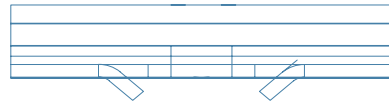


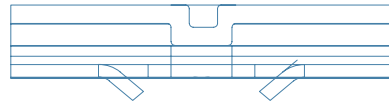
SolarStand® In-roof system ST.I.33

Important components / profiles

Cross connector ST.B.520



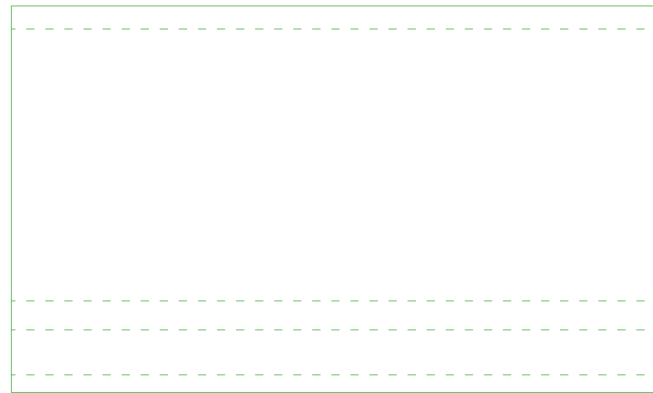
Horizontal butt connector ST.B.501



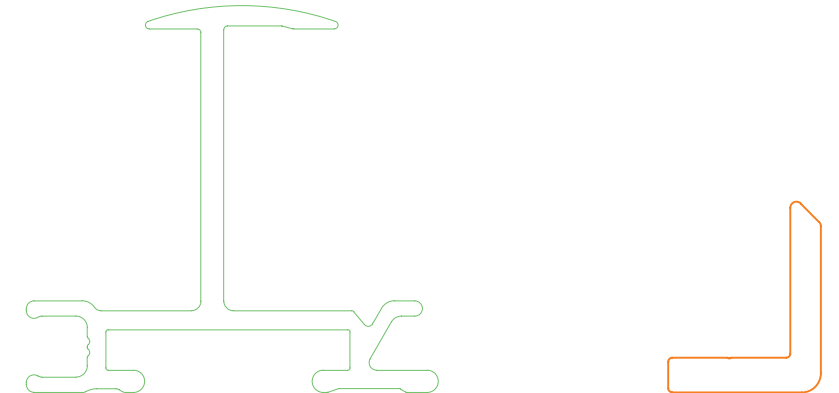
Horizontal drainage ST.PI.119



Horizontal insertion rails ST.PH.xx (33-50 mm)



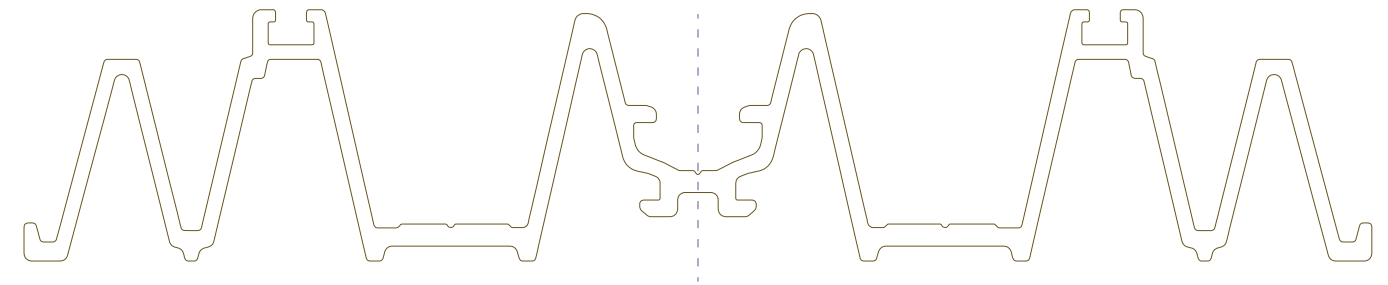
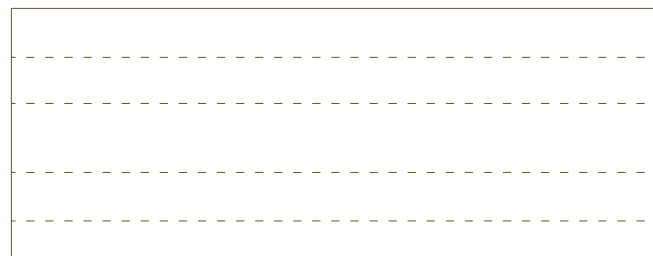
End bracket ST.B.103.2



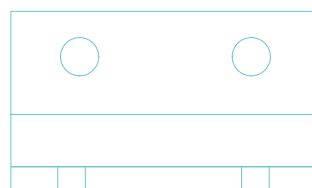
EPDM rubber seal (L=150mm) ST.B.503



Vertical drainage ST.PI.33-2



Lateral clamp for fixed and sliding point ST.B.502

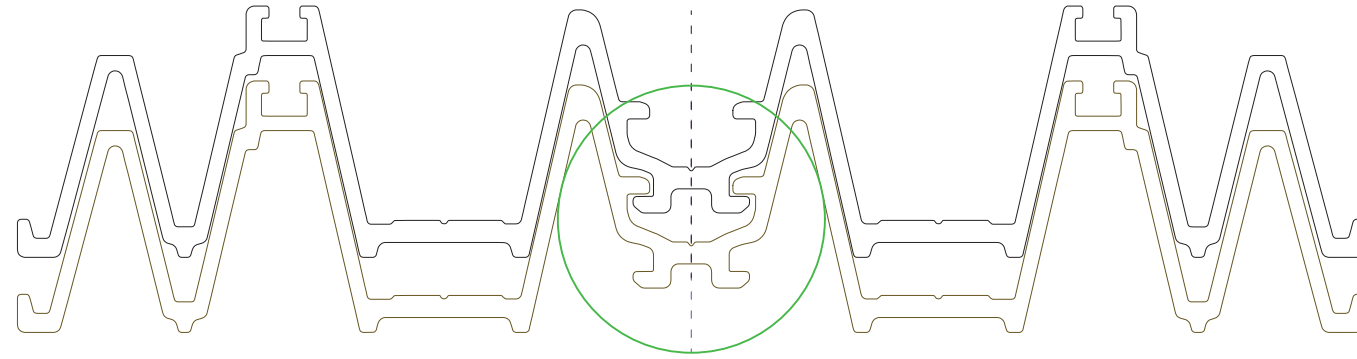


solar stand swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Important components / Profiles			
	01 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created			
30.11.2021 Processing date				

