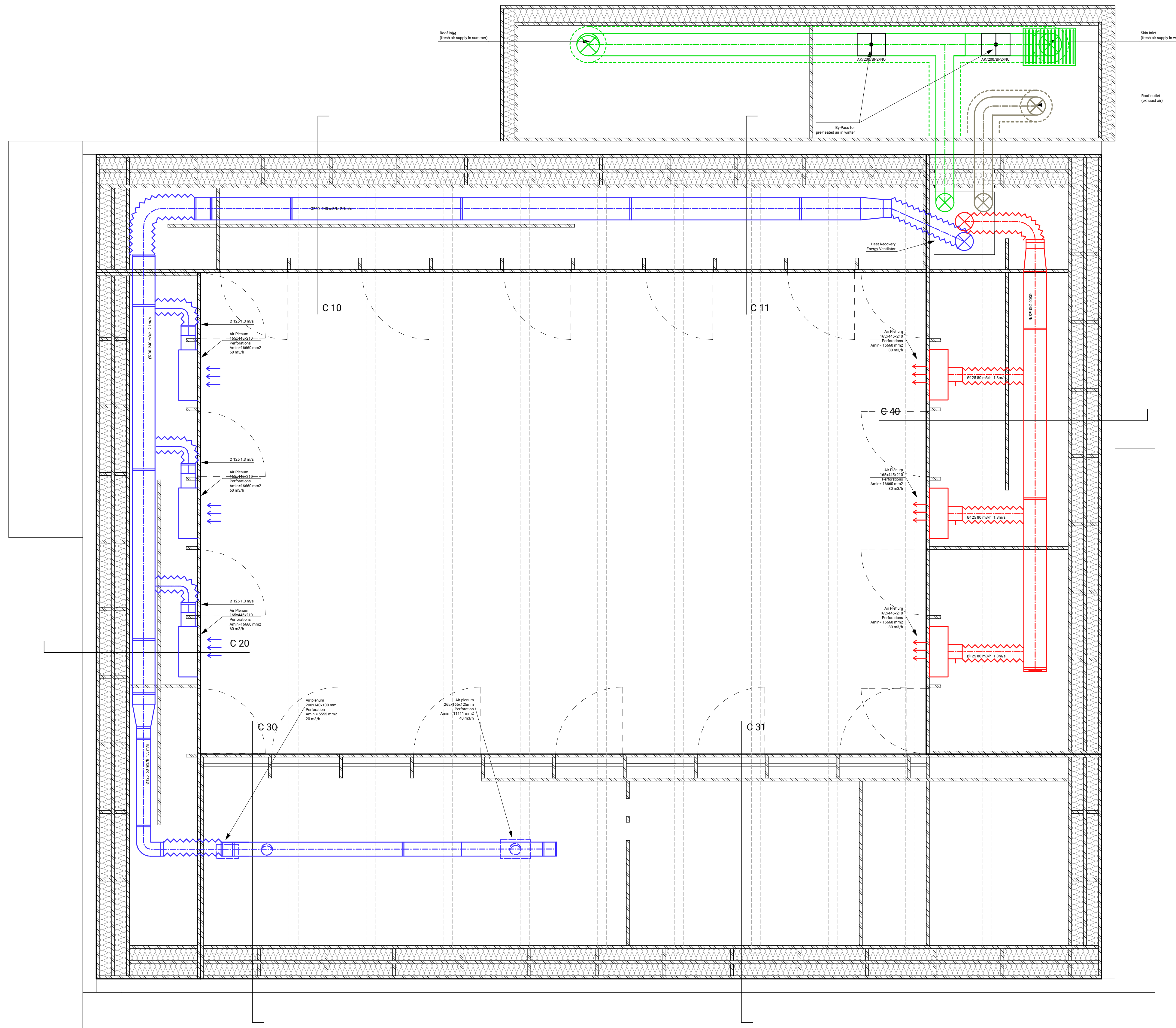
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VENTILATION EQUIPMENT AND DISTRIBUTION PLAN

M-101



(A1) VENTILATION EQUIPMENT AND DISTRIBUTION PLAN



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 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
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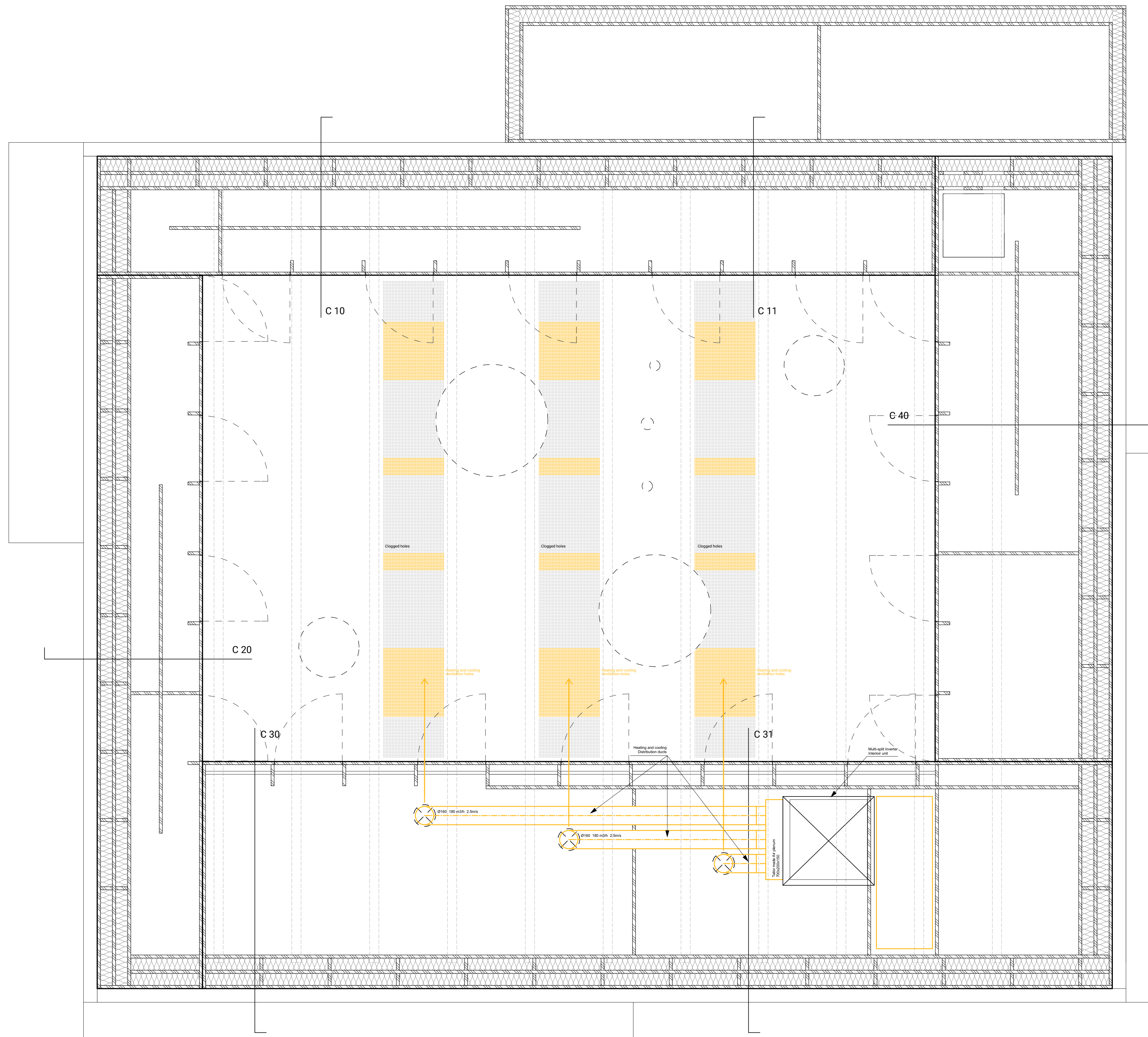
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Plans are drawn with metric system (cm)

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HEATING AND COOLING DISTRIBUTION

M-401



Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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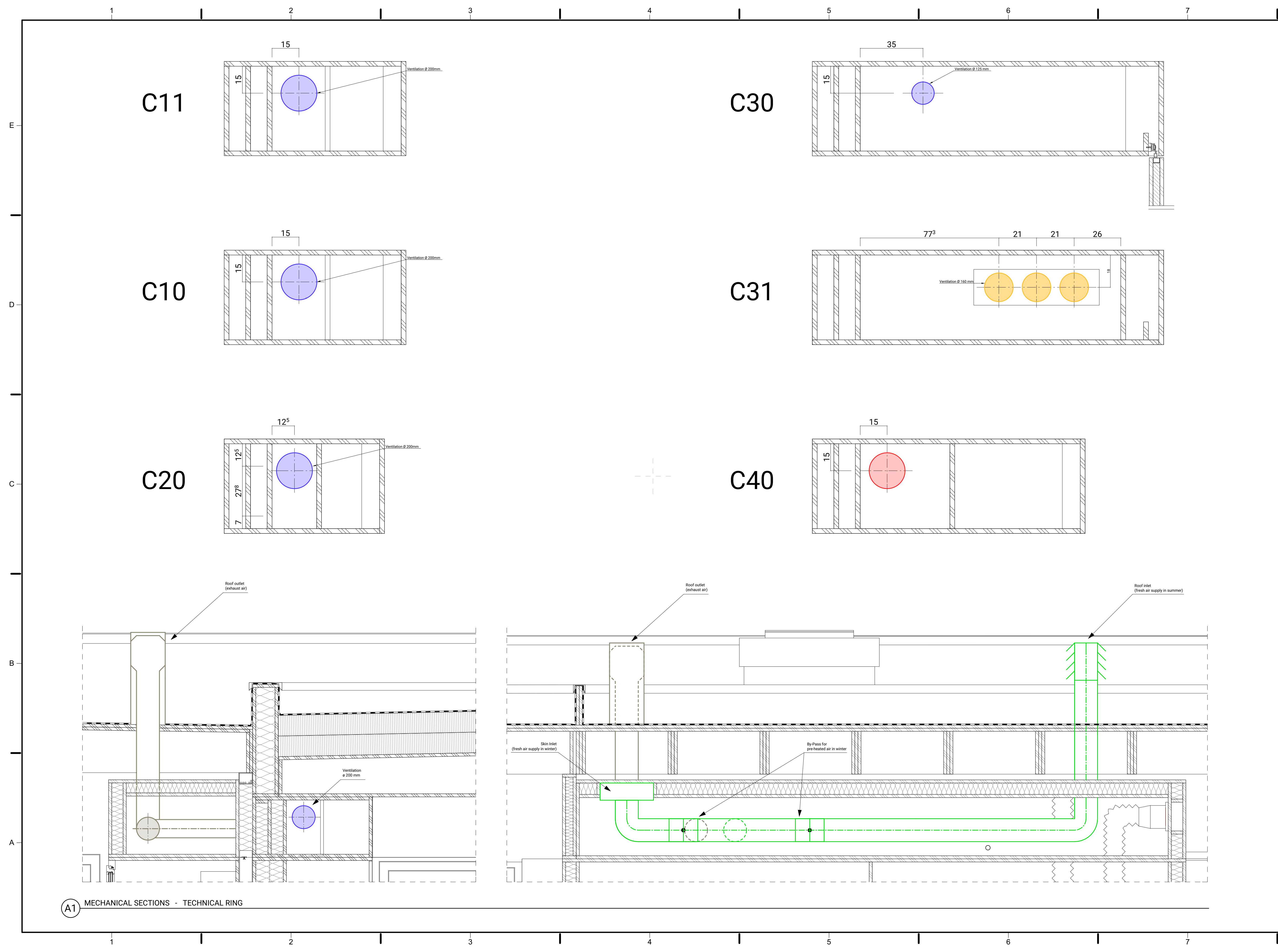
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Plans are drawn with metric system (cm)

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MECHANICAL SECTIONS

M-501



A1 MECHANICAL SECTIONS - TECHNICAL RING

Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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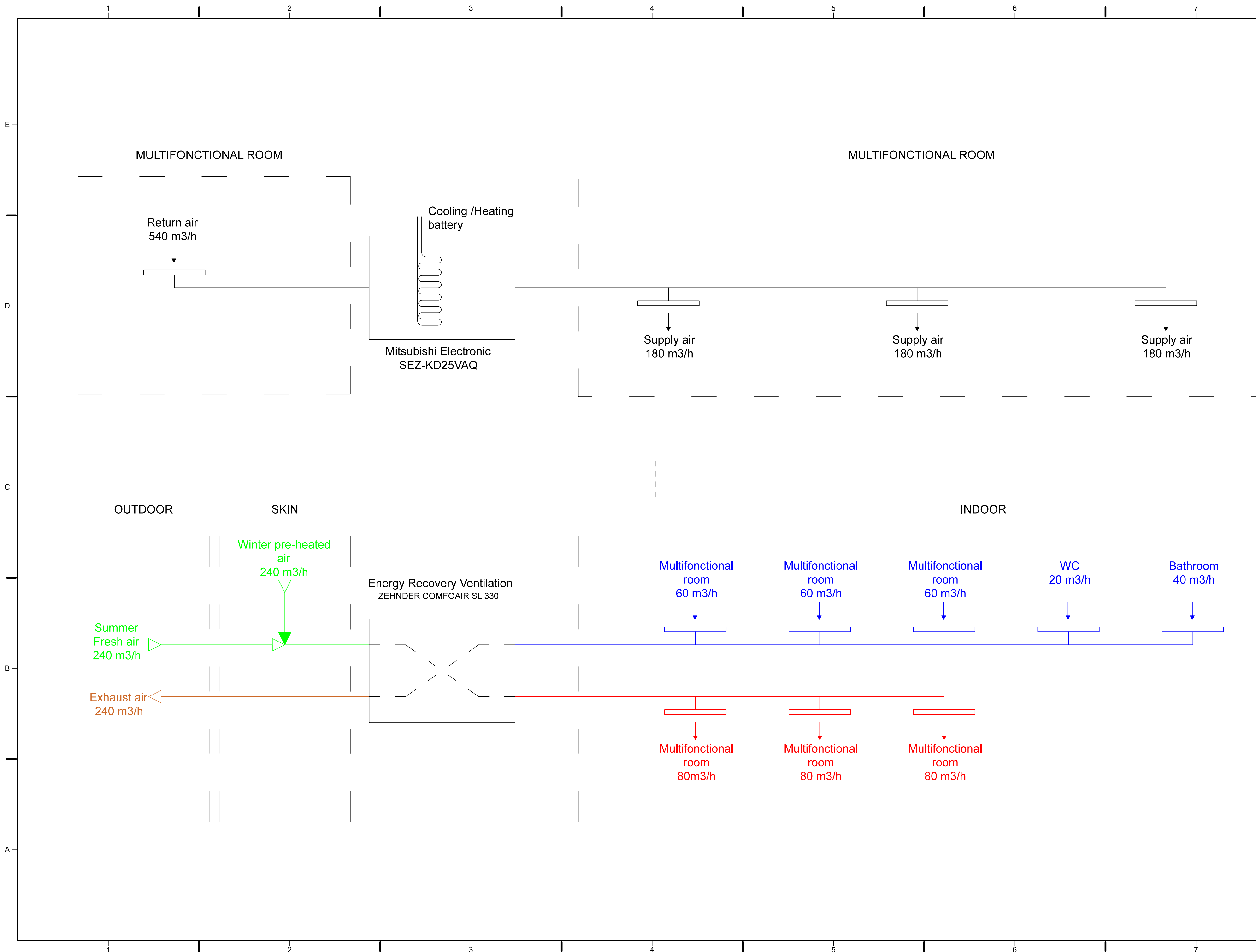
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01	2016-11-06	DELIVERABLE04

Plans are drawn with metric system (cm)

DRAWN BY: PELTIER scale: NO

HVAC RISER DIAGRAM

M-601



Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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DRAWN BY: PELTIER scale: NO

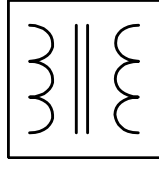
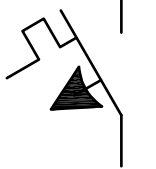
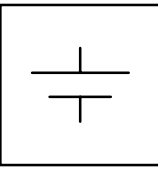
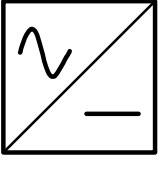
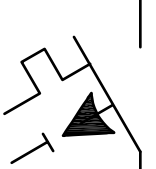
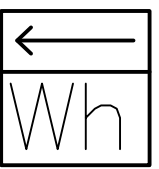
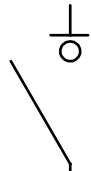
MECHANICAL SCHEDULE

M-801

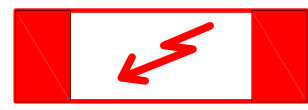


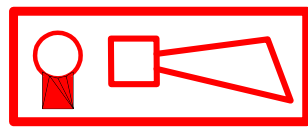
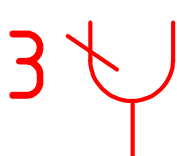


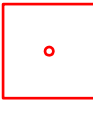


MECHANICAL EQUIPMENT SCHEDULE

DHW & HVAC MARK	MANUFACTURER	MODEL	DESCRIPTION	COUNT	URL
	HOVAL	CombiVal WPER 330	Thermodynamic hot water tank	1	http://www.hoval.fr/zoolu-website/media/document/8720/Dossier+technique+CombiVal+WPE+et+WPER+300.pdf
	ZEHNDER	ComfoAir SL 330 E	Ventilation Monobloc	1	https://www.zehnder-systems.ch/download/94437/fr_ch-13081.pdf
	mitsubishi	Mitsubishi SEZ-KD25VAQ SUZ_KA25V	Reversible air-conditioner	1	https://data2.manualslib.com/pdf/3/64/6357/635629-mitsubishi_electric/sezkd25.pdf?75f7120c3c4079fa1b83899fb2228c3&take=binary , https://www.manualslib.com/download/635629/Mitsubishi-Electric-Sez-Kd25.html

Single-line diagram symbols

	Transformer		Circuit breaker		Battery
	Inverter		Circuit breaker with differential protection		
	Electrical meter		Switch disconnect		

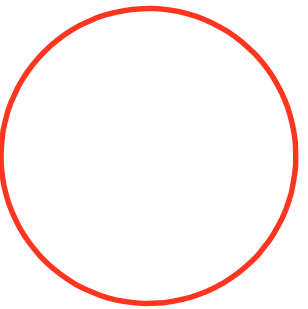
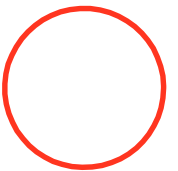









One-line diagram symbols

	Electrical board		Receptacle		Direct connection to the electrical board
	Fire detection board		Triple receptacle		Motor
	Climbing cable		Junction box		Optimizer *
	Fire detection sensor				

Notes

- Details about the circuit breakers are given in the electrical schedule.
 - Details about the light fixtures can be found in the datasheets.
- * refer to plan E-103

Lighting plan symbols

	SOLO SLIM LED SURFACE MOUNTED Ø 980 mm
	SOLO SLIM LED SURFACE MOUNTED Ø 530 mm
	ZENA LED RECESSED DIRECTIONAL SPOTLIGHT
	ZENA LED RECESSED DOWNLIGHT (GENERAL LIGHTING)
	ZENA LED RECESSED DOWNLIGHT (ACCENT LIGHTING)
	MATRIX LED TRACK SPOTLIGHT
	TRAQ LED BATTEN (BREIT) 1186 mm
	TRAQ LED BATTEN (BREIT) 595 mm
	TRAQ LED BATTEN (RAUMSTRAHLEND) 1481 mm
	MINA LED RECESSED DIRECTIONAL SPOTLIGHT
	FLOW LED SURFACE MOUNTED

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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Plans are drawn with metric system (cm)