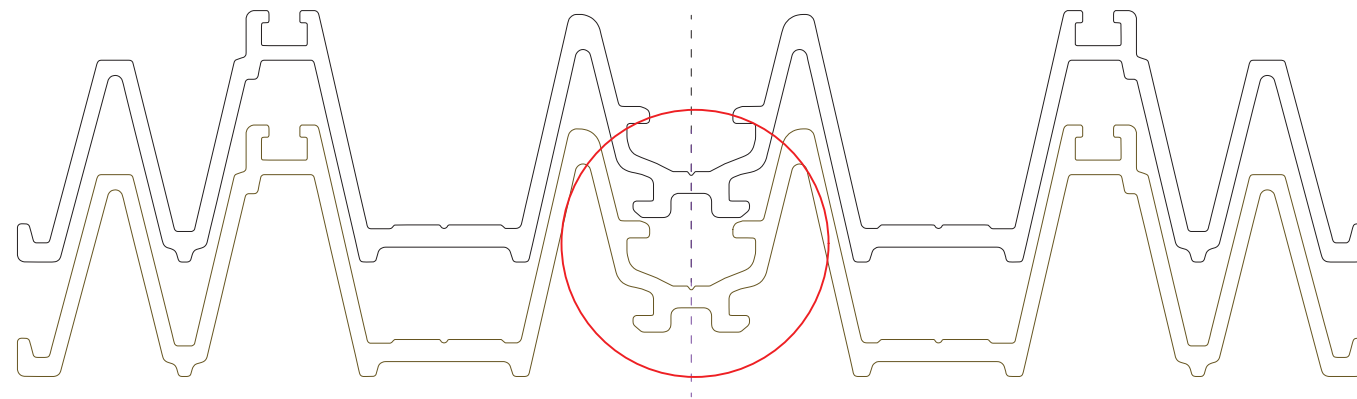
SolarStand® In-roof system ST.I.33

Vertical drainage scaling (ST.PI.33-2)

CORRECT



INCORRECT



solar stand swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Vertical drainage scaling (ST.PI.33-2)			
	02 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created	0 1 2 5 CM		
	30.11.2021 Processing date			

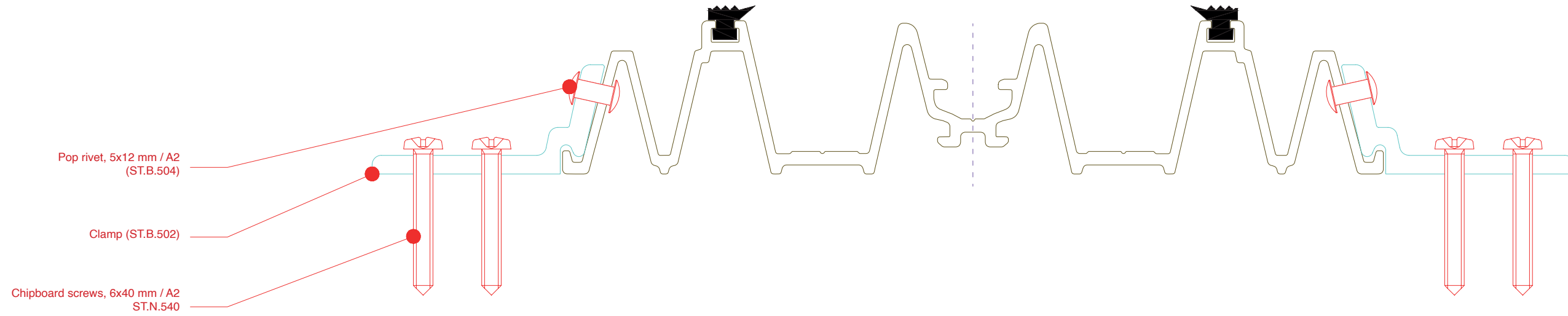
SolarStand® In-roof system ST.I.33

Fixed and sliding points



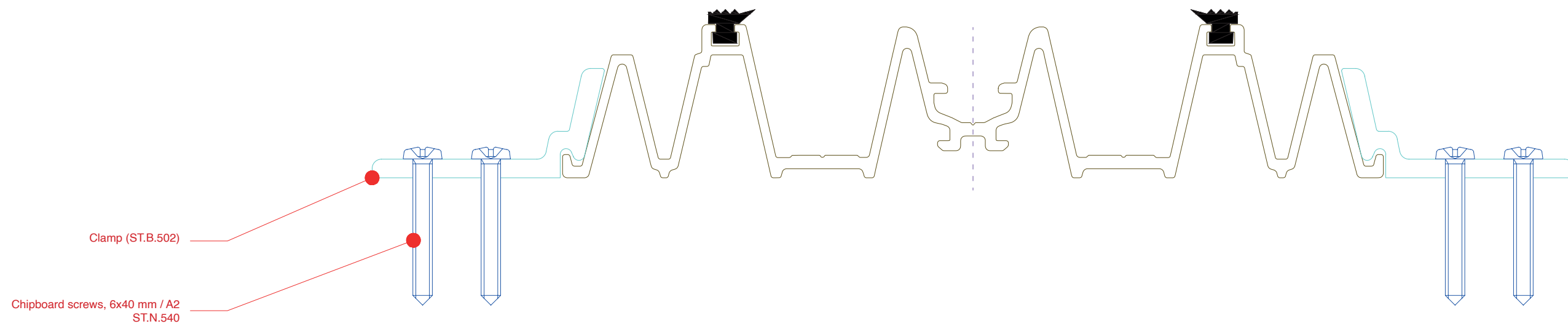
FIXED POINT

Marked with a red square in the planning documents of the project report
- Per clamp, 2 x pop rivets and 2 x wood screws



SLIDING POINT

Marked with a blue square in the planning documents of the project report
- Per clamp, 2 x wood screws

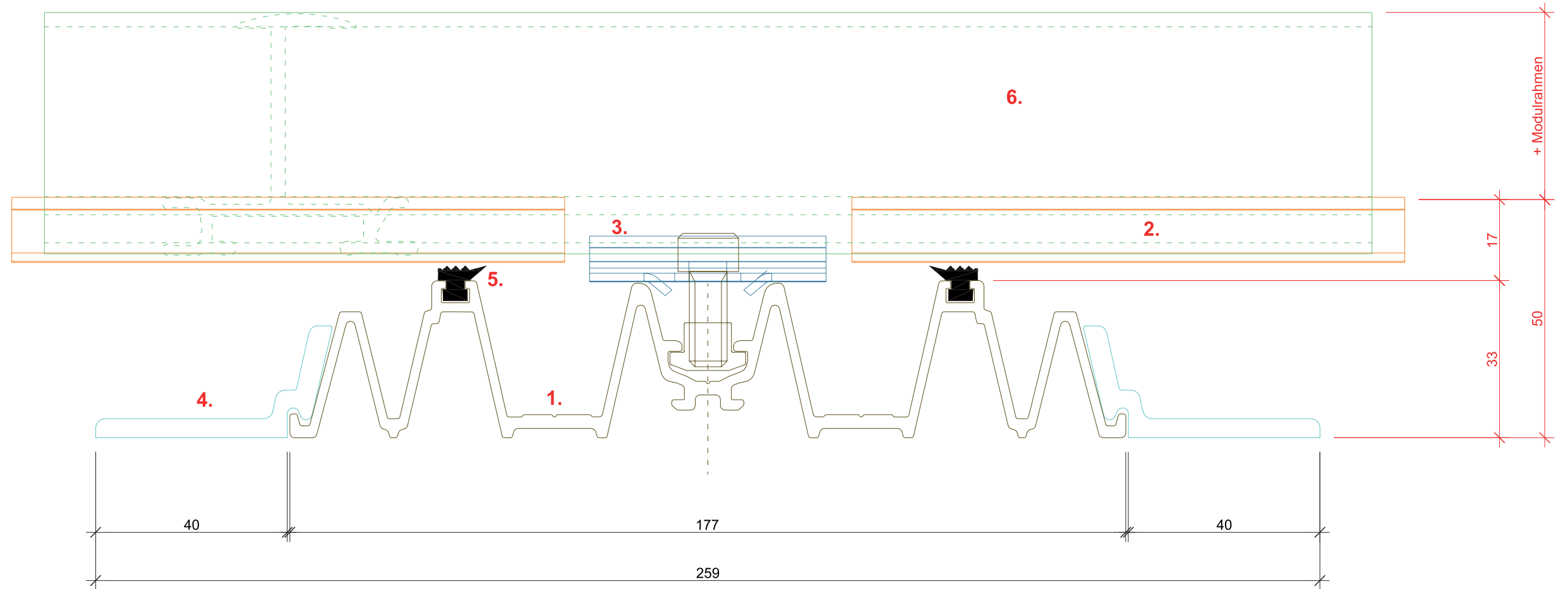


solar stand swift smart secure	Fixed and sliding points			
	03 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created	0 1 2 5 CM		
Solarteam AG Chrial 10 6044 Udligenswil	30.11.2021 Processing date			

SolarStand® In-roof system ST.I.33

Structure height:

The vertical drainage rail (ST.PI.33-2) is installed on the battens with laterally attached fixed and sliding points (ST.B.502).



Key

1. Vertical drainage ST.PI.33-2
2. Horizontal drainage ST.PI.119
3. Cross connector ST.B.520
4. Clamp ST.B.502
5. EPDM rubber seal (L=150mm) ST.B.503
6. Horizontal insertion rails ST.PH.xx (30-42 mm)