DRAWN BY: GRUET scale: -

ELECTRICAL SYMBOLS AND NOTES

E-001

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TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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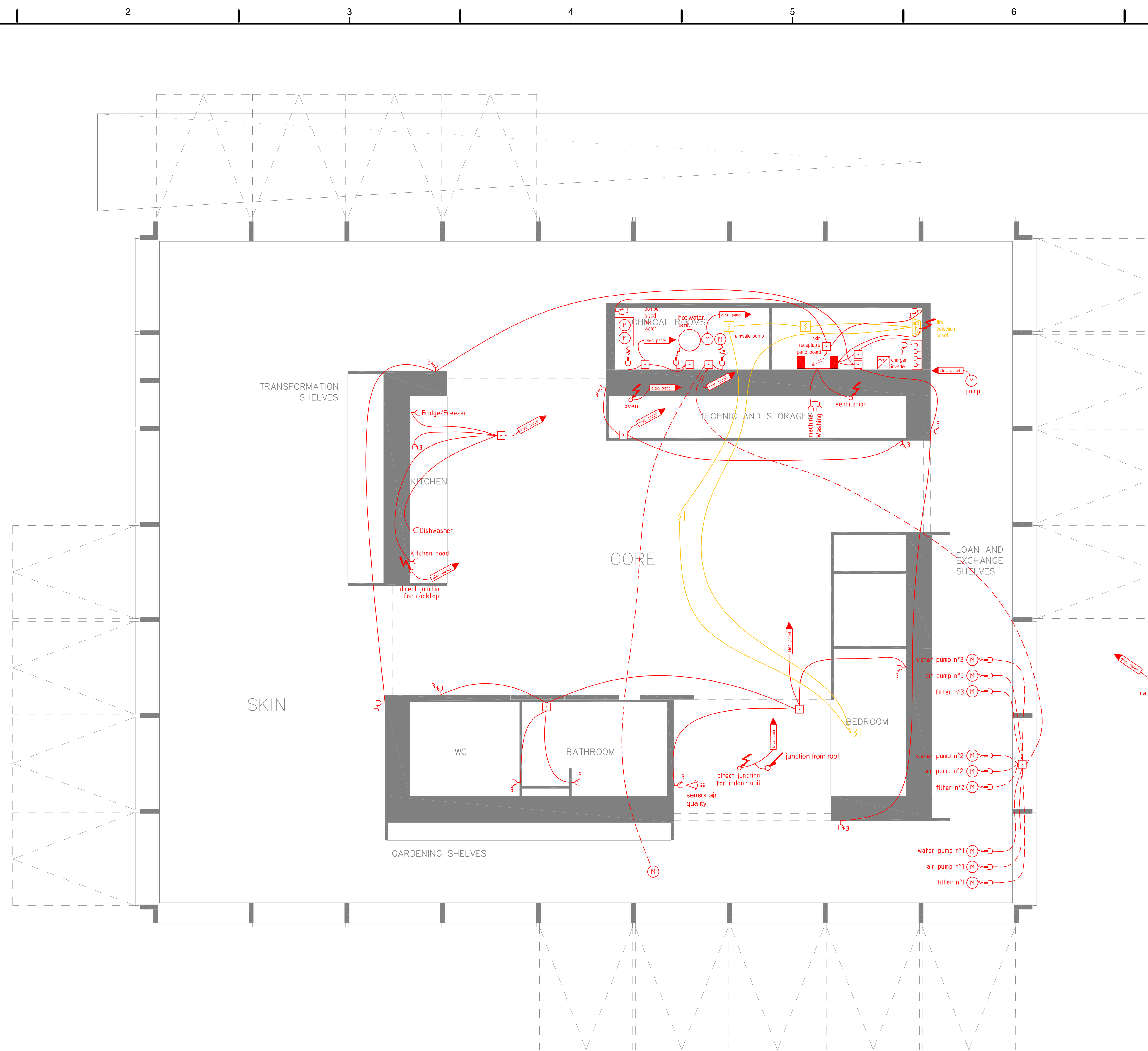
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01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

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FIRST FLOOR POWER PLAN

E-101



A2 FIRST FLOOR POWER PLAN

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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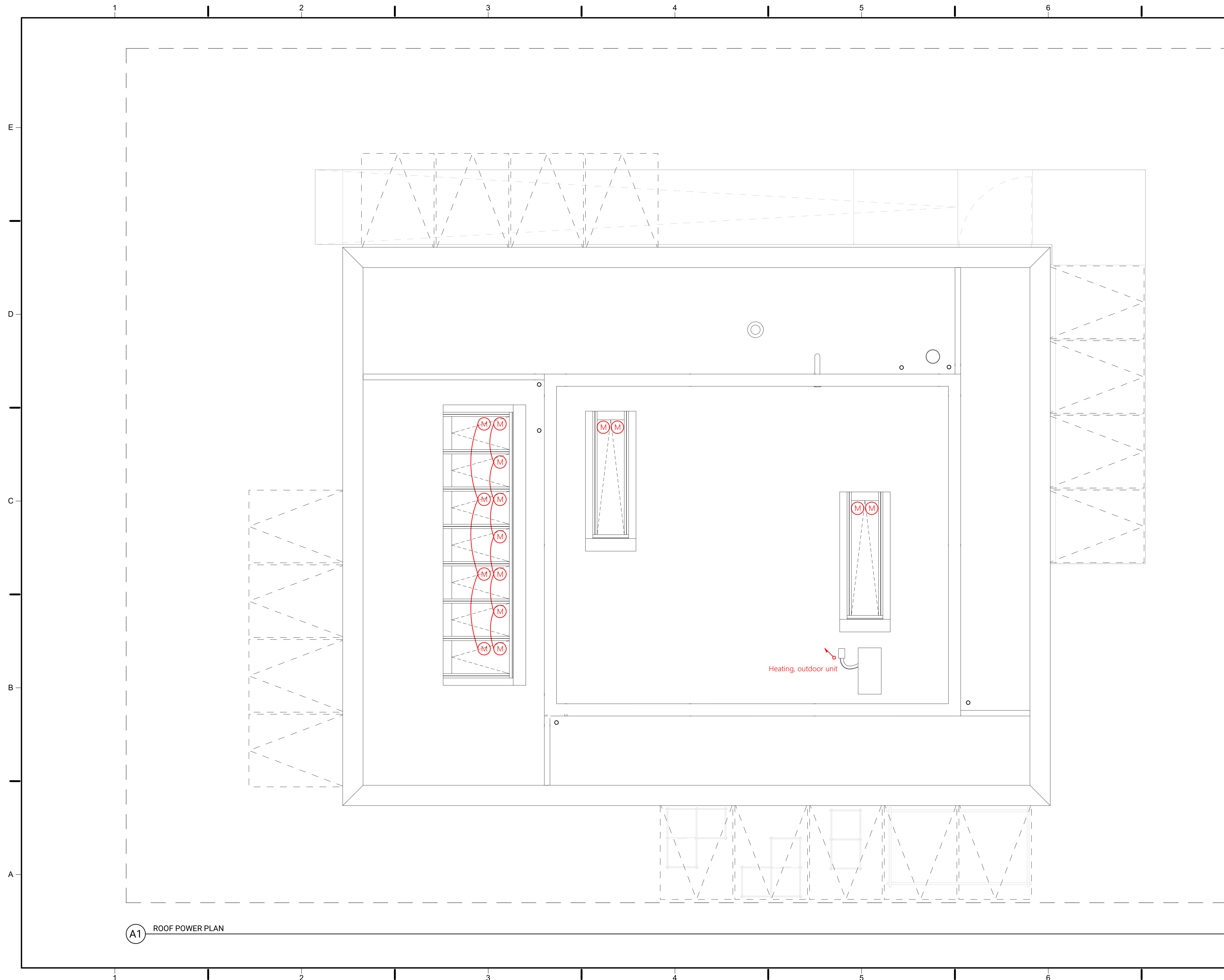
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: 1:40

ROOF POWER PLAN

E-102



A1 ROOF POWER PLAN

Swiss Living Challenge



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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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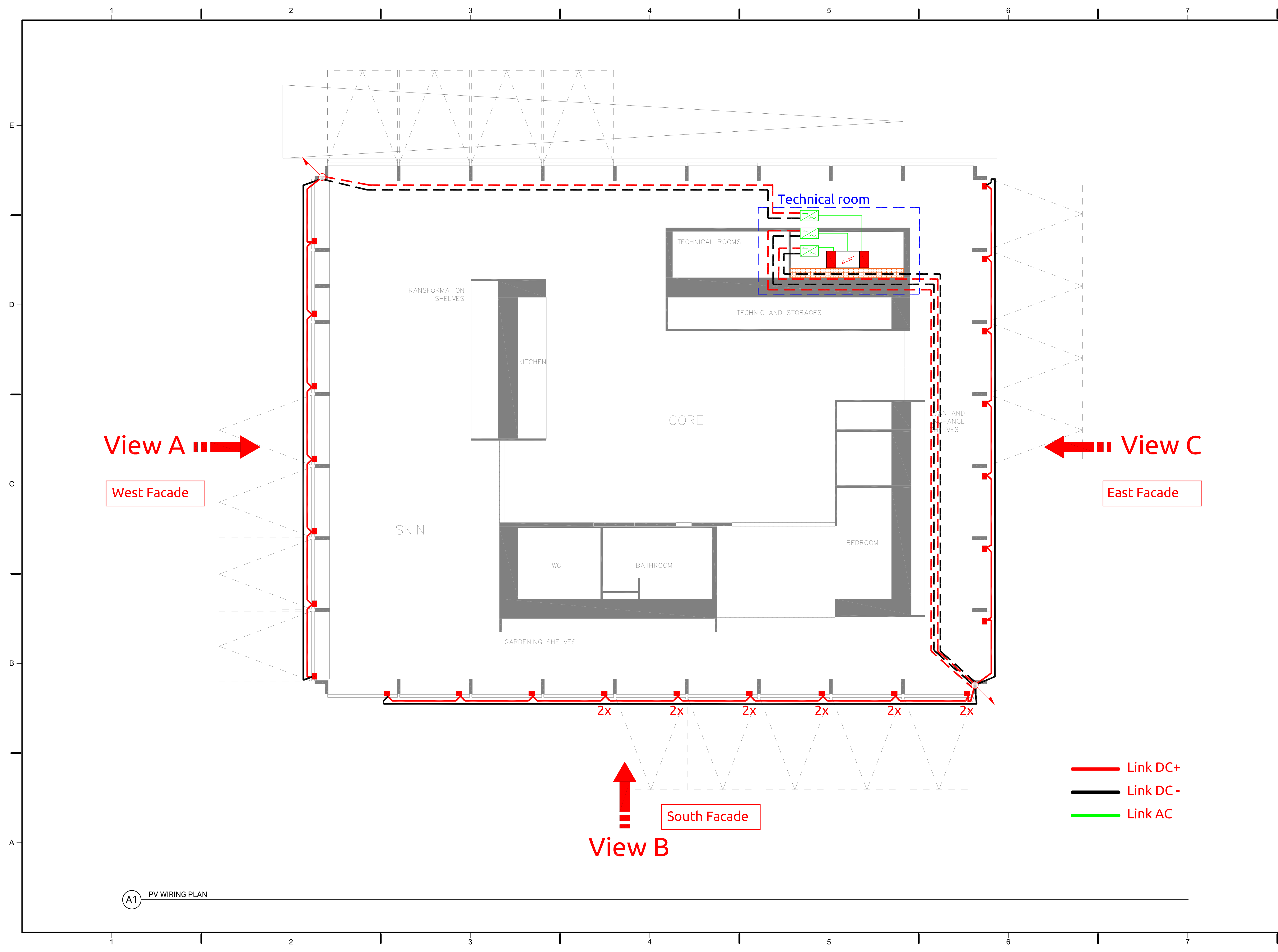
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Plans are drawn with metric system (cm)

DRAWN BY: SIMON scale: NO

PV WIRING PLAN

E-103



Swiss Living Challenge



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 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
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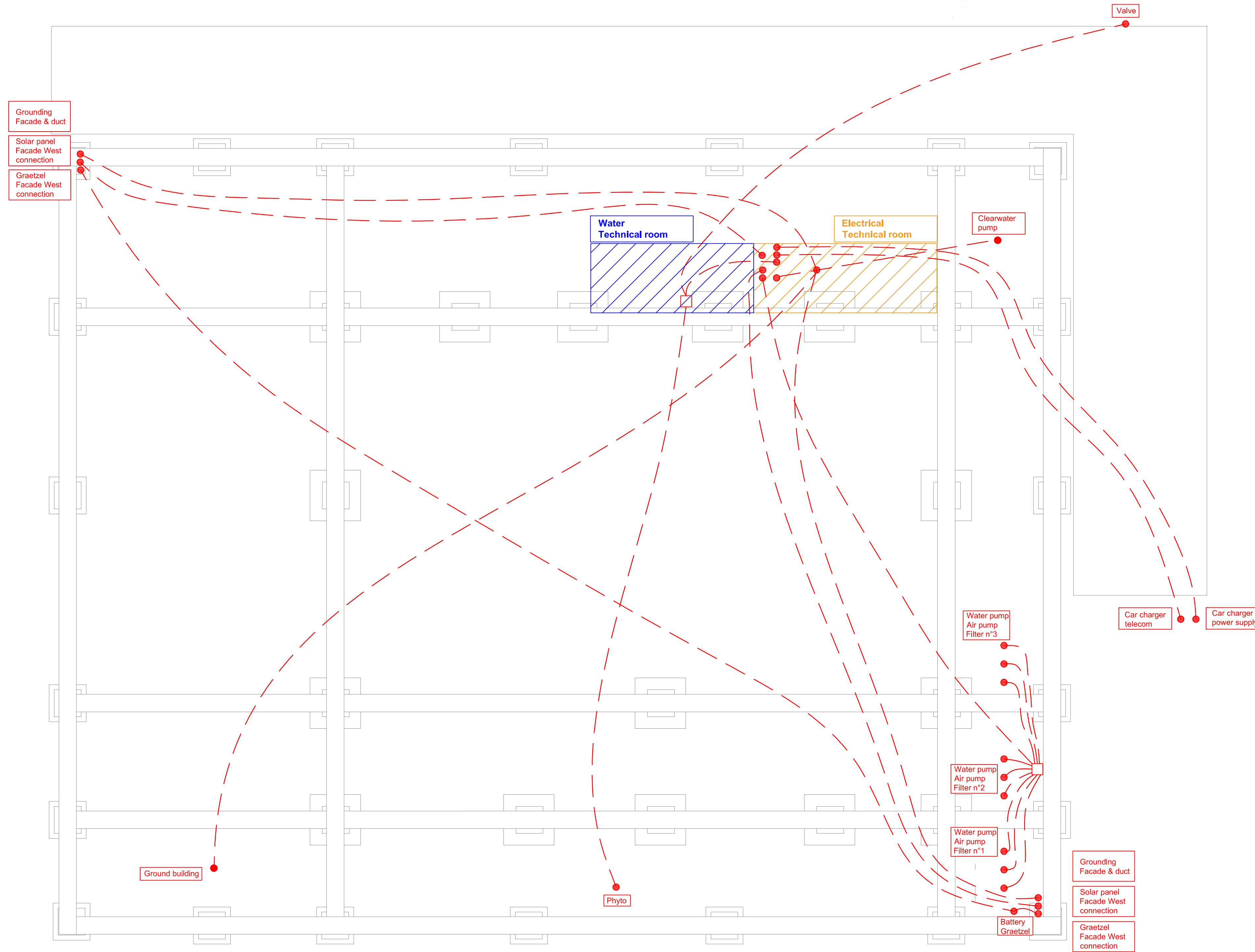
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DRAWN BY: SIMON scale: NO

GROUND LEVEL PLAN

E-104



(A1) GROUND LEVEL PLAN

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ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

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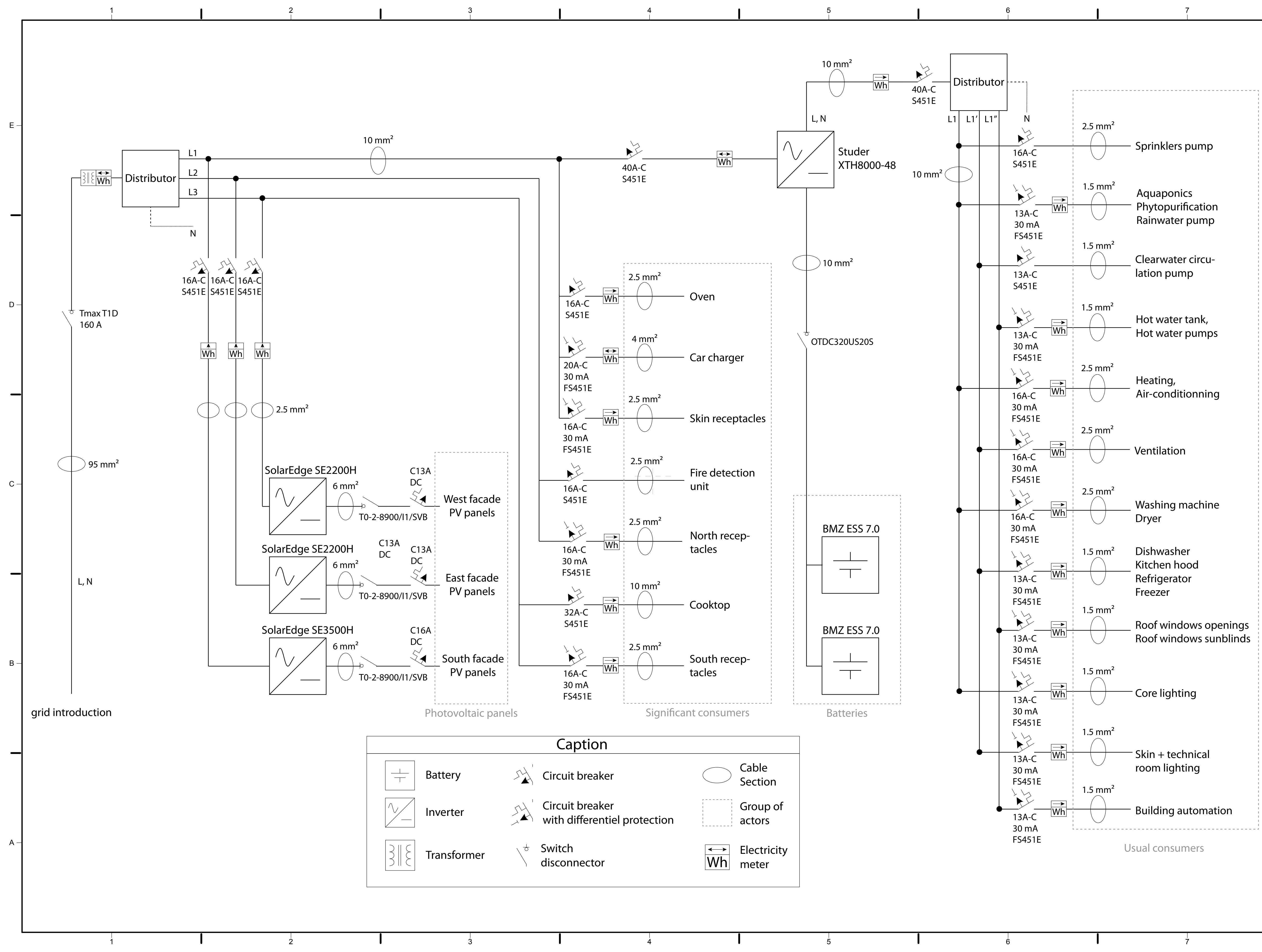
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Plans are drawn with metric system (cm)

DRAWN BY: GRUET scale: NO

SINGLE-LINE DIAGRAM

E-201



Caption

	Battery		Circuit breaker		Cable Section
	Inverter		Circuit breaker with differential protection		Group of actors
	Transformer		Switch disconnecter		Electricity meter

Swiss Living Challenge



TEAM NAME: SWISS TEAM

ADDRESS: smart living lab / SLC
Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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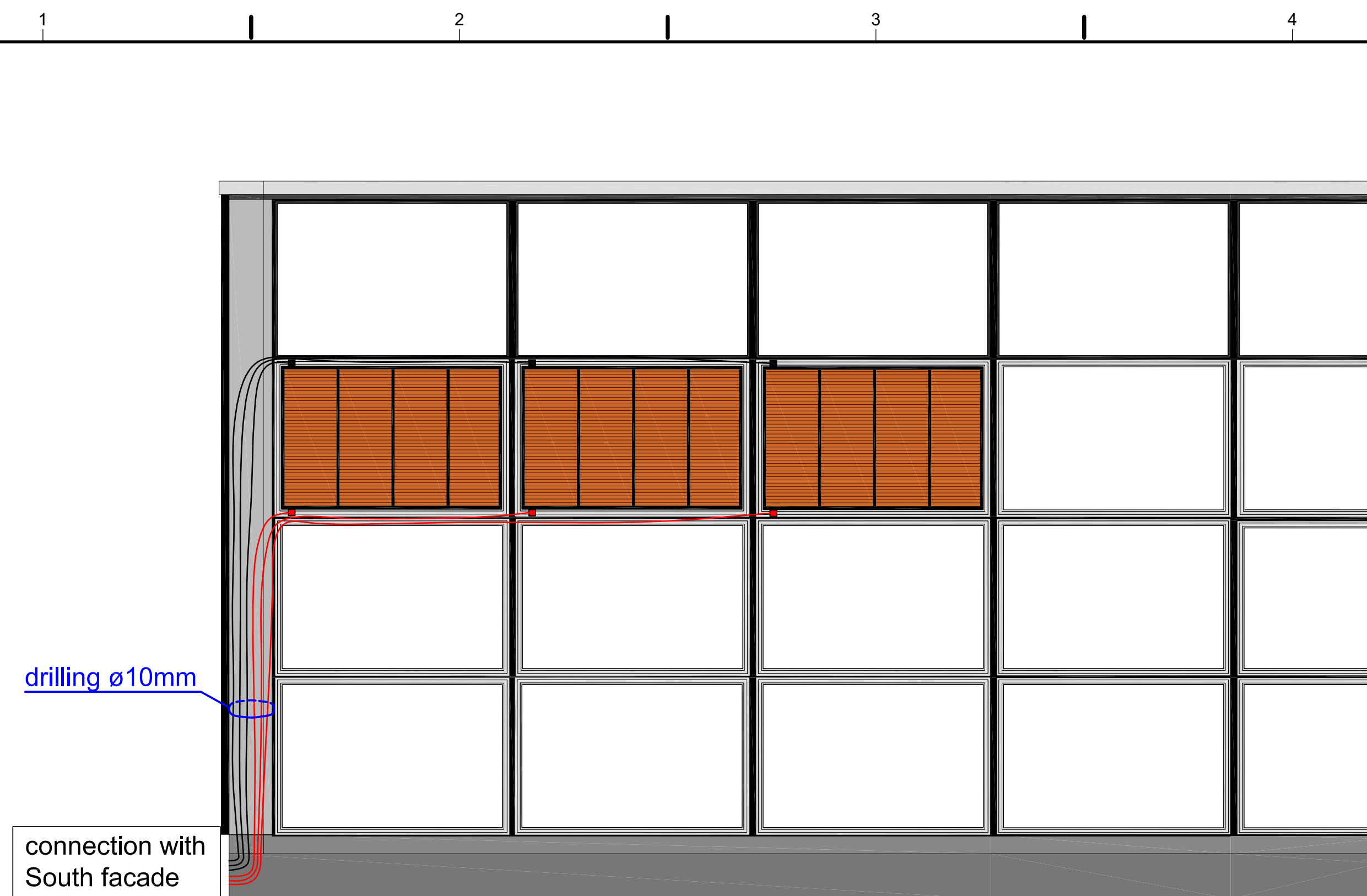
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02	2017-02-21	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

Plans are drawn with metric system (cm)

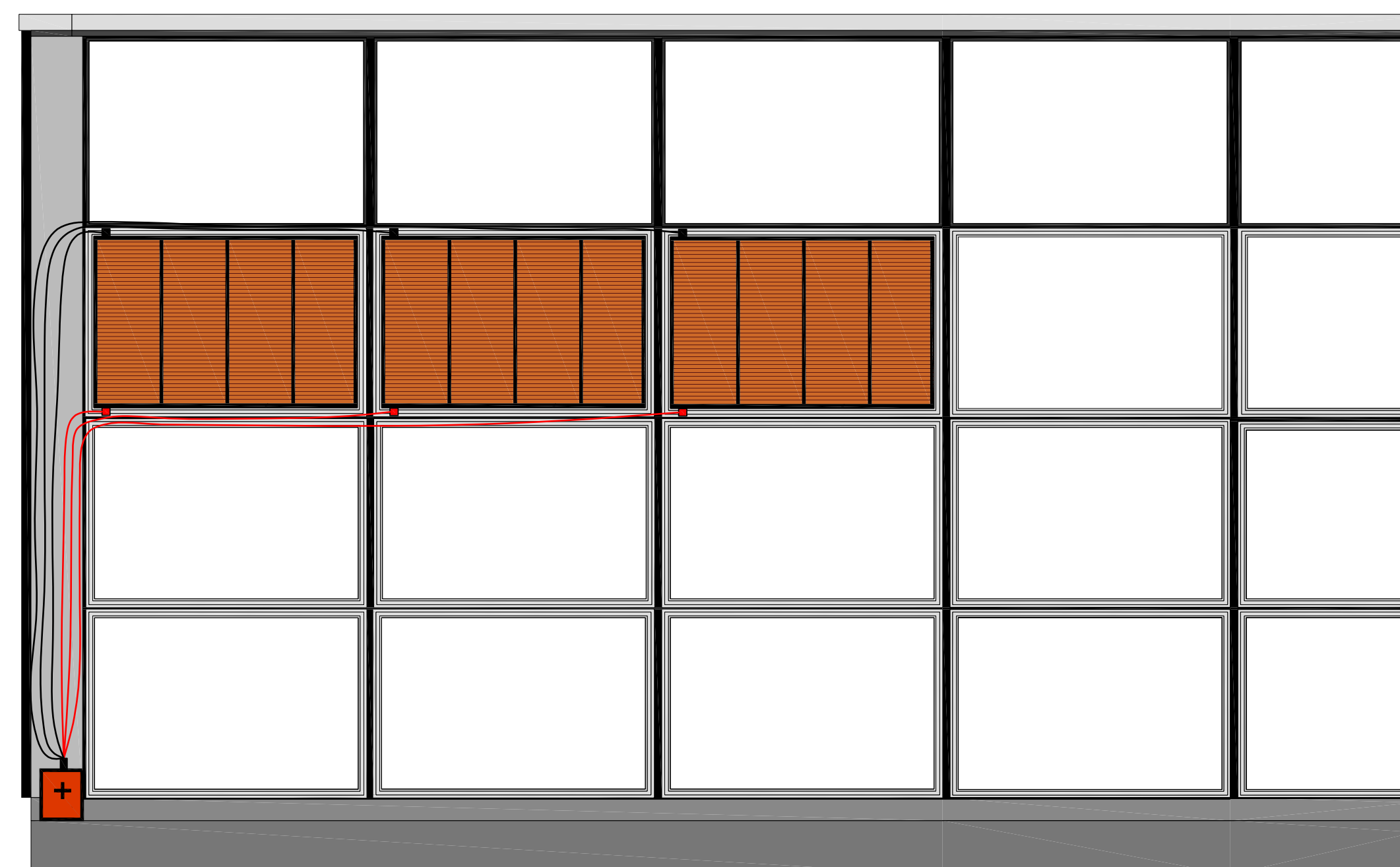
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GRAETZEL WIRING

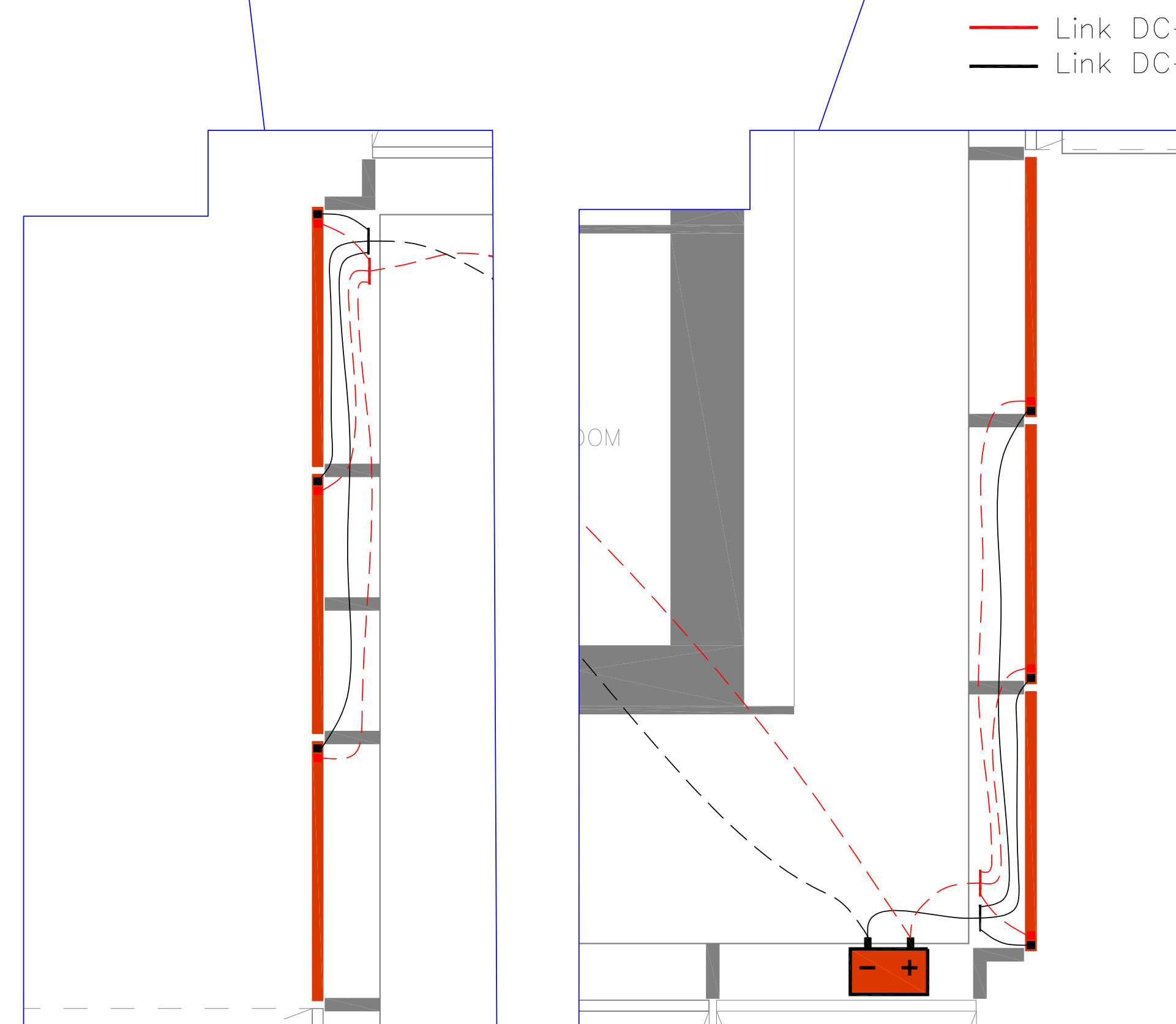
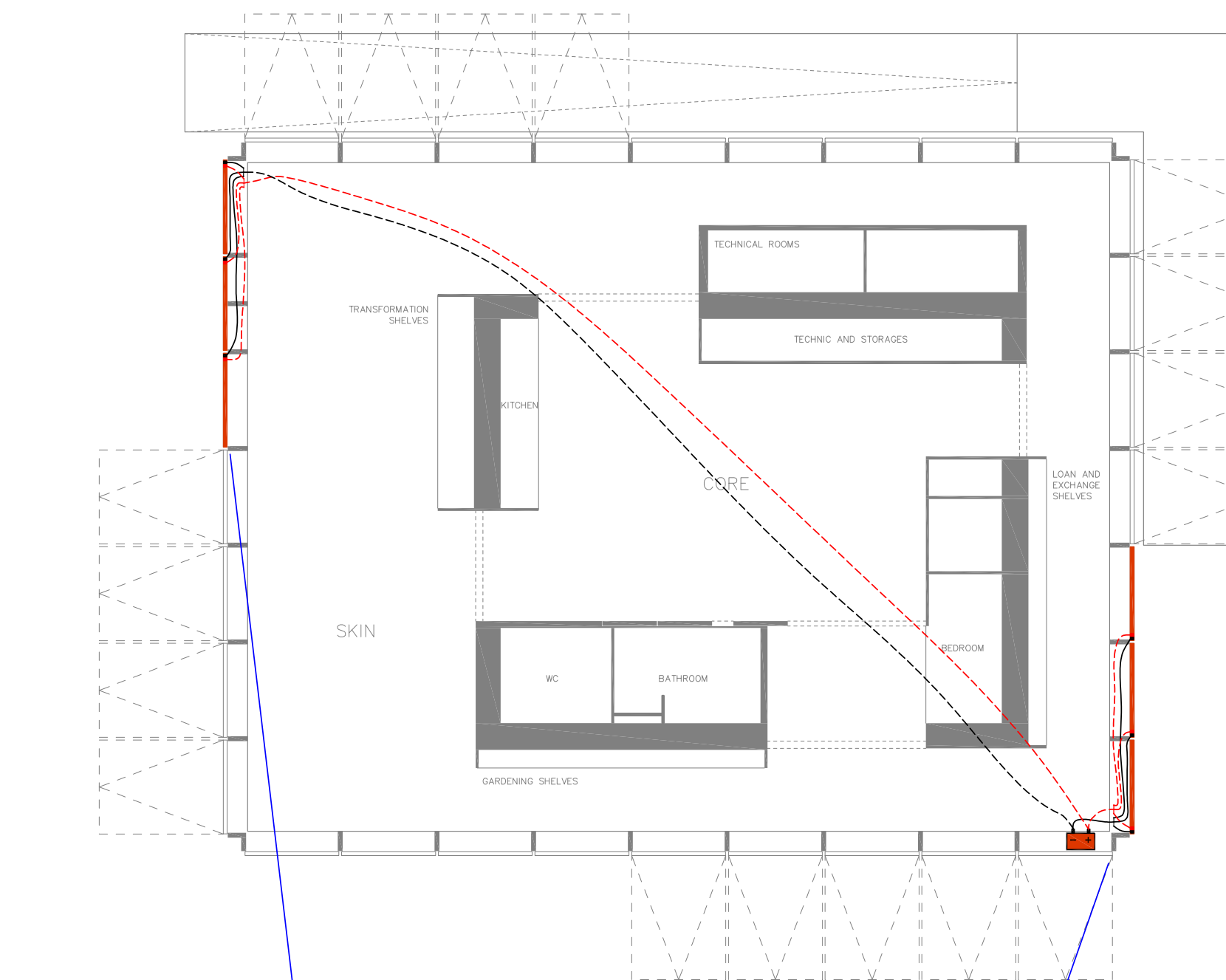
E-301



(A1) GRAETZEL WIRING - west elevation



(A1) GRAETZEL WIRING - east elevation



(A1) GRAETZEL WIRING - plan

— Link DC+
— Link DC-

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

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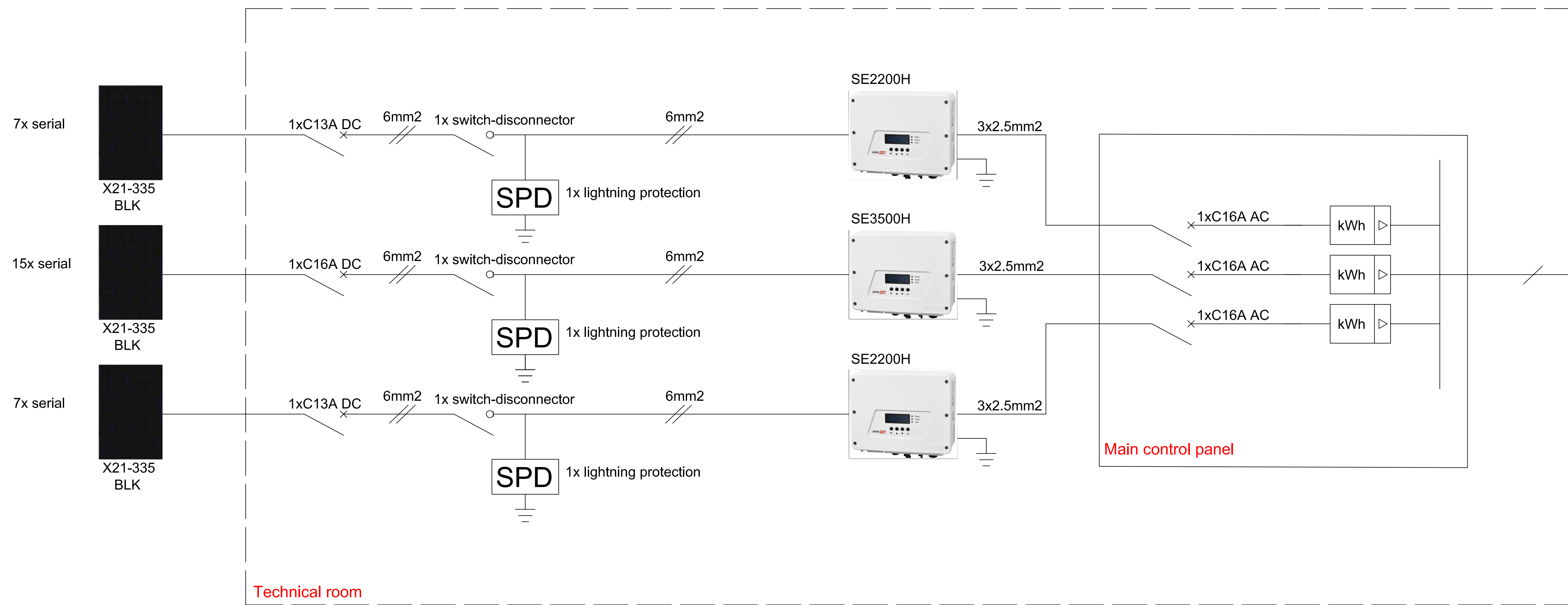
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JUNCTION DIAGRAM

E-302



A1 JUNCTION DIAGRAM

Swiss Living Challenge



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 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
 http://www.swiss-living-challenge.ch

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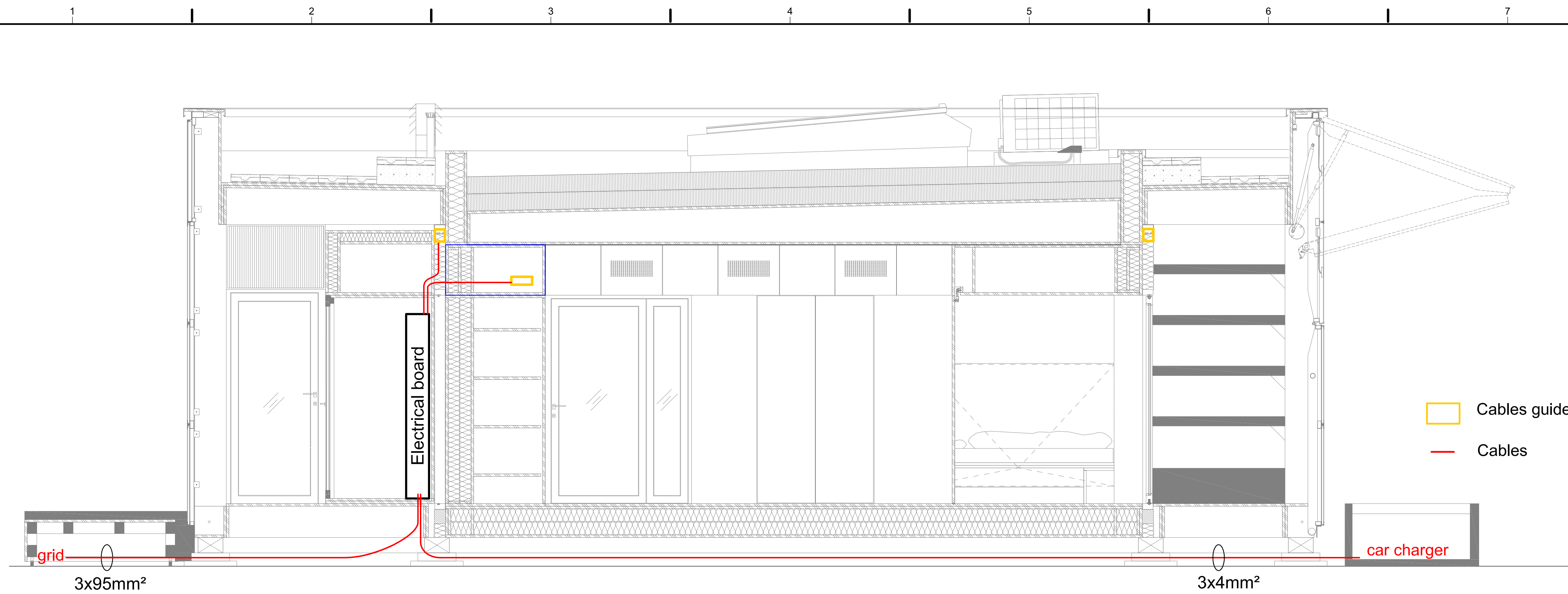
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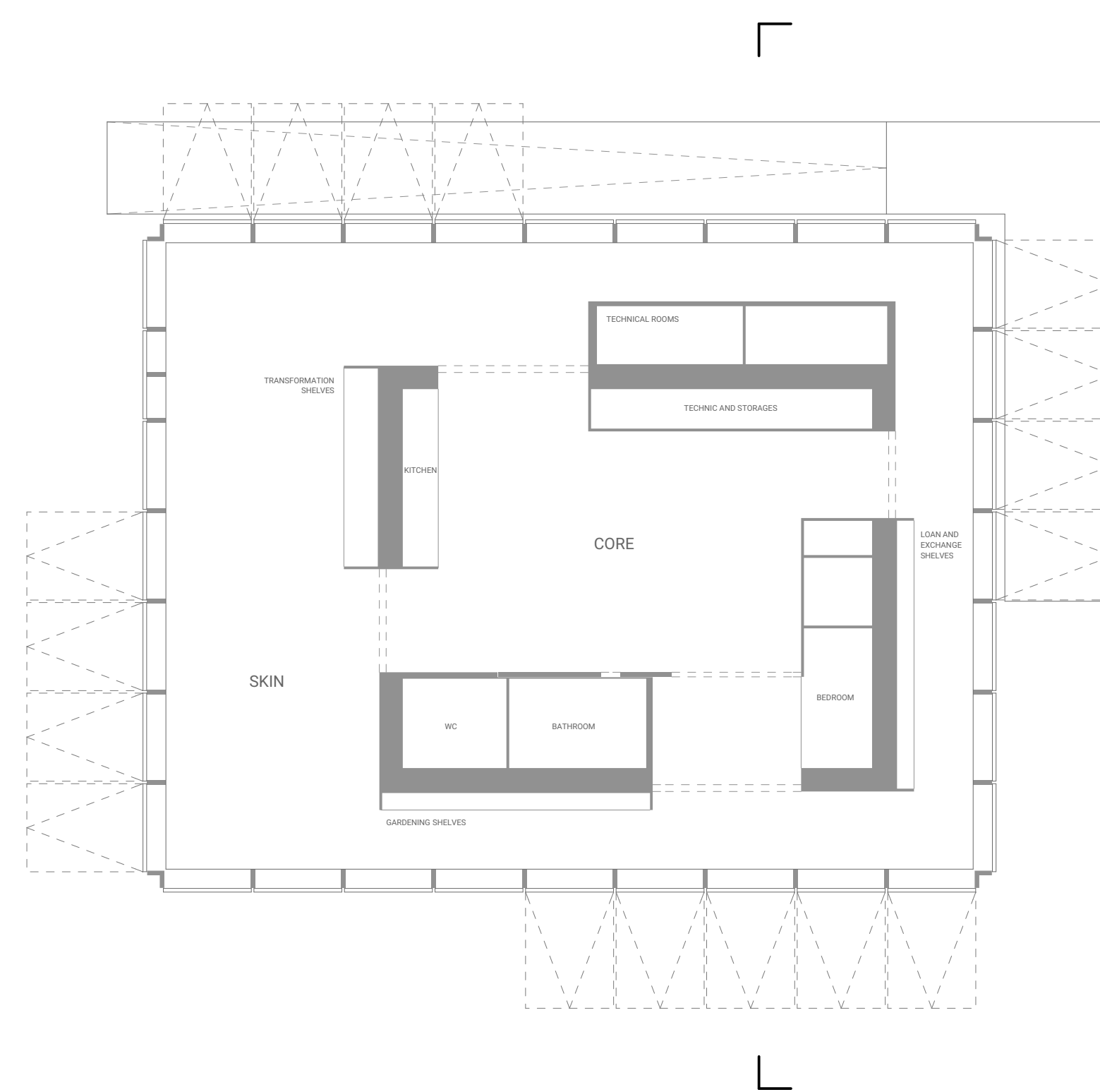
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ELECTRICAL SECTIONS