Elements and specifications of the In-roof system

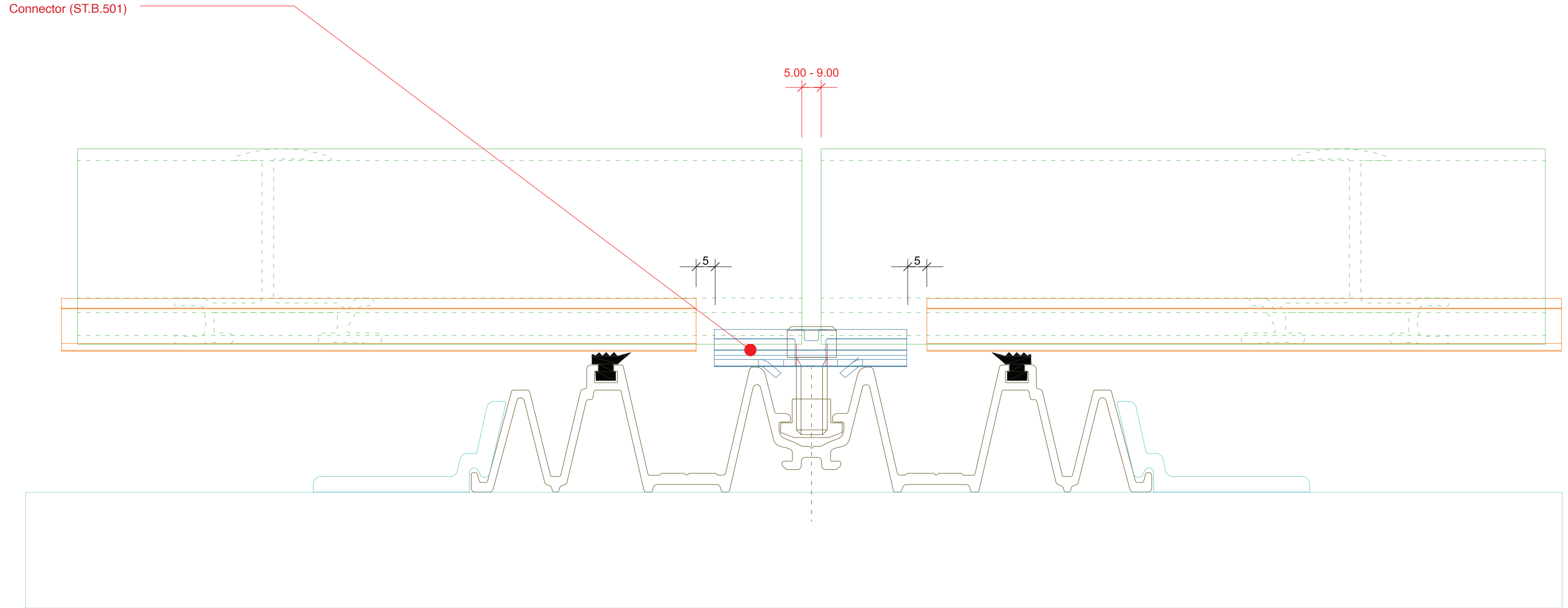


On-site elements and superstructures



solar stand swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Structure height			
	04 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created			
30.11.2021 Processing date				



SolarStand® In-roof system ST.I.33

Connection of horizontal insertion rail



IMPORTANT:
The butt joint on the insertion rail has to be positioned centrally above the vertical drainage.

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

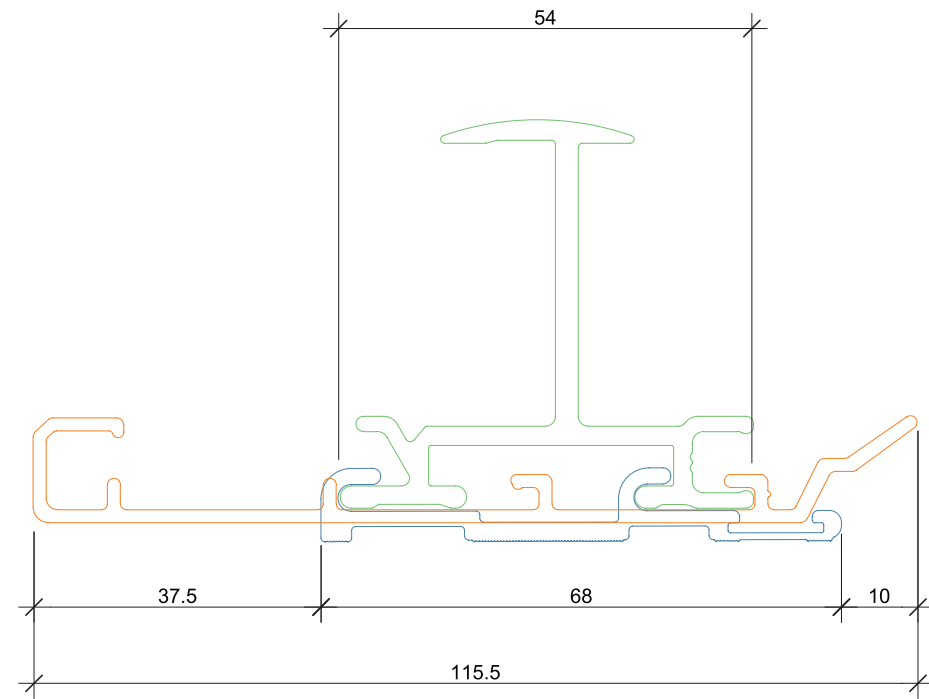
 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Connection of horizontal insertion rail		
	05 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format
	04.10.17 Date created		1:1 Scale
	30.11.2021 Processing date		

SolarStand® In-roof system ST.I.33

Horizontal drainage component (ST.PI.119)

- Field

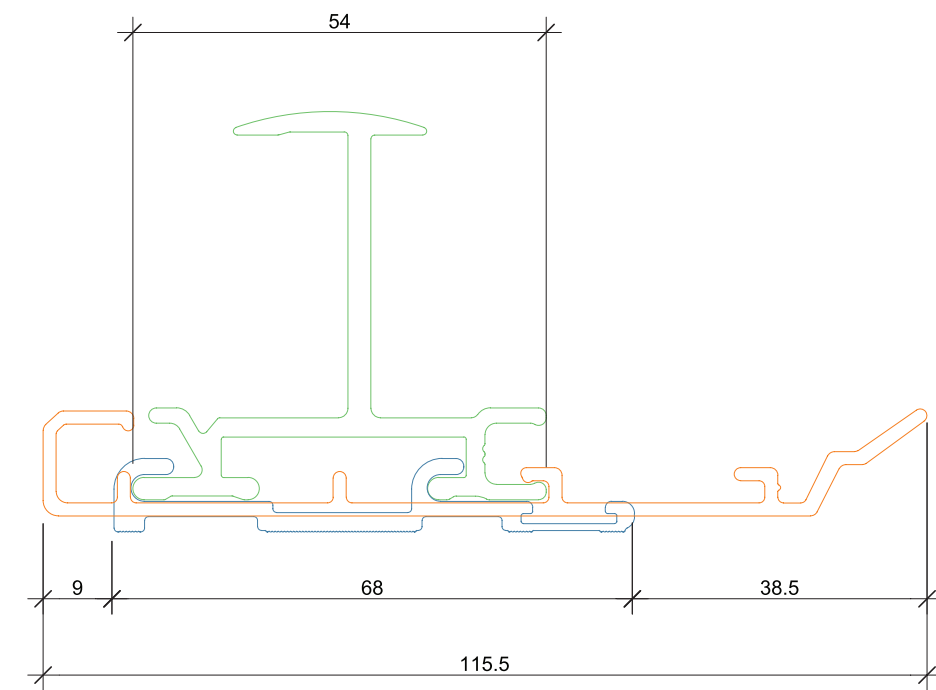
- Rood ridge







SolarStand® In-roof system ST.I.33

Horizontal drainage component (ST.PI.119)

- Eaves (only to be installed on eaves)