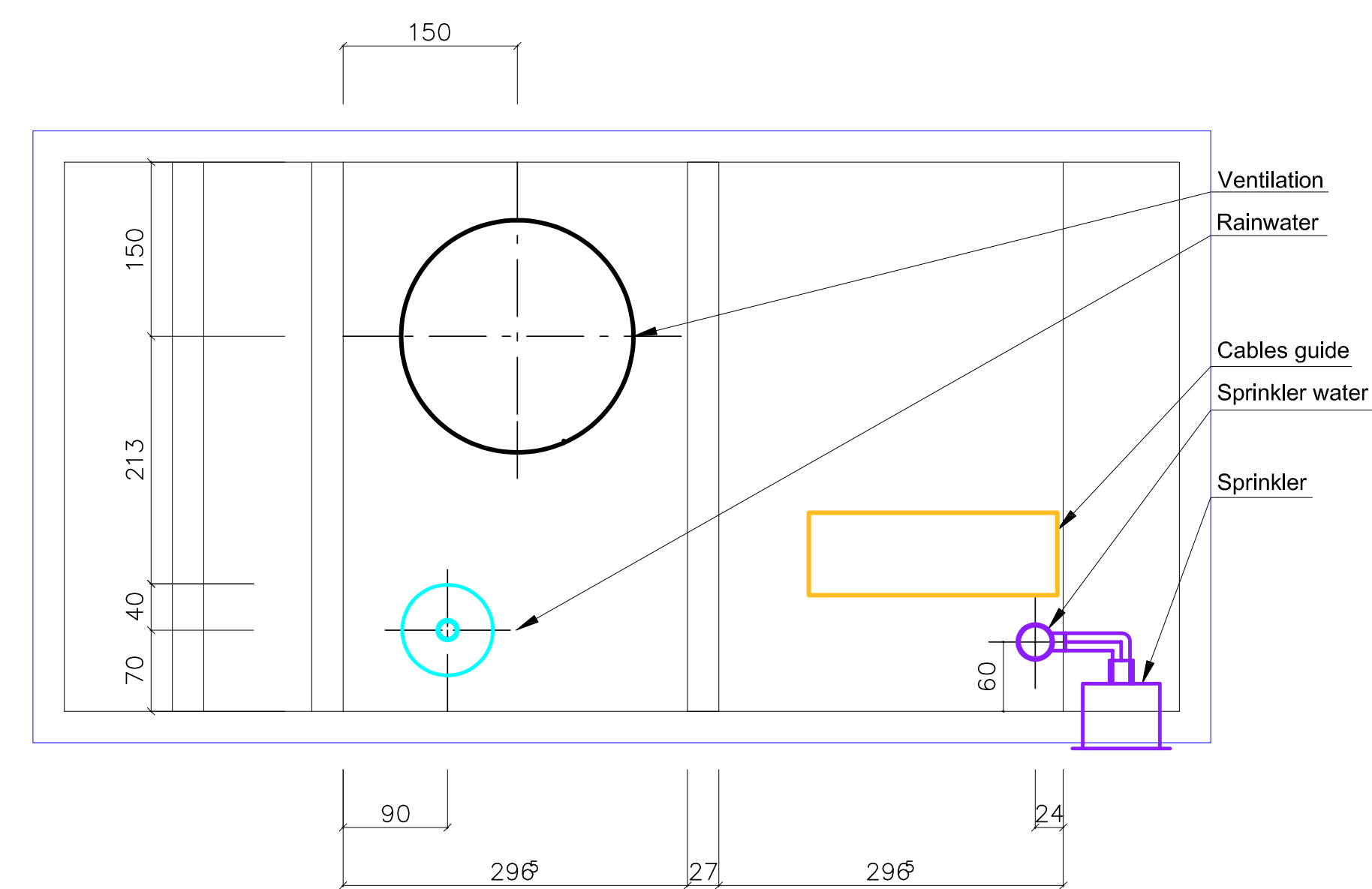
E-401



C1 ELECTRICAL JUNCTIONS - building section



A1 ELECTRICAL JUNCTIONS - section plan



A5 ELECTRICAL JUNCTIONS - technical ring section

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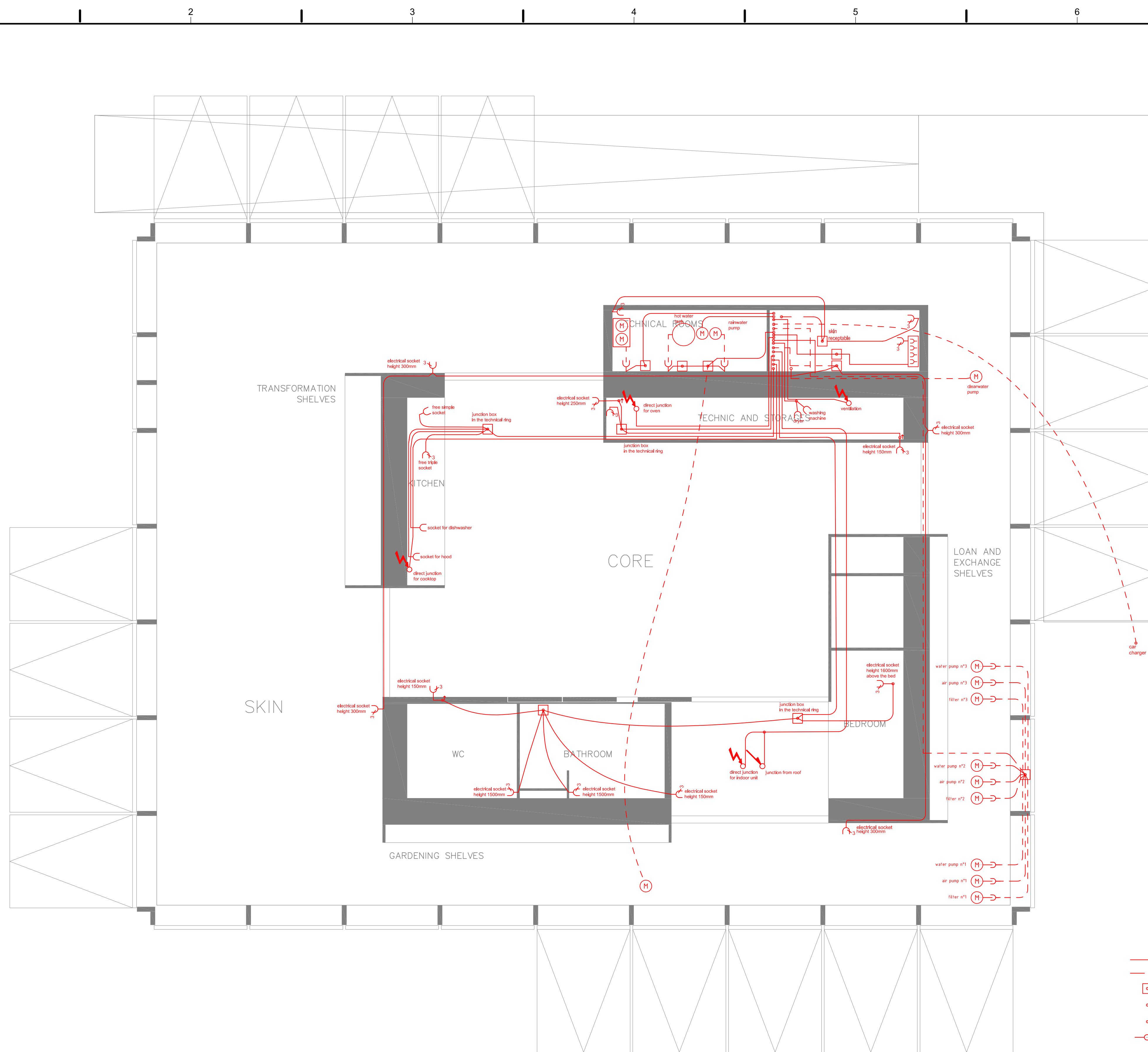
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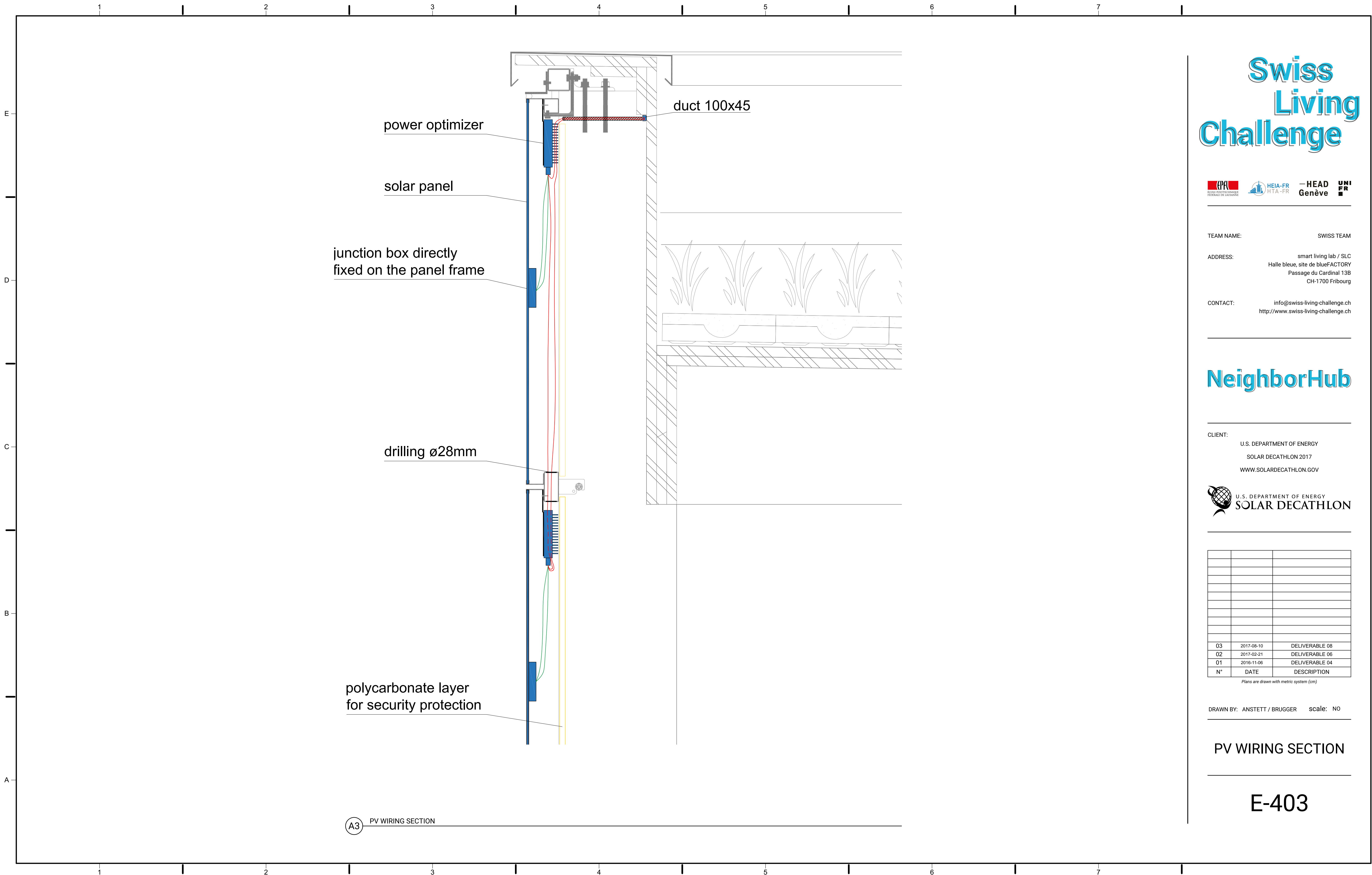
DRAWN BY: GRUET / BRUGGER scale: NO

FIRST FLOOR ELECTRICAL DISTRIBUTION

E-402



A1 FIRST FLOOR ELECTRICAL DISTRIBUTION



(A3) PV WIRING SECTION

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TEAM NAME: SWISS TEAM
 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
 http://www.swiss-living-challenge.ch

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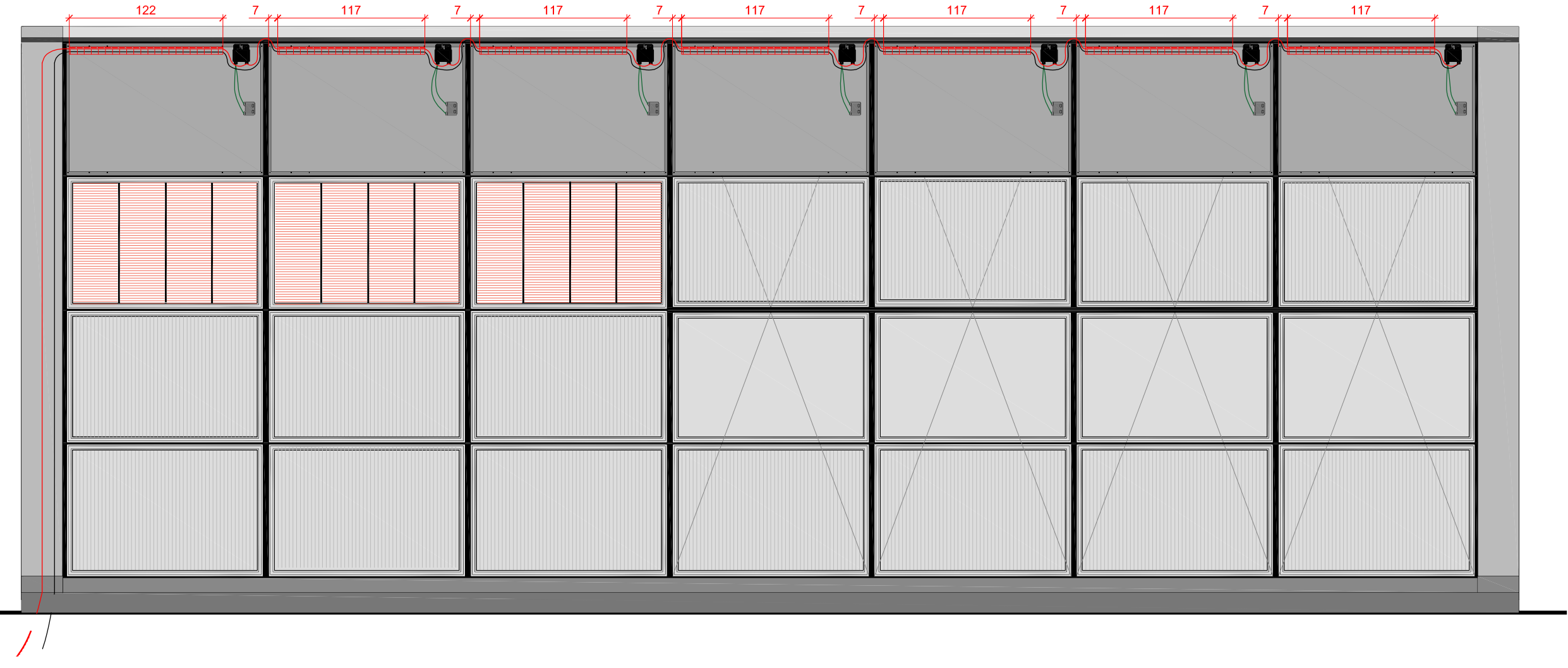
Plans are drawn with metric system (cm)