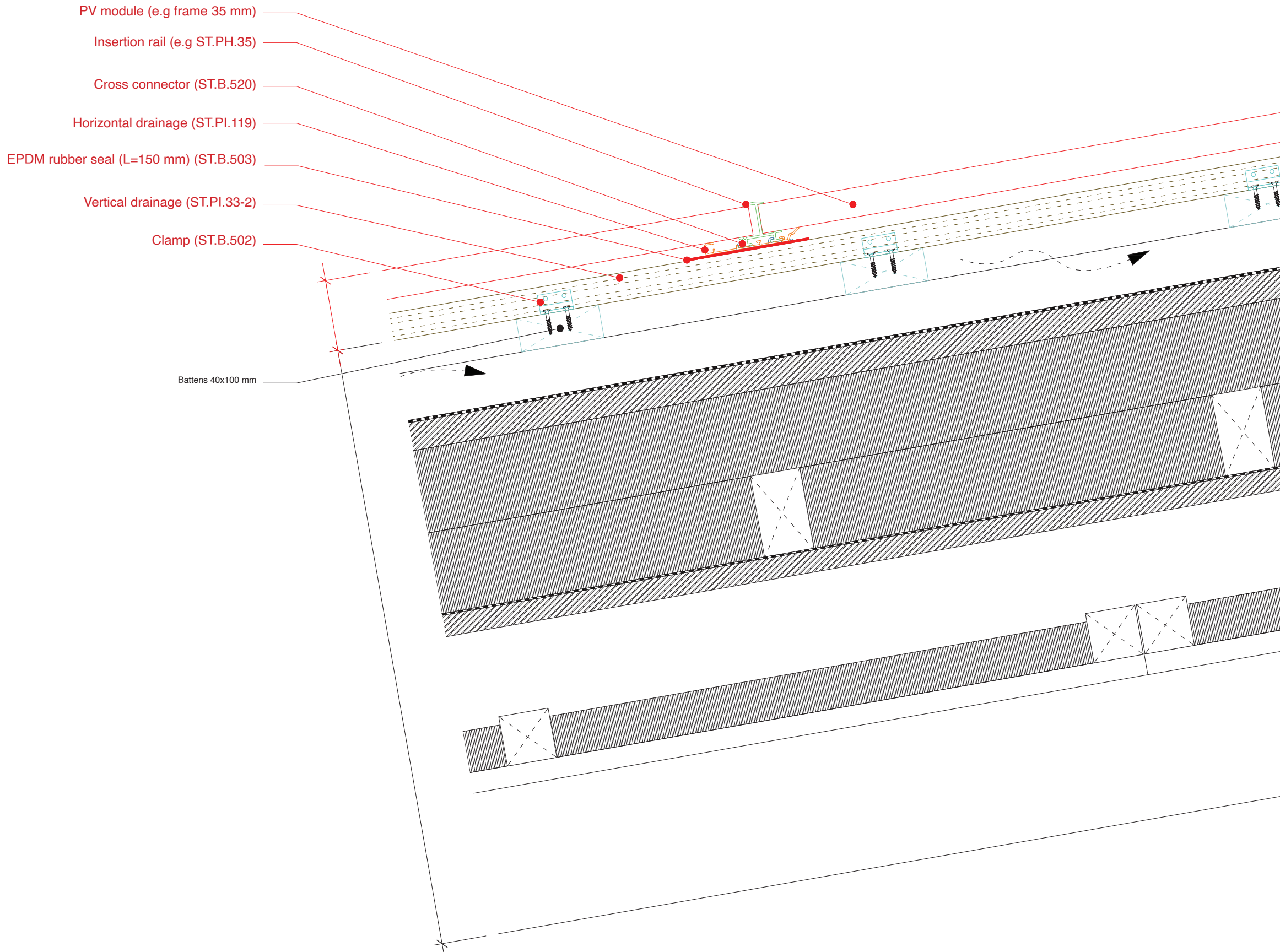


-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chvri 10 6044 Udligenswil	Horizontal drainage component			
	06 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created			
30.11.2021 Processing date				

SolarStand® In-roof system ST.I.33



Horizontal drainage module field / roof ridge




Possible roof superstructure:

External

- SolarStand® In-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Sub-roofing membrane for exceptional stress, temperature resistant to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

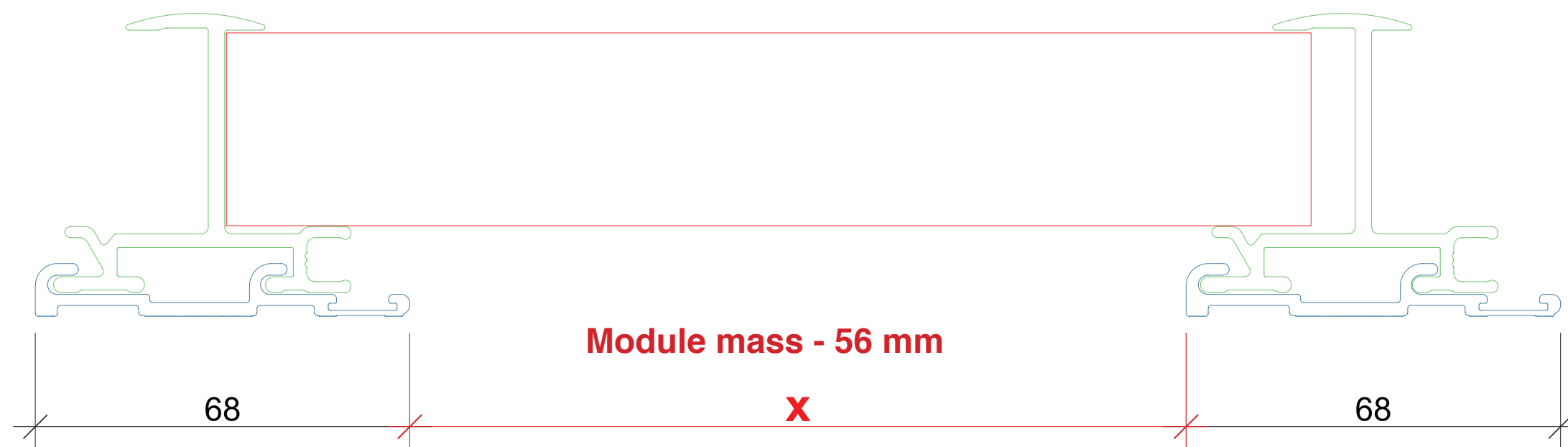
 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Horizontal drainage module field			
	07 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created	0 1 2 5 10 15 20		
	30.11.2021 Processing date			