DRAWN BY: ANSTETT / BRUGGER scale: NO

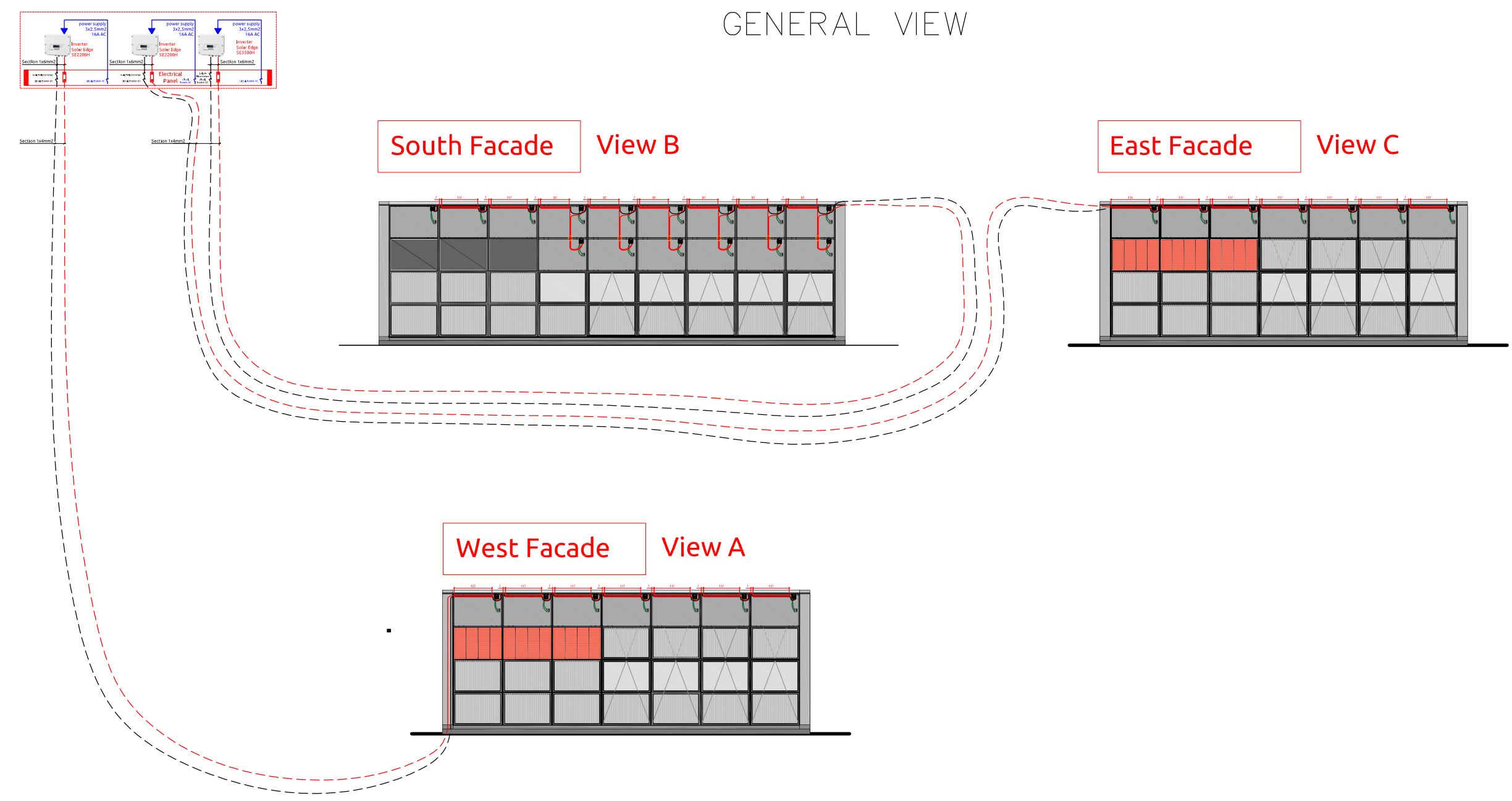
PV WIRING SECTION

E-403

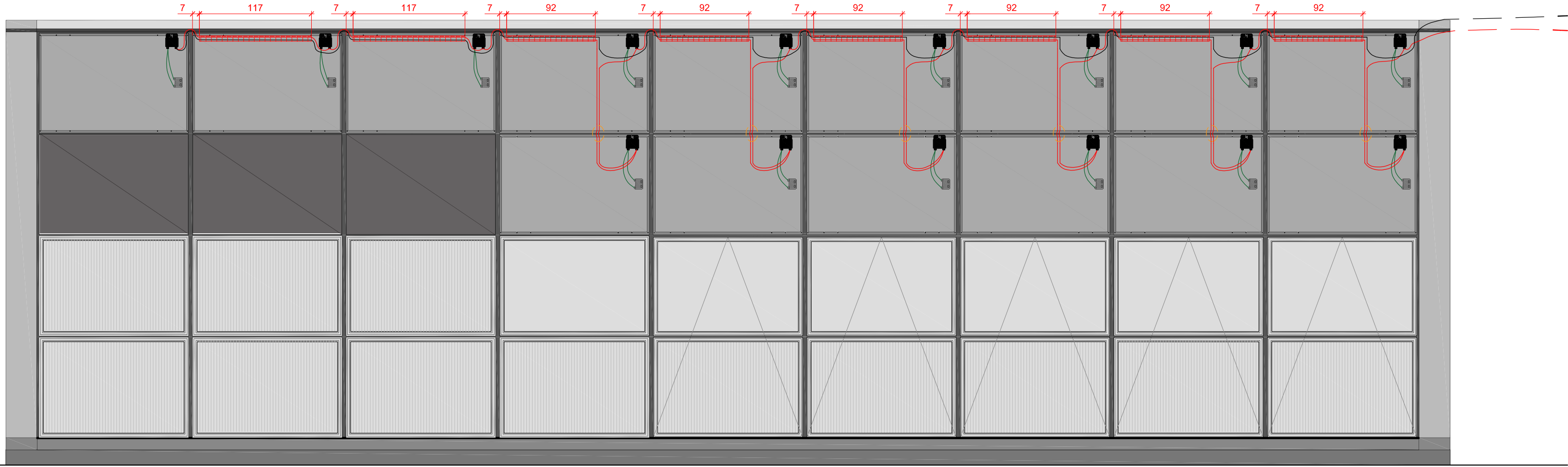
WEST FACADE– View A



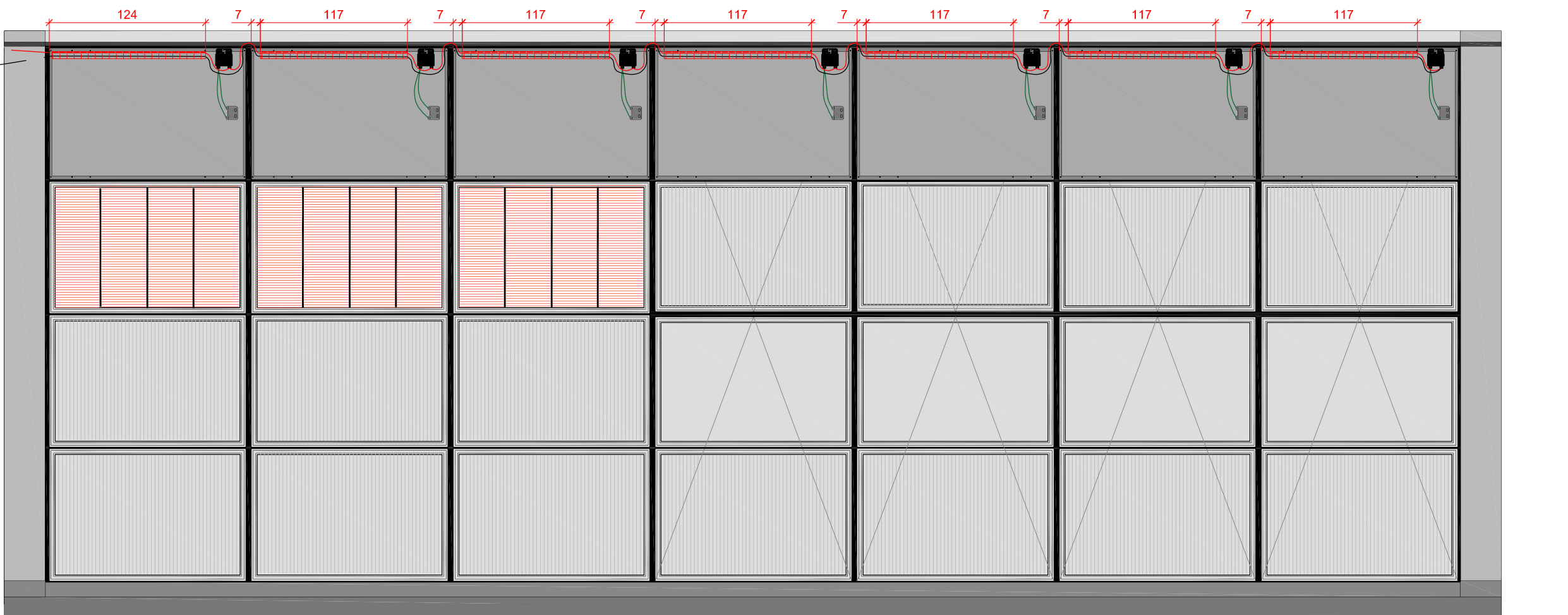
GENERAL VIEW

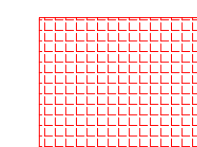

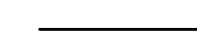


SOUTH FACADE– View B

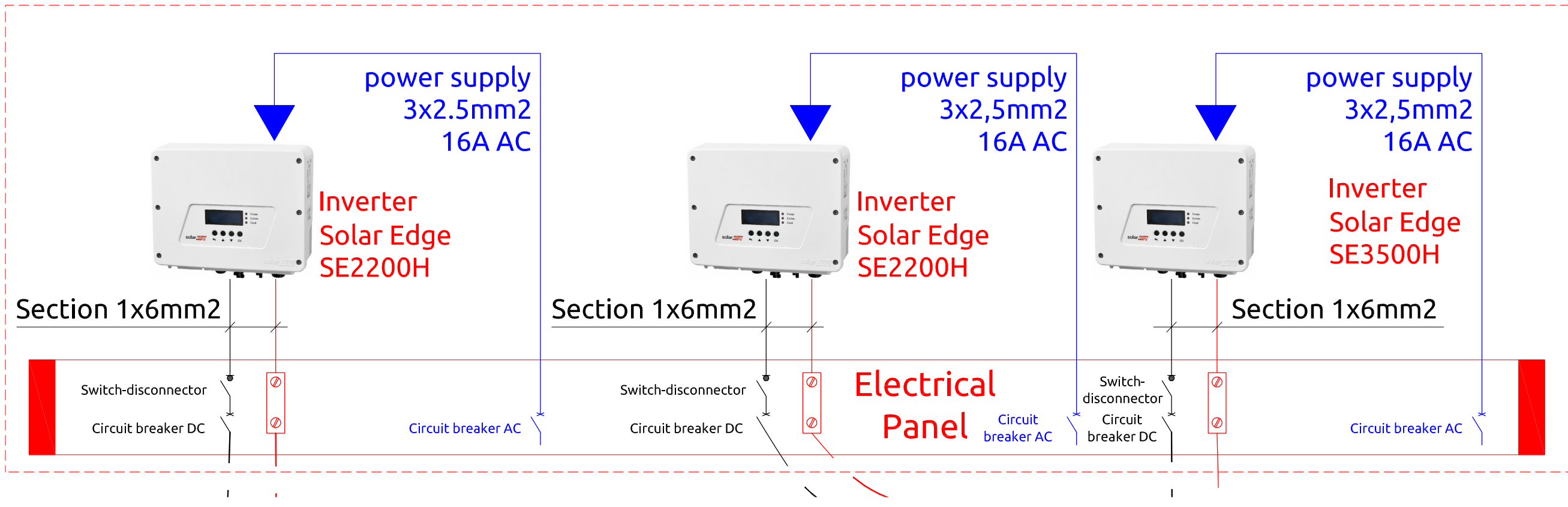


EAST FACADE– View C



 Duct PVC tehalit 100x45
 N° Eldas: 127302942
 Link DC+
 Link DC-

TECHNICAL ROOM



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TEAM NAME: SWISS TEAM
 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
 http://www.swiss-living-challenge.ch

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PV WIRING ELEVATION

E-404

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 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
 CONTACT: info@swiss-living-challenge.ch
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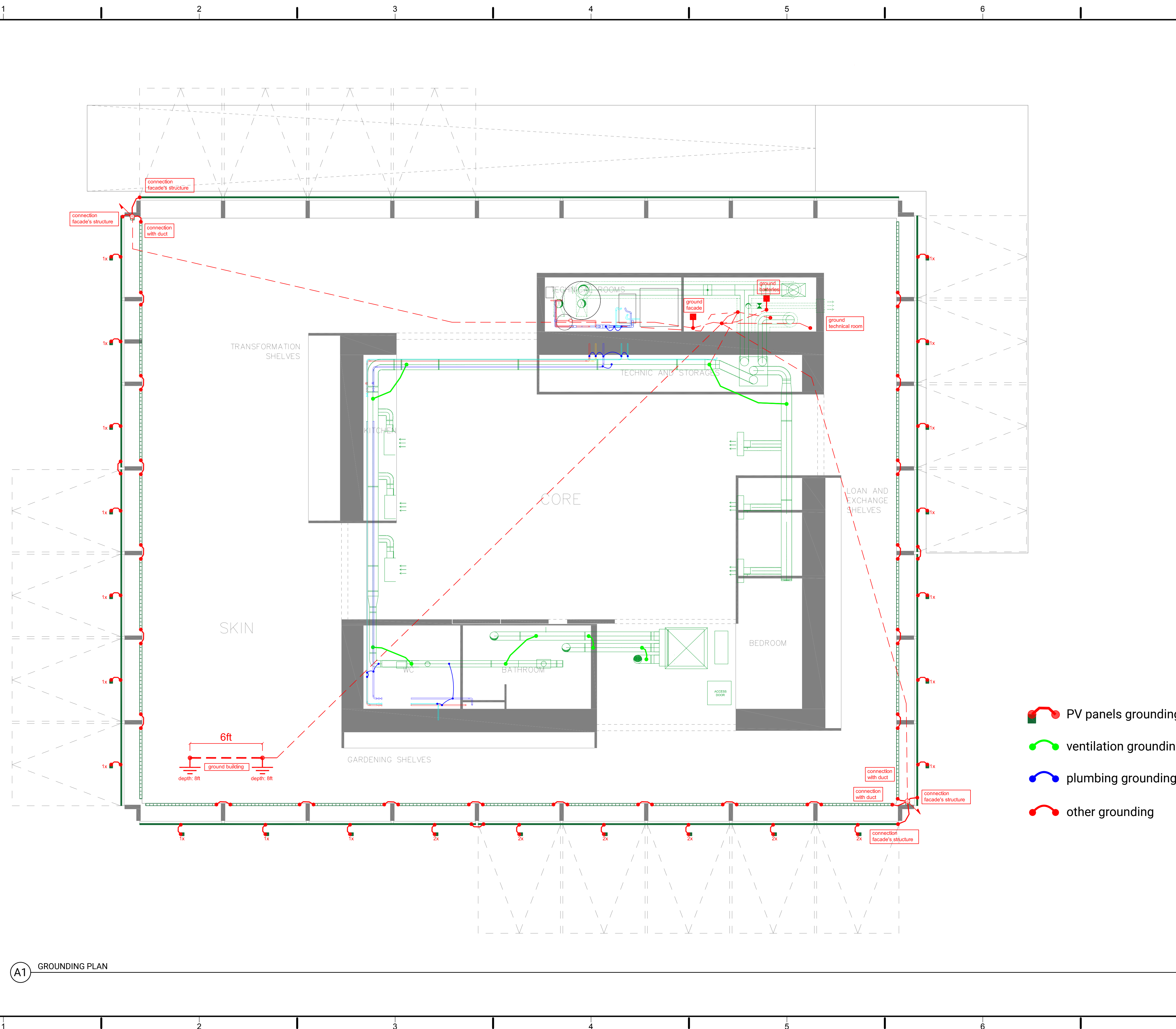
N°	DATE	DESCRIPTION
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02	2017-02-21	DELIVERABLE 06
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Plans are drawn with metric system (cm)

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GROUNDING PLAN

E-405



- PV panels grounding
- ventilation grounding
- plumbing grounding
- other grounding

A1 GROUNDING PLAN

ELECTRICAL SCHEDULE			
DESCRIPTION	MANUFACTURER	MODEL	QTY
ELECTRICAL PRODUCTION			
Single phase inverter	Solar edge	SE2200H	2
Single phase inverter	Solar edge	SE3500H	1
Power optimizer	Solar edge	P404-5R M4M RM	29
Photovoltaic panel	Sunpower	SPR-X21-335-BLK, AR-S1 M3 YUK (335Wp) - Black	29
Semi-transparent DSC glass module	H.glass	W50 red	6
ELECTRICAL STORAGE			
Charger Inverter	Studer Innotec	XTH 8000-48	1
Central storage, Li-Ion batteries	BMZ	ESS 3.0/7.0	2
Battery for Graetzel independant syst.	Victron Energy	LPF-BMS 12,8/90	1
Battery backup for fire protection	Ultracell (UK) Ltd.	UL7-12	2
ELECTRICAL PROTECTION			
Main section switch	ABB	Tmax T1D 160A	1
Circuit breaker 13A with DDR	ABB	FS451E-C13/0,03	7
Circuit breaker 16A with DDR	ABB	FS451E-C16/0,03	6
Circuit breaker 16A without DDR	ABB	S451E-C16	9
Circuit breaker 20A with DDR	ABB	FS451E-C20/0,03	1
Circuit breaker 40A without DDR	ABB	S451E-C40	2
Neutral disconnecter	ABB	NT45163	7
Batteries disconnect switch	ABB	OTDC320US20S	1
Breaker DC 1*13A	ABB	C13A S452M-UCC13	2
Breaker DC 1*16A	ABB	C16A S452M-UCC16	1
Photovoltaic panel disconnect switch	Eaton	T0-2-8900/I1/SVB	3
Lightning protection for PV panels	Aflury	GAK 111 PG	3
ELECTRICAL METERING			
Bidirectionnal electrical meter	ABB	B21 Bronze	2
Monodirectionnal electrical meter	ABB	B21 Steel	19
Bidirectionnal electrical meter 100A	ABB	A42 BRONZE	1
Current transformer (100 A ; 5 A)	ABB	CM-CT 100/5	1
APPLIANCES			
Combined Frige and Freezer	Miele	KF 37122 iD	1
Clothes dryer	V-Zug	Adora TSLQ WP	1
Clothes washer	V-Zug	Adora SLQ WP	1
Dishwasher	V-Zug	Adora SL WP	1
Induction cooktop	V-Zug	GK37TIMS	1
Kitchen exhaust fan	V-Zug	DW E	1
Oven	V-Zug	Combair SLP	1
HOME ENTERTAINMENT			
Beamer Panasonic	Panasonic	PT-AE8000U	1
Computer	Why !	W253EU SSD	1
ELECTRICAL MOBILITY			
Car charger	Keba	KeContact K20	1
Electrical car	Nissan	Nissan LEAF	1

Swiss Living Challenge



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
http://www.swiss-living-challenge.ch

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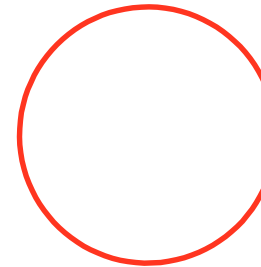
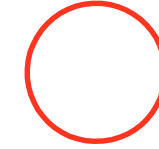










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02	2017-02-19	DELIVERABLE 06
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Plans are drawn with metric system (cm)

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ELECTRICAL SCHEDULE

E-801

Lighting schedule							
Symbol	Description	Wattage	#	Total	Numbering	References	URL
	SOLO SLIM LED SURFACE MOUNTED Ø 980 mm	100W	2	200W	01	1021.2775 114RAW.9.01	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__solo_slim_led_US/#
	SOLO SLIM LED SURFACE MOUNTED Ø 530 mm	33W	2	66W	02	1021.7126 114W175L2BYC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__solo_slim_led_US/#
	ZENA LED RECESSED DIRECTIONAL SPOTLIGHT	14W	7	98W	03	1001.6720 3212W.F10DC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__zena_led_US/#
	ZENA LED RECESSED DOWNLIGHT (GENERAL LIGHTING)	14W	8	112W	04	1001.6732 3213W.F10DC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__zena_led_US/#
	ZENA LED RECESSED DOWNLIGHT (ACCENT LIGHTING)	14W	2	28W	05	1001.6756 3215W.F10DC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__zena_led_US/#
	MATRIX LED TRACK SPOTLIGHT	22W	4	88W	06	1002.9604 56W5F32D8C03	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__matrix_led_US/#
	TRAQ LED BATTEN (BREIT) 1186 mm	23W	10	230W	07	1002.6679 456WS4B.2DC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__traq_breit_ba23_US/#
	TRAQ LED BATTEN (BREIT) 595 mm	11W	10	110W	08	1002.6647 456WS2B.2DC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__traq_breit_ba23_US/#
	TRAQ LED BATTEN (RAUMSTRAHLEND) 1481 mm	29W	3	87W	09	1002.6812 456WS5L.2DC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__traq_raumstrahlend_c7e1_US/#
	MINA LED RECESSED DIRECTIONAL SPOTLIGHT	14W	1	14W	10	1001.6820 3220W.F10BC	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__mina_led_US/#
	FLOW LED SURFACE MOUNTED	32W	1	32W	11	1005.8501 84W01L2420DA0	https://reluxnet.relux.com/en/search/luminaires/regent/rgn__flow_led_US/#
	NORTH FACADE INTEGRATED LUMINAIRE	12W/m	26m	312W	12		
Subtotal				1377W			

Swiss Living Challenge



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Passage du Cardinal 13B
CH-1700 Fribourg

CONTACT: info@swiss-living-challenge.ch
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01	2016-11-06	DELIVERABLE04
N°	DATE	DESCRIPTION

Plans are drawn with metric system (cm)

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LIGHTING SCHEDULE

E-802

Public

- Electrical car battery
- Rainwater Storage

- Public Grid
- Photovoltaic
- House Battery
- Electrical Management
- Heating / Cooling
- Hot water management

Private

- Shadowing
- Natural Ventilation
- Appliances
- Oven & Cook
- Artificial Light

- Electrical Car Battery
- Rainwater Storage

Automatic

Semi-Automatic

Manual



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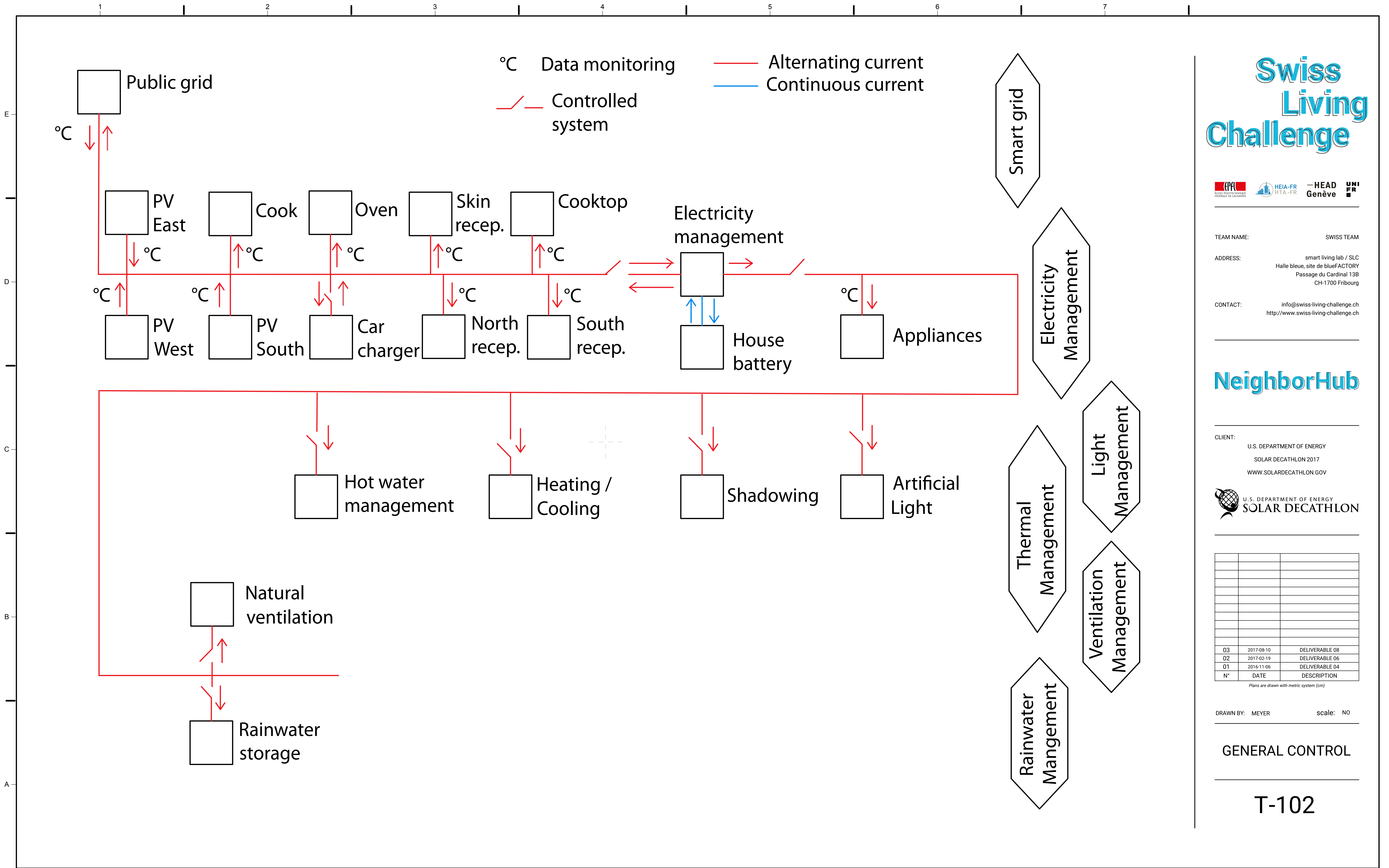