SolarStand® In-roof system ST.I.33

Clearance (X)

Top side cross connector ST.B.520

Bottom side cross connector ST.B.520



Elements and specifications of the In-roof system

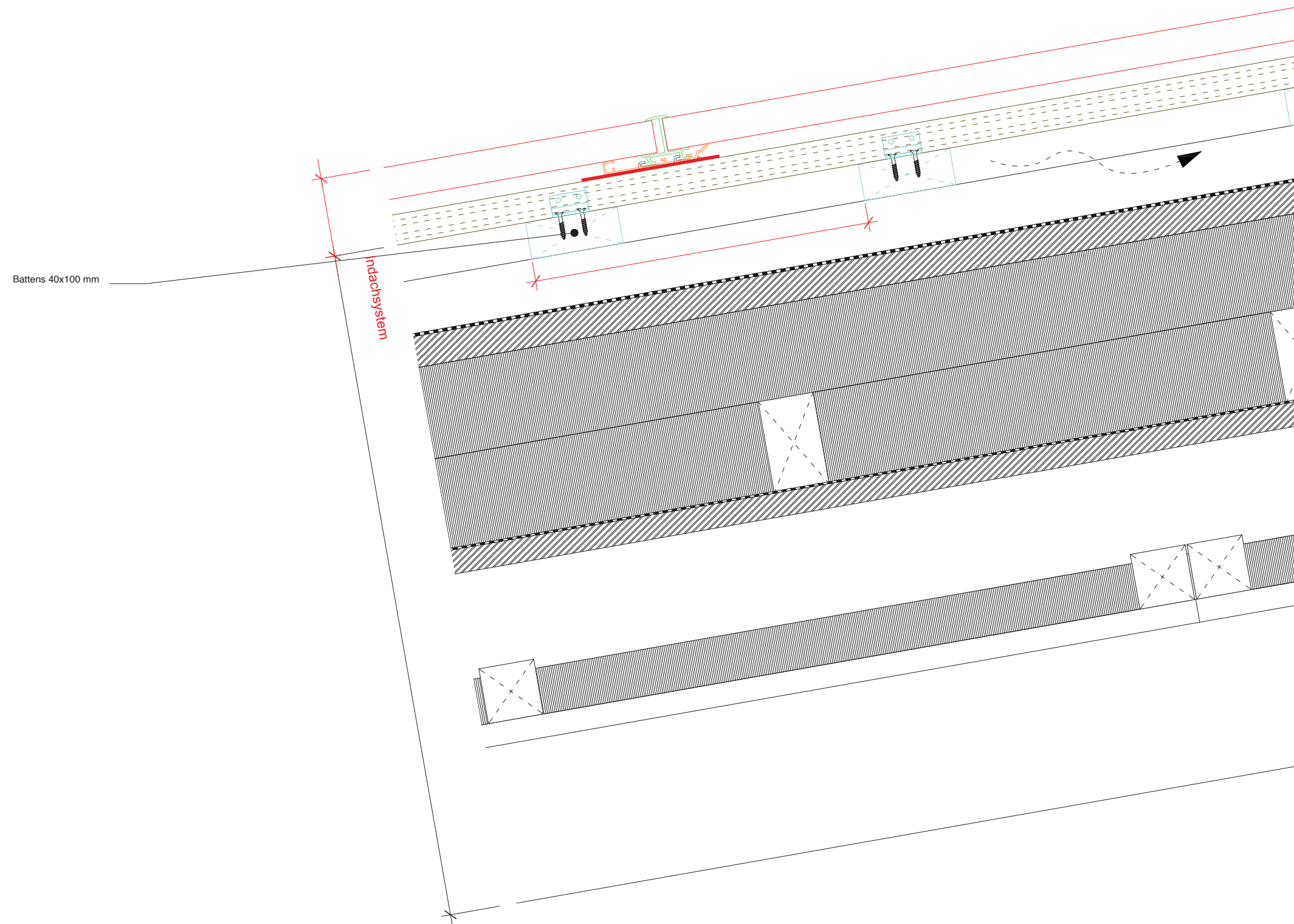


On-site elements and superstructures

solar stand swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Clearance			
	08 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created	0 1 2 5 10 CM		
	30.11.2021 Processing date			

SolarStand® In-roof system ST.I.33

Battens/batten spacing



Possible roof superstructure:



External



- SolarStand® In-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Sub-roofing membrane for exceptional stress, temperature resistant to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

Battens/batten spacing						
Metres above sea level incl. correction factor for snow load zone acc. to SIA 260/261	< 700 m or more < 2.4 kN/m ²		700-900 or 2.4 -3.6 kN/m ²		900+ or 2.4 -3.6 kN/m ²	
Module alignment	Landscape	Portrait	Landscape	Portrait*	Landscape	Portrait*
Batten spacing (max.)	1000 mm	1000 mm	1000 mm	1000 mm	500 mm	500 mm
Battens	100 x 40 mm	100 x 40 mm	100 x 40 mm	100 x 40 mm	100 x 40 mm	100 x 40 mm

The battens need to be screwed to the counter battens at the fixed points.

* The modules need to be supported vertically in the centre by at least one ST.B.505 spacer.
* The horizontal insertion rail has to be supported by additional battens.