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AUTOMATION MANAGEMENT

T-101



Swiss Living Challenge



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 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
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DRAWN BY: MEYER scale: NO

GENERAL CONTROL

T-102

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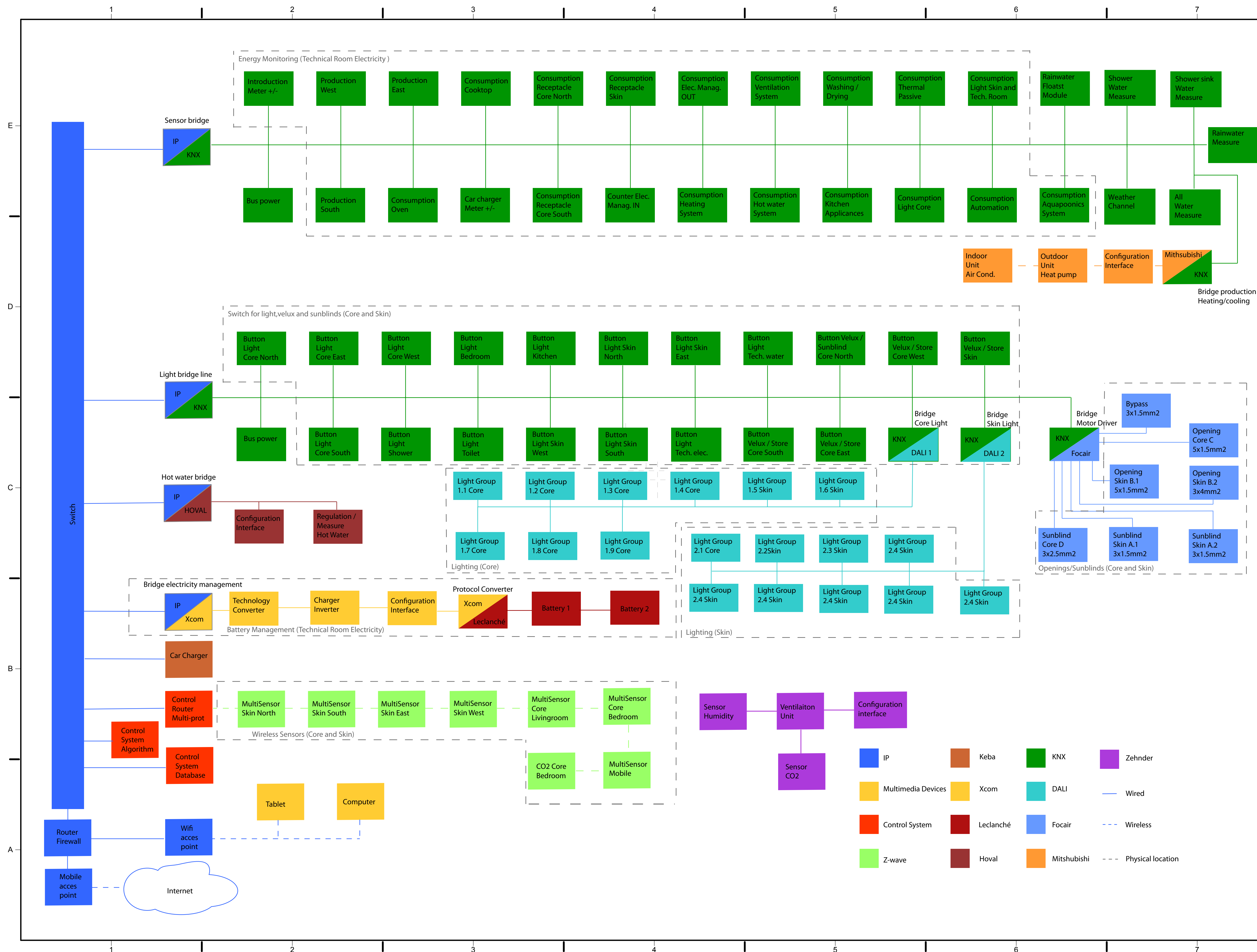
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DRAWN BY: MEYER scale: NO

COMMUNICATION DIAGRAM

T-201



Swiss Living Challenge



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 ADDRESS: smart living lab / SLC
 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
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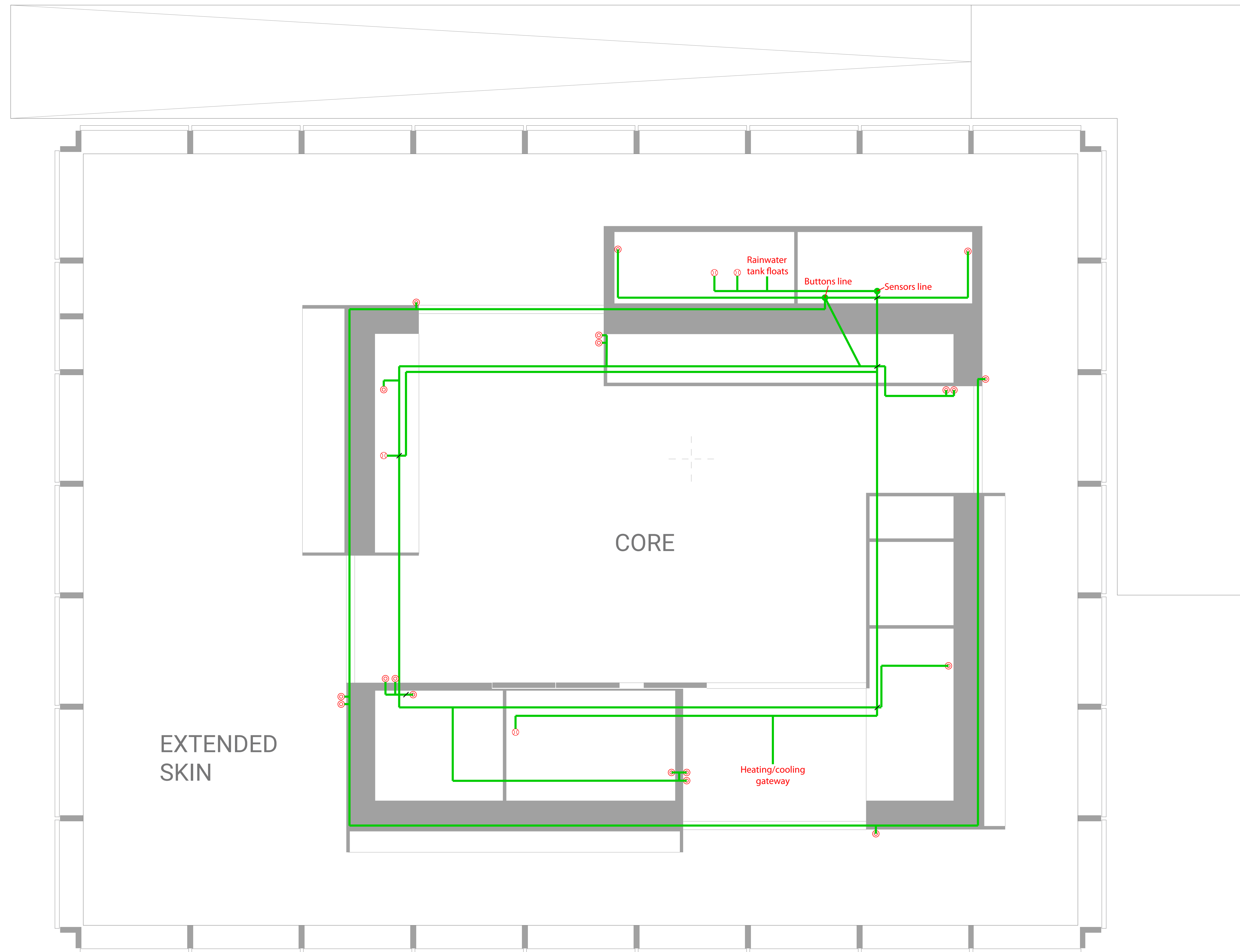
Plans are drawn with metric system (cm)

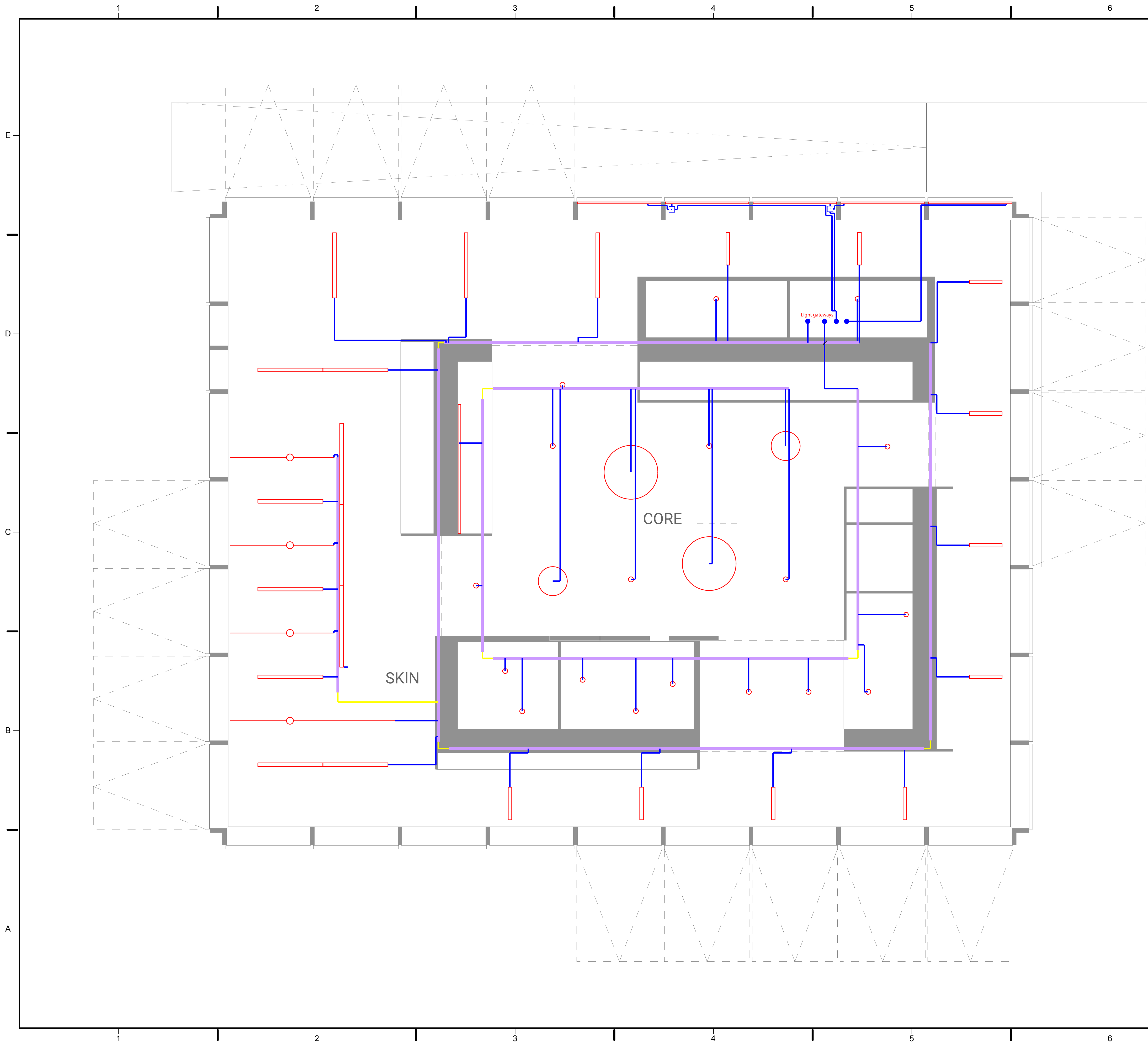
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KNX DISTRIBUTION

T-301

- KNX cable
- ⊙ KNX button
- ⊗ Flowmeter





- DALI flat cable
- DALI cable
- DALI flats cables connection
- Cables guide

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CH-1700 Fribourg

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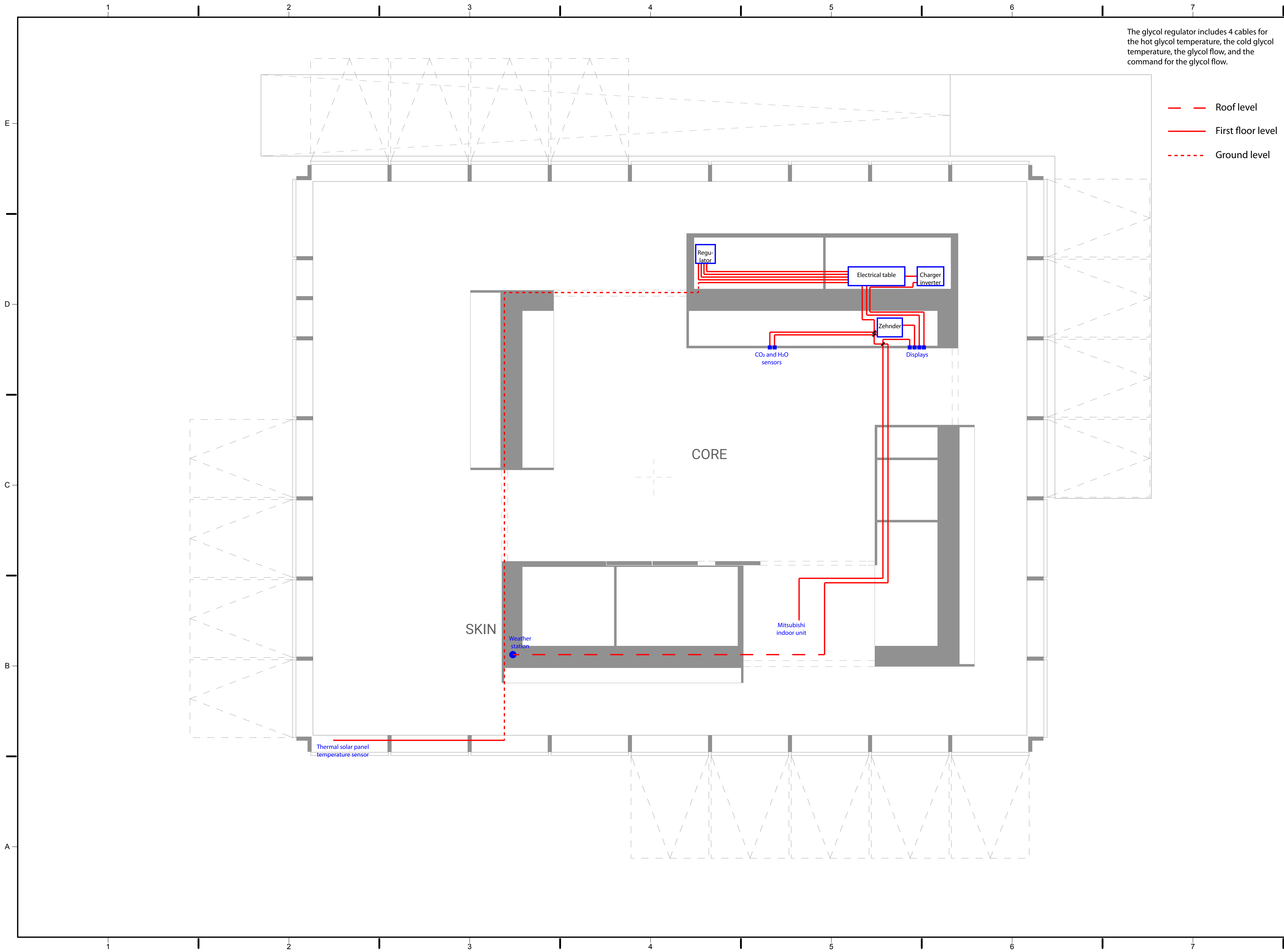
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Plans are drawn with metric system (cm)

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DALI DISTRIBUTION

T-302



The glycol regulator includes 4 cables for the hot glycol temperature, the cold glycol temperature, the glycol flow, and the command for the glycol flow.

- Roof level
- First floor level
- ... Ground level

Swiss Living Challenge



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OTHER PROTOCOLS DISTRIBUTION

T-304

Swiss Living Challenge



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 Halle bleue, site de blueFACTORY
 Passage du Cardinal 13B
 CH-1700 Fribourg
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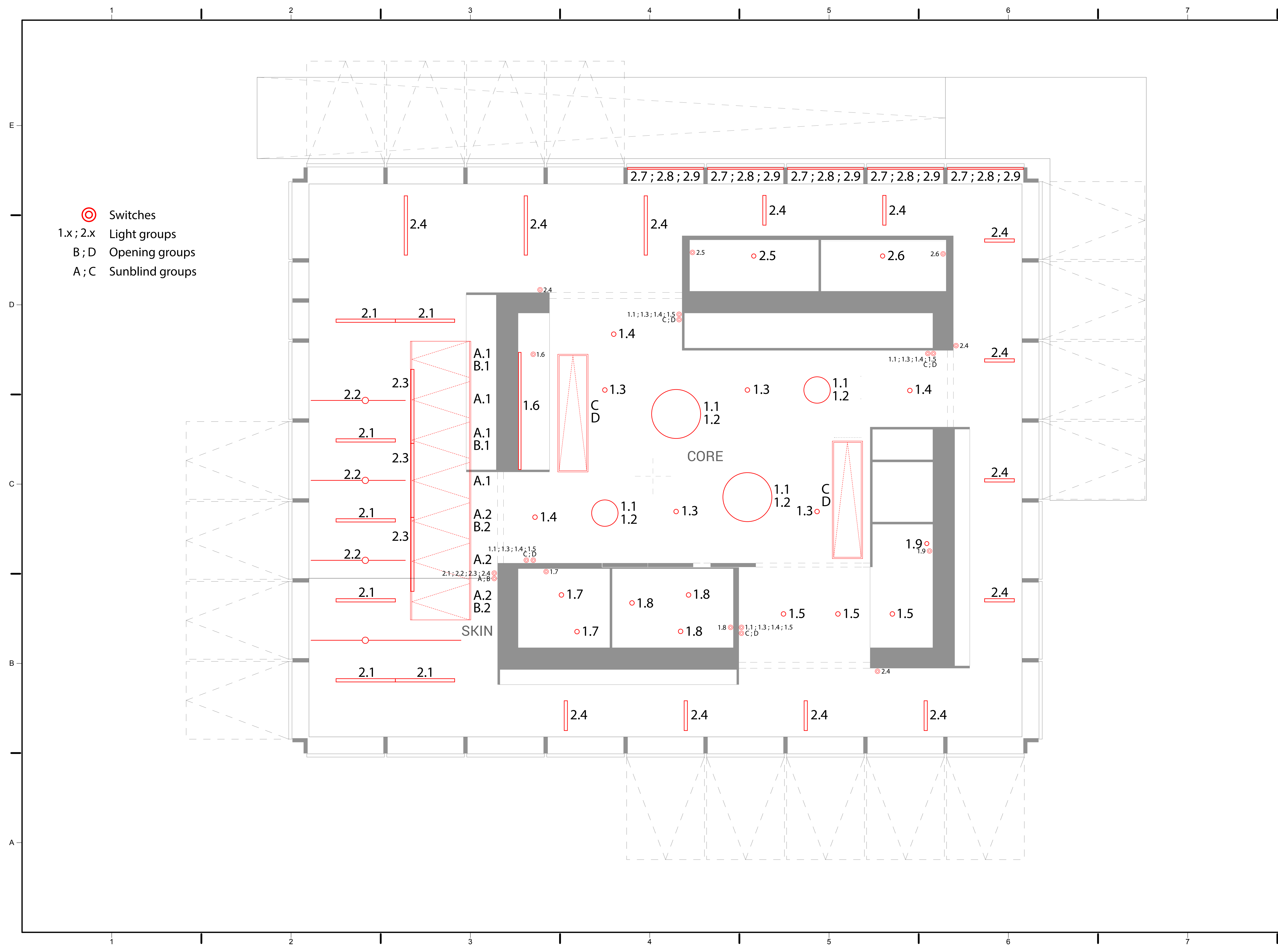


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LIGHT AND NATURAL VENTILATION GROUP PLAN

T-401



- ⊙ Switches
- 1.x; 2.x Light groups
- △ B; D Opening groups
- △ A; C Sunblind groups

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CH-1700 Fribourg

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N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE 08
02	2017-02-19	DELIVERABLE 06
01	2016-11-06	DELIVERABLE 04