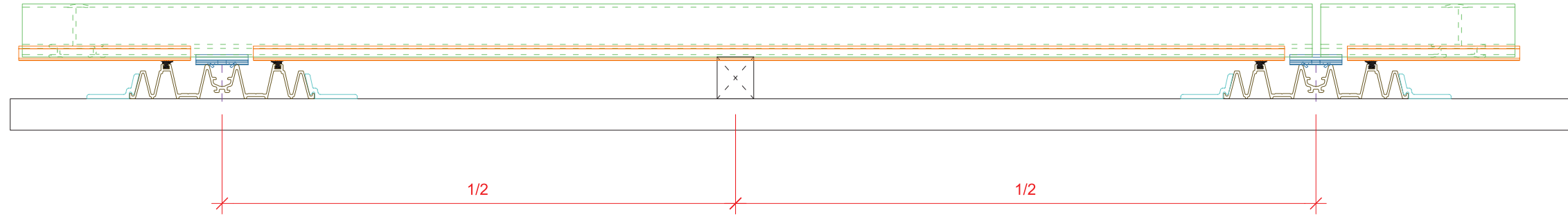
-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chiräi 10 6044 Udligenswil	Battens/batten spacing			
	09 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
04.10.17 Date created				
30.11.2021 Processing date				

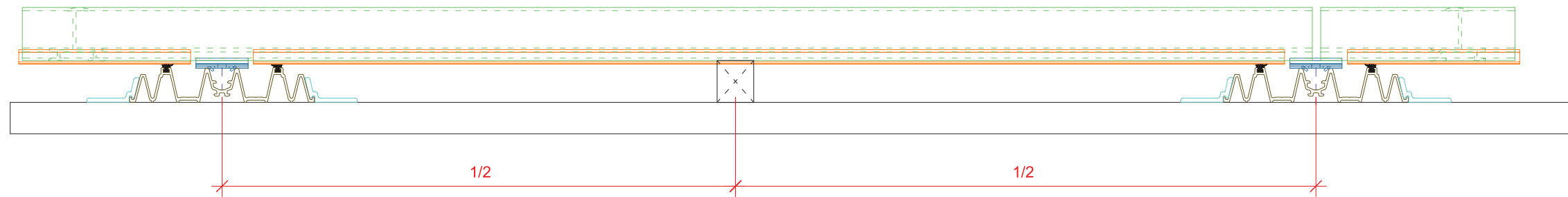
SolarStand® In-roof system ST.I.33

Vertical support bar for high loads

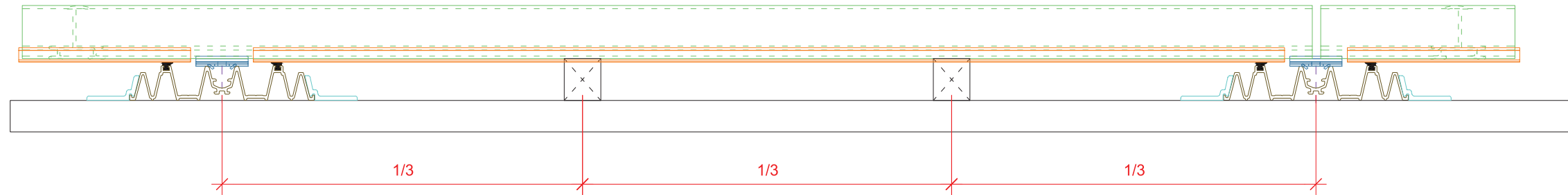
Laying type: Portrait
 Snow load: >3.6 kN/m²
 Batten dimensions: 37 x 57 mm or 35 x 35 mm



Laying type: Landscape
 Snow load: > 2.4 kN/m² to < 3.6 kN/m²
 Batten dimensions: 37 x 57 mm or 35 x 35 mm







Laying type: Landscape
 Snow load: >3.6 kN/m²
 Batten dimensions: 37 x 57 mm or 35 x 35 mm



Planning specification/disclaimer:

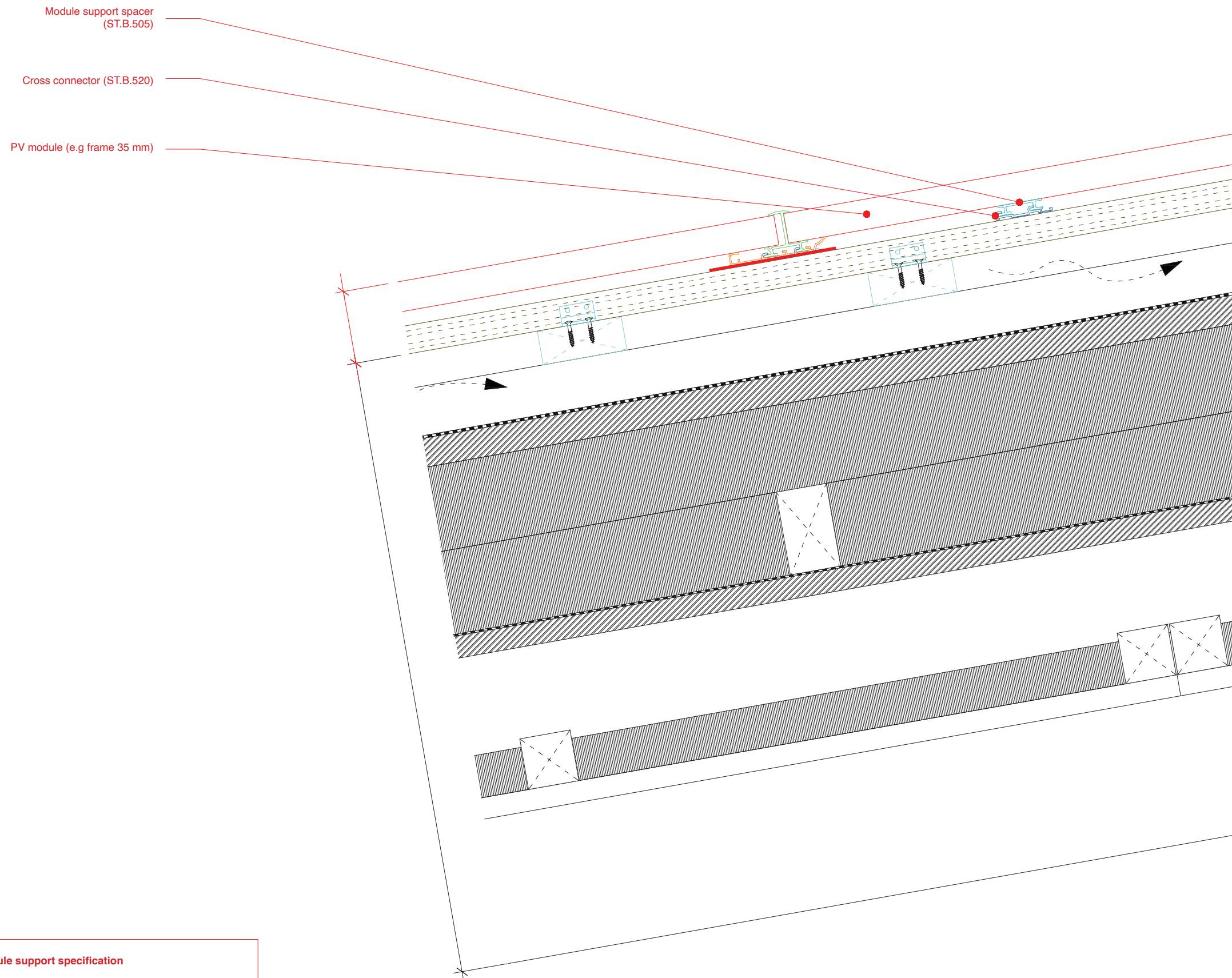
The photovoltaic module must be capable of withstanding the specified loads when installed in insertion systems.
 Solarteam AG/SolarStand accepts no liability for damage to the photovoltaic module.