DRAWN BY: MEYER scale: -

TELECOMMUNICATION SCHEDULE

T-801

Description	Manufacturer	Model	#
Push bouton for VELUX and lighth double	ABB	SIDUS-TS-2-4	5
Push bouton for VELUX and lighth quadruple	ABB	SIDUS-TS-4-8	5
Push bouton for VELUX and lighth simple	ABB	SIDUS-TS-1-2	9
Router IP/KNX	ABB	IPR/S 3.1.1	2
Weather station	ABB	WES/A 3.1	1
Weather station central unit	ABB	WZ/S1.3.1.2	1
Supply for KNX bus	ABB	SV/S 30.640.5.1	2
Gateway DALI/KNX	ABB	DG/S 1.16.1	2
Gateway ABB/KNX	ABB	ZS/S 1.1	21
Gateway for Z-wave protocole	Aeotec	Z-stick gen5	1
Universal contactor	ABB KNX	US/U4.2	2
Multisensor Z-wave	Aeotec	Multisensor ZW100	
Gateway MBUS/KNX	arcus-eds	KNX-GW-MBUS-SK01	4
CO2 sensor	SIEGENIA AUBI	SENSOAIR	1
Velux motors electrical supply	Focair	WSC 540	1
Gateway Motor controller/KNX	Focair	WSA 5MC	2
Motorlink controller	Focair	WSA 5ML	2
Gateway HOVAL/KNX	Hoval	Gateway module KNX TopTronic® E	1
Display for user interface	Hoval	Gateway module Hoval TopTronic® E	1
Gateway Mitsubishi/KNX	IntesisBox	ME-AC-KNX-1-V2	1
Wifi acces point	Netgar	FVS318N	1
Mini computer for control system	Raspberry	Raspberry Pi 3 model B/1200MHz/ARM Cort	3
Private computer for communication	WHY		
Mobile wifi access point	HUAWY	LTE CPE B315	1
Switch	Netgar	GSS116E	1
Router/firewall	Dell	01-ssc-0217 Dell sonicwall soho	1
Display for user interface	Studer-innotec	RCC-02	1
Gateway CAN BUS	Studer-innotec	Xcom-CAN	1
Gateway RS232 IP	Studer-innotec	Xcom-LAN	1
Humidity sensor	Zenhnder	TS 201 a	1
CO2 sensor	Zenhnder	TS 200 a	1
Display for user interface	Zenhnder		1

Swiss Living Challenge



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Halle bleue, site de blueFACTORY
Passage du Cardinal 13B
CH-1700 Fribourg

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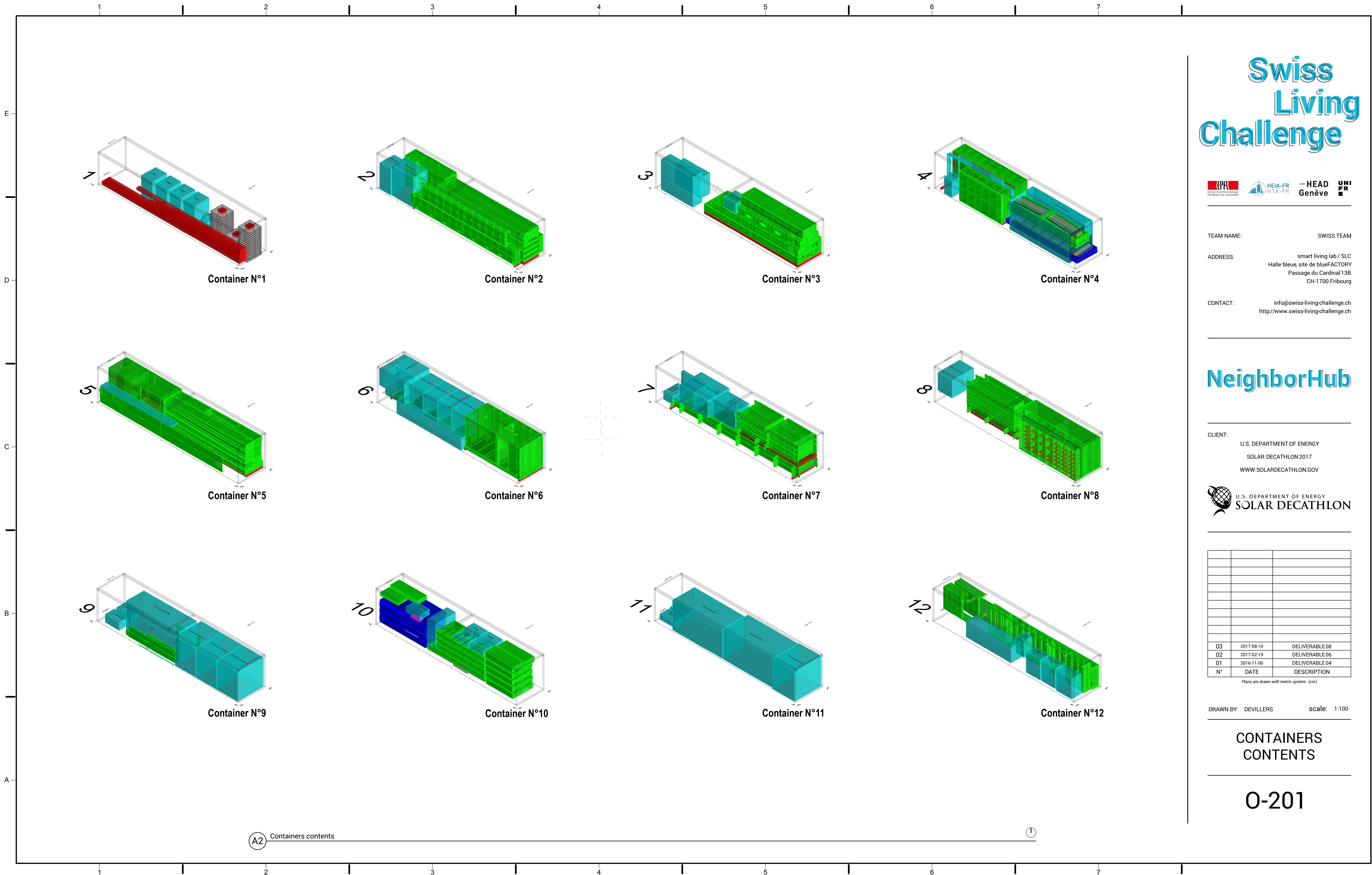
N°	DATE	DESCRIPTION
03	2017-08-10	DELIVERABLE08
02	2017-02-19	DELIVERABLE06
01	2016-11-06	DELIVERABLE04

Plans are drawn with metric system (cm)

DRAWN BY: DEVILLERS scale: 1:100

CONTAINERS CONTENTS

0-201



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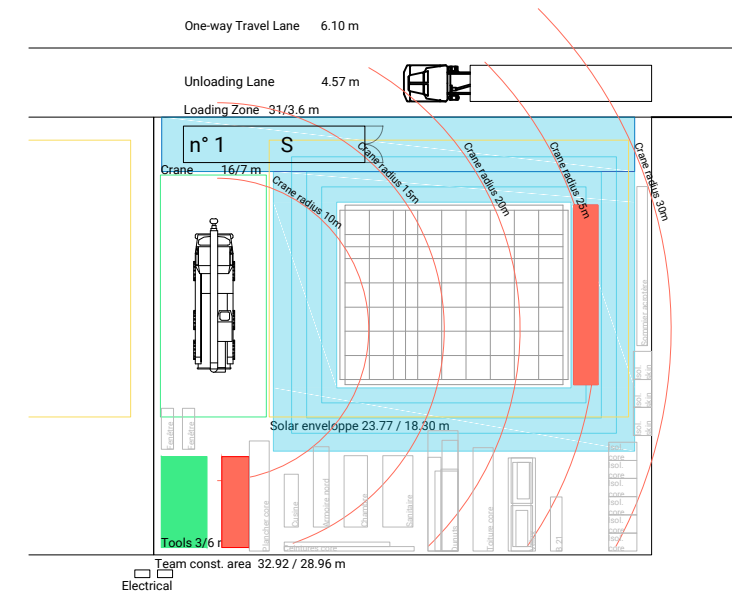
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02	2017-02-19	DELIVERABLE 06
01	2016-11-15	DELIVERABLE 04

Plans are drawn with metric system (cm)

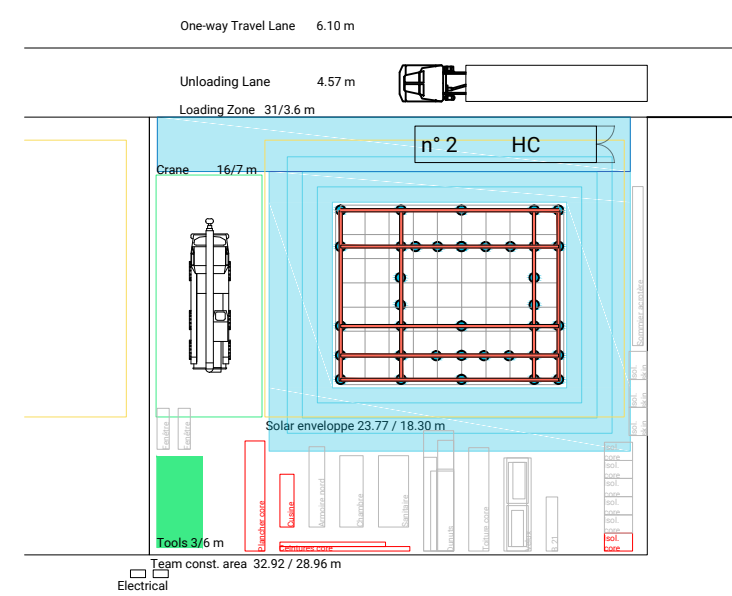
DRAWN BY: MATIAS scale: -

ASSEMBLY METHODOLOGY

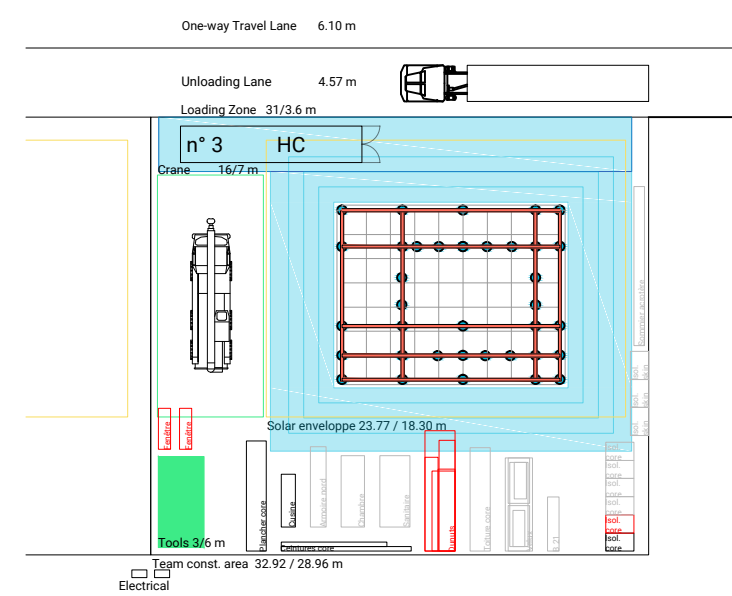
O-301



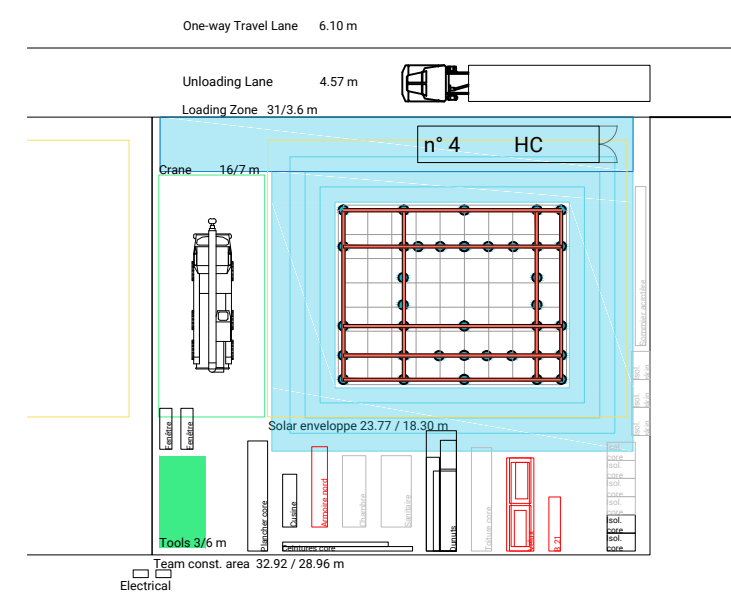
- D1 Step 1 Day 1**
- Unloading of the container n° 1
 - Construction site installation
 - Crane installation
 - Field marking



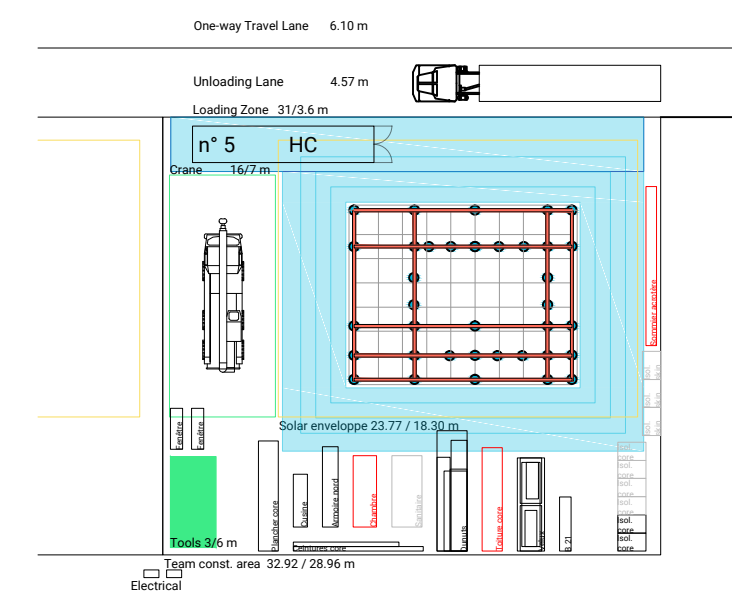
- D2 Step 2 Day 1**
- Unloading of the container n° 2
 - Plots placement
 - Foundations installation



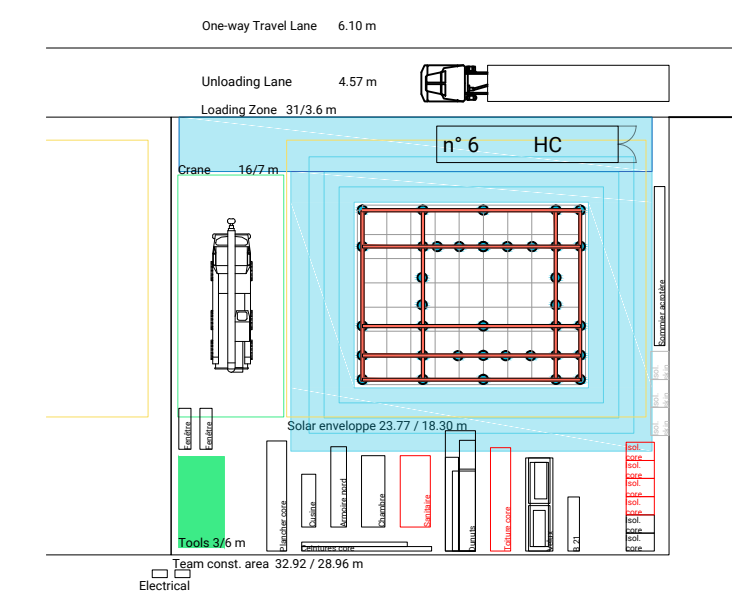
- D3 Step 3 Day 1**
- Unloading of the container n° 3
 - Foundations installation
 - Aquaponic basin installation



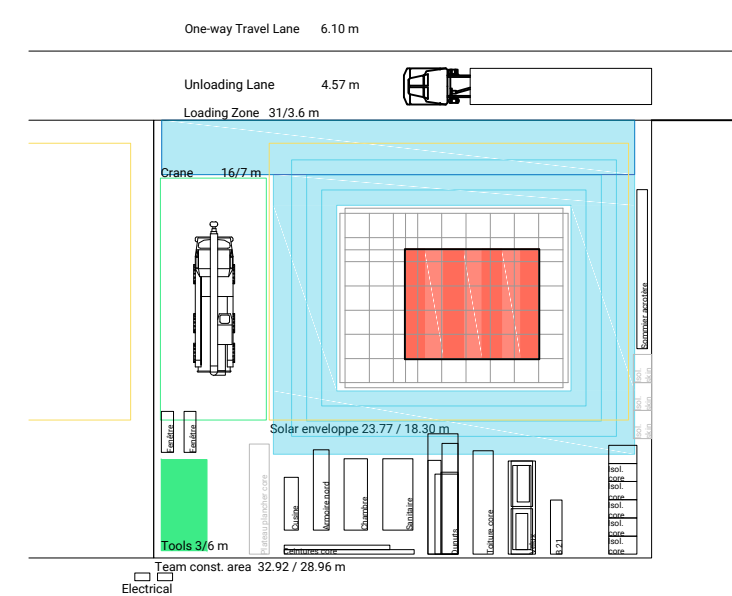
- D4 Step 4 Day 1**
- Unloading of the container n° 4
 - Foundations installation
 - Technical network under the house



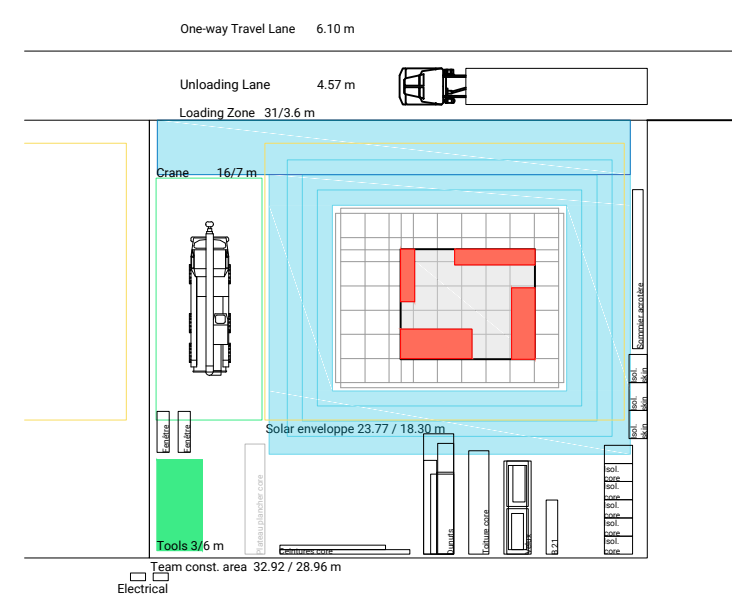
- D5 Step 5 Day 1**
- Unloading of the container n° 5
 - Foundations installation



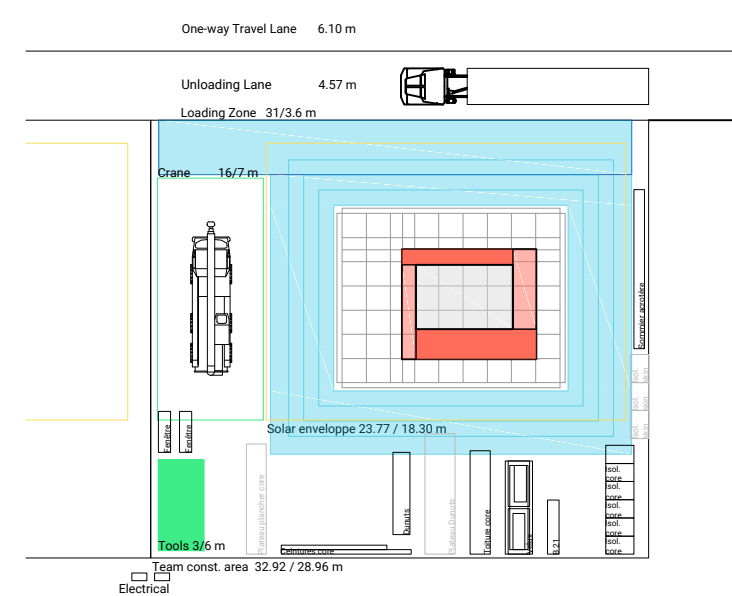
- D5 Step 6 Day 1**
- Unloading of the container n° 6
 - Foundations installation



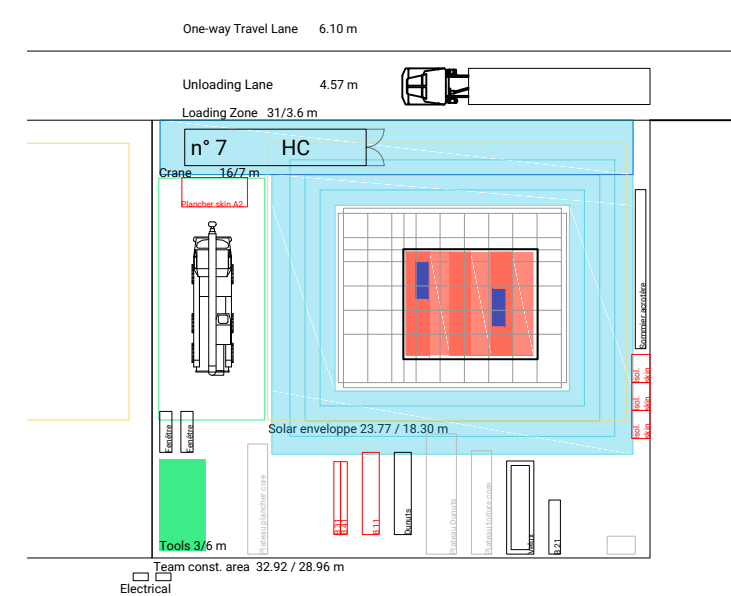
- C1 Step 7 Day 2**
- Core floor construction



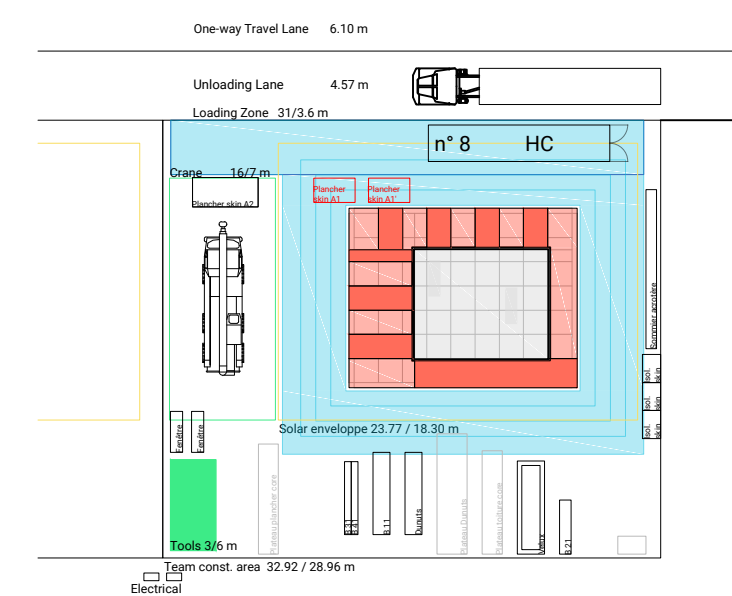
- C2 Step 8 Day 2**
- Core block installation



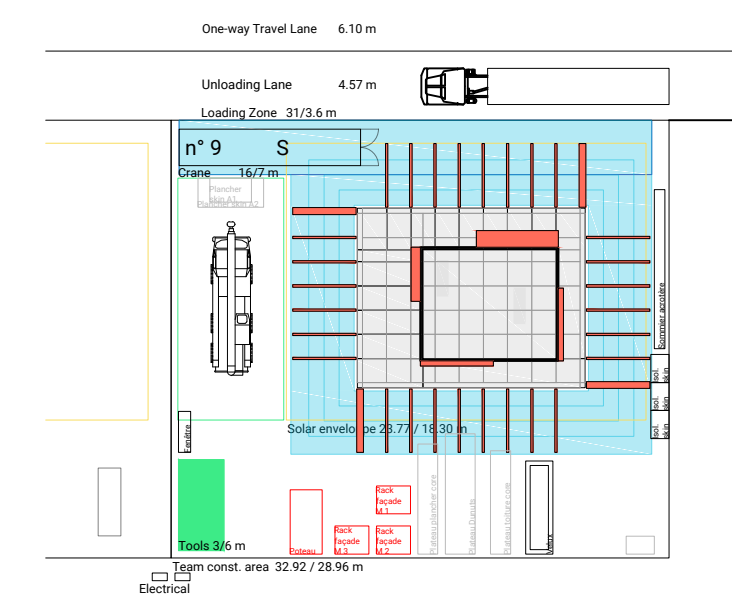
- C3 Step 9 Day 2**
- Technical ring assembly



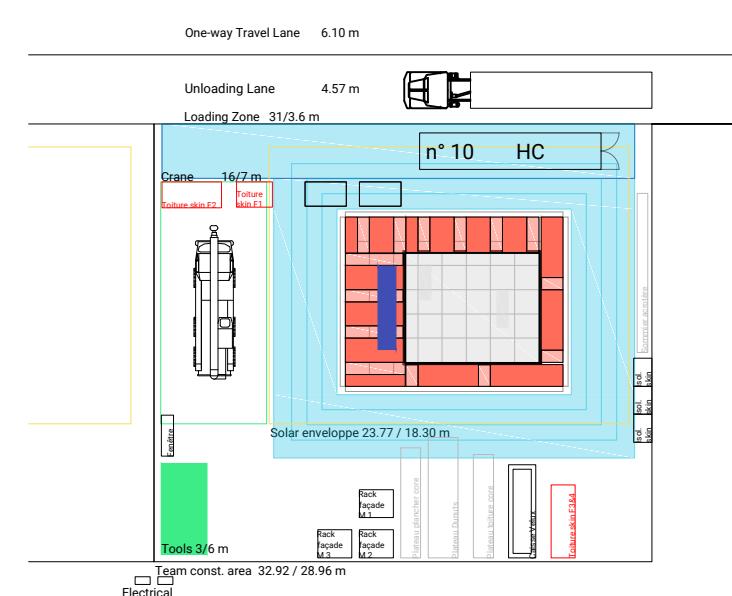
- C3 Step 10 Day 2**
- Unloading of the container n° 7
 - Roof core assembly
 - Skylights installation



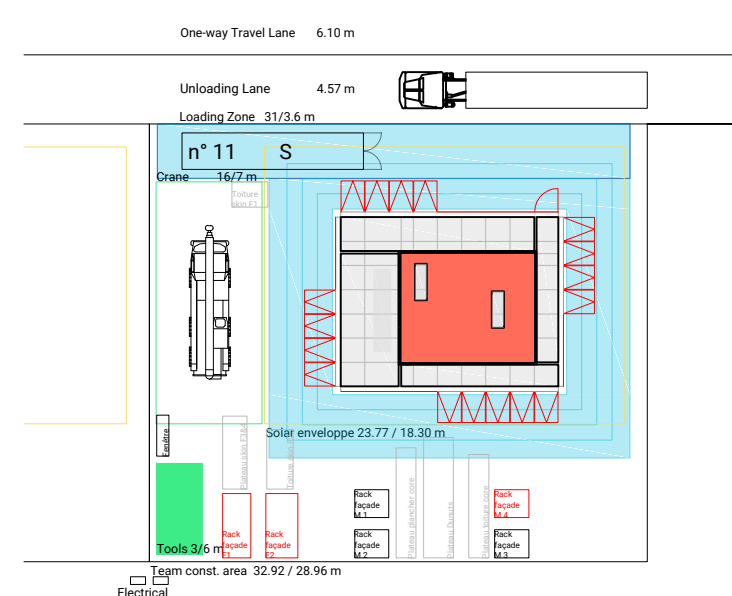
- C4 Step 11 Day 2**
- Unloading of the container n° 8
 - Core windows setting
 - Technical elements connection



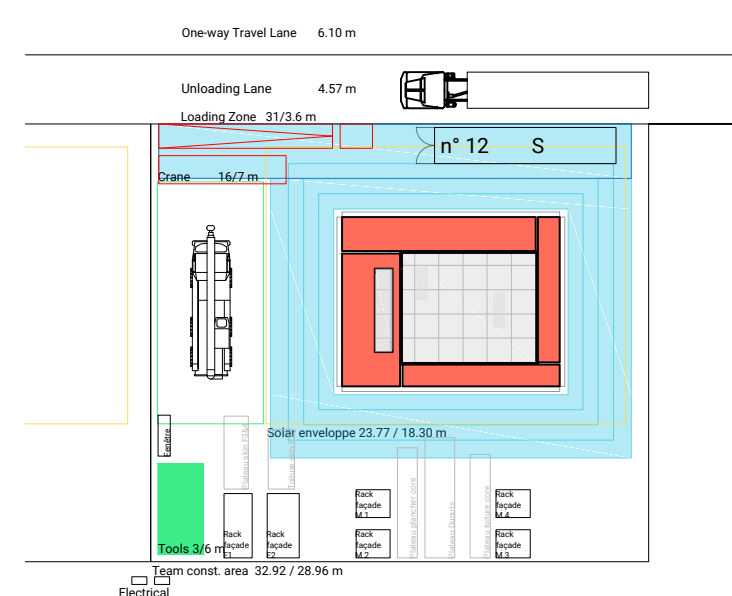
- C5 Step 12 Day 2**
- Unloading of the container n° 9
 - Skin cabinet installation
 - Technical reverse donuts installation
 - Skin poles installation



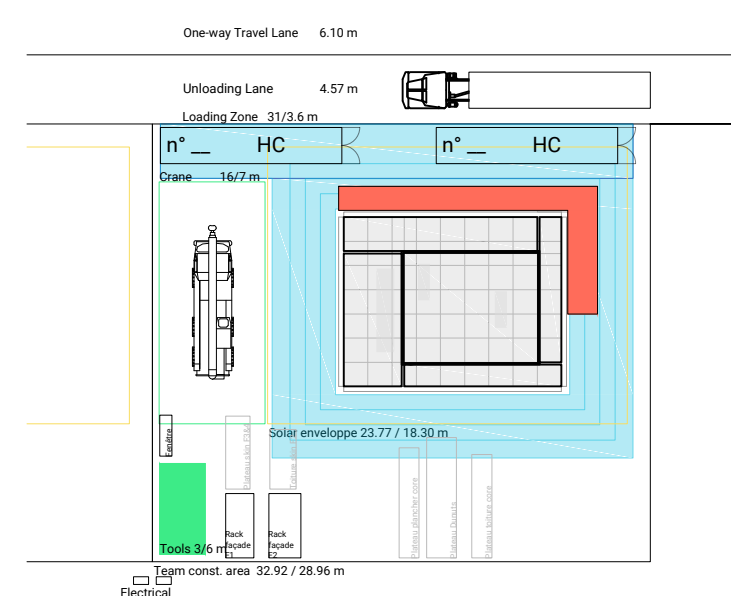
- A1 Step 13 Day 2**
- Unloading of the container n° 10
 - Roof skin assembly
 - Skin skylight installation



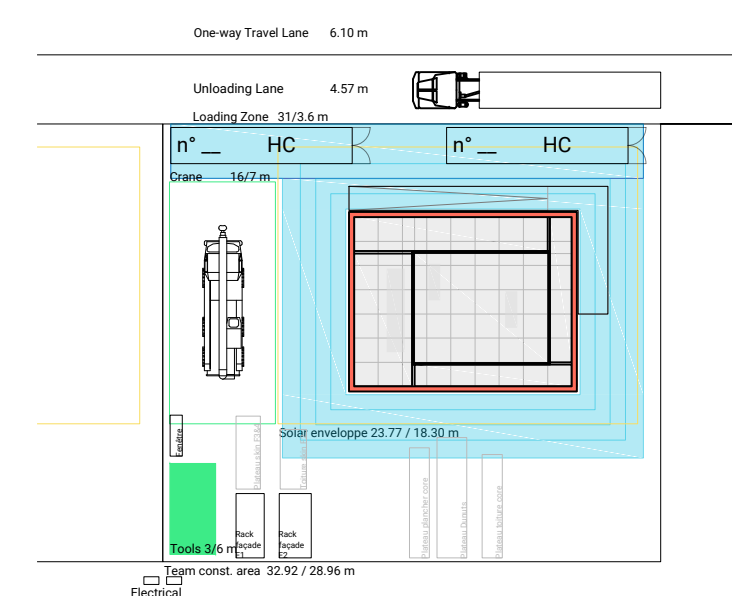
- A2 Step 14 Day 3**
- Unloading of the container n° 11
 - Façade assembly
 - Roof core insulation
 - Roof waterproofing
 - Tinware installation



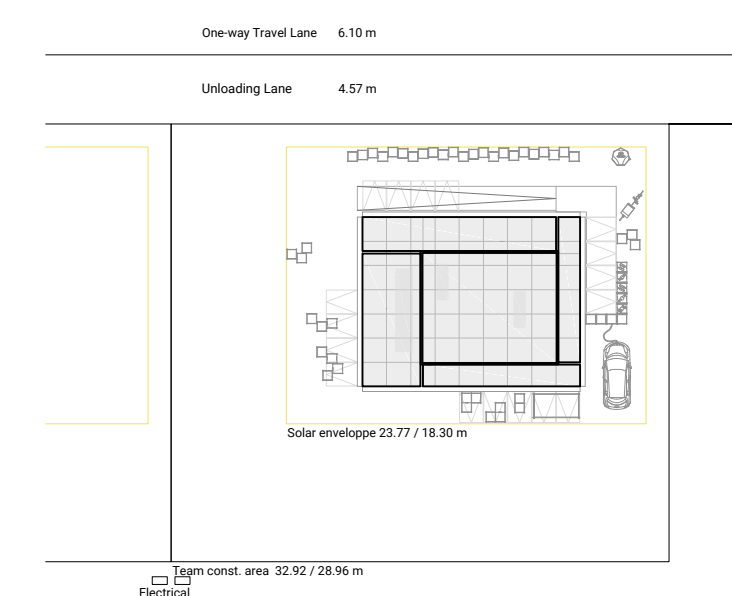
- A3 Step 15 Day 3**
- Unloading of the container n° 12
 - Roof waterproofing
 - Green roof installation (pots)
 - Solar panels connecting



- A4 Step 16 Day 4**
- Waters tanks installation
 - Ramp assembly
 - Core floor finish
 - Basin phytotreatment assembly
 - Aquaponic installation



- A5 Step 17 Day 4**
- Technical installation testing
 - Tinware installation
 - Landscaping
 - Storage and cleaning before leaving



- A5 Step 18 Day 5**
- Reserve day
 - Technical installation testing

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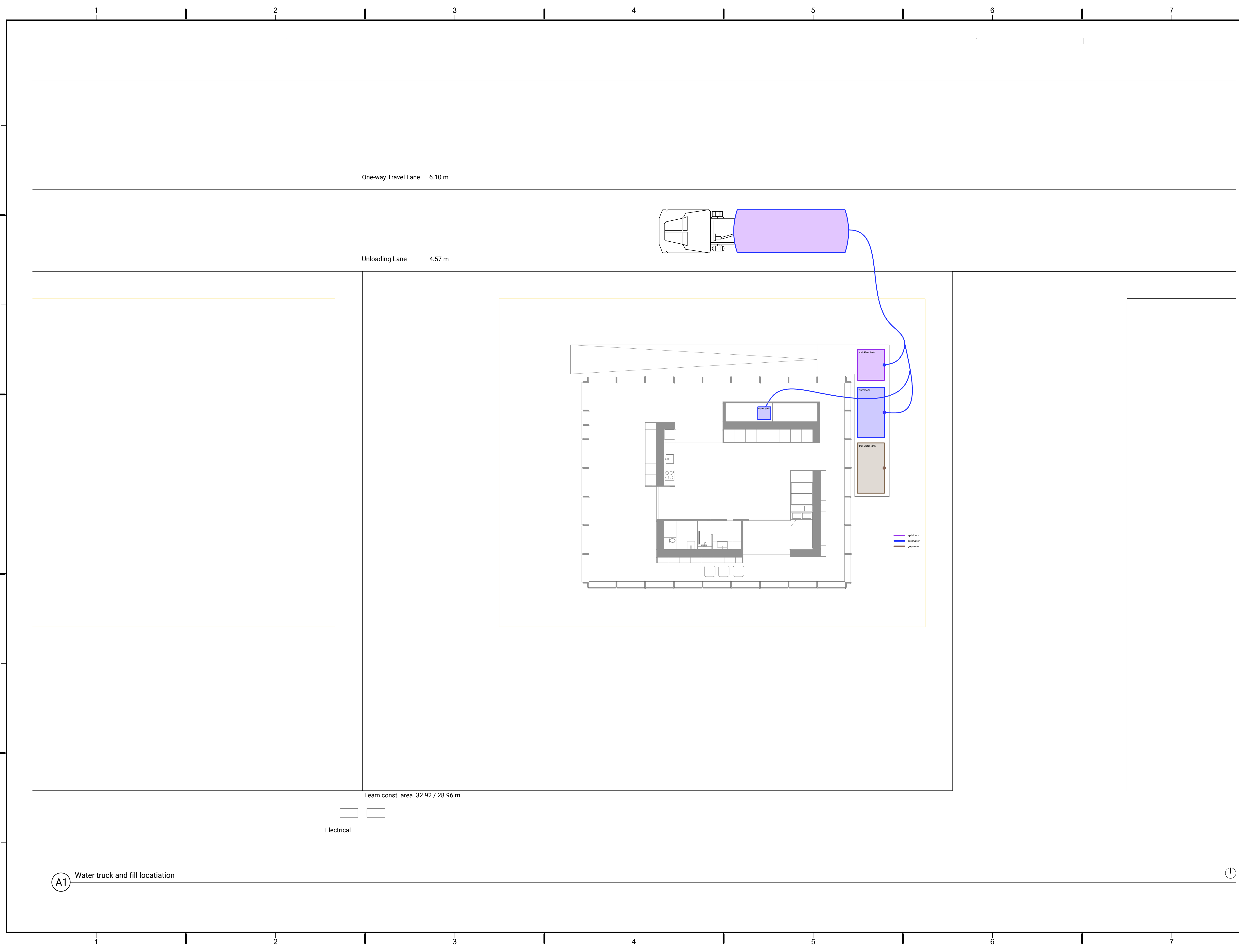
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DRAWN BY: MATIAS scale: -

WATER TRUCK AND FILL LOCATION

0-311



A1 Water truck and fill location



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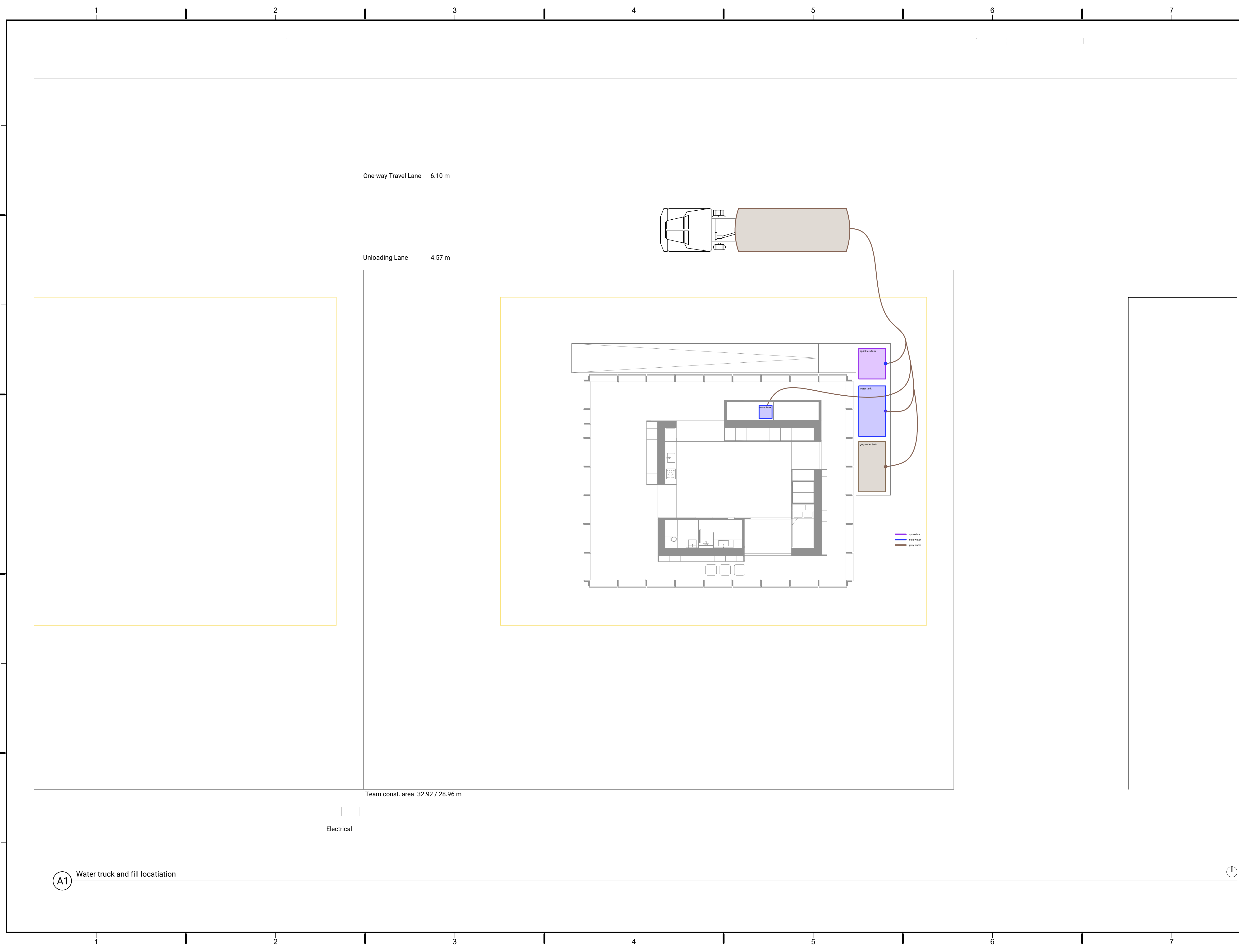
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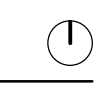
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WATER TRUCK AND EMPTYING LOCATION

0-312



A1 Water truck and fill location



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STANDING AREAS

0-401