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Vertical support bar for high loads			
	10 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created	30.11.2021 Processing date		

SolarStand® In-roof system ST.I.33

Module frame support at high loads



Possible roof superstructure:

External

- SolarStand® In-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Sub-roofing membrane for exceptional stress, temperature resistant to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling



Module support specification

Installation

- Installed centrally between two insertion rails (ST.PH.xxx) on vertical drainage (ST.PI.33-2) Module support specification

Laying type

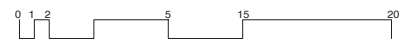
Portrait mandatory for loads > 2.4 kN/m²
Landscape mandatory for loads > 3.6 kN/m²

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

solar stand
swift smart secure

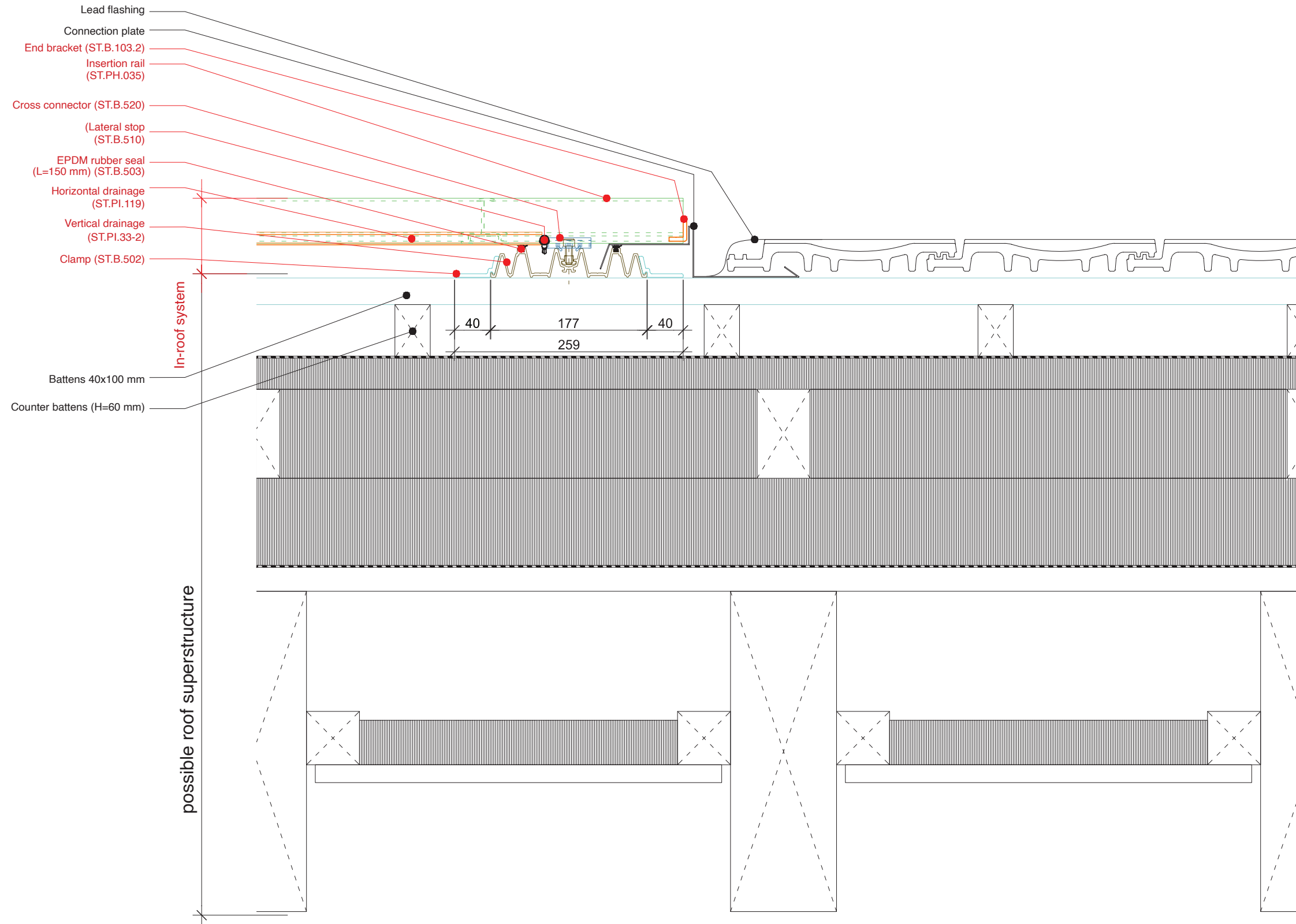
Solarteam AG
Chräi 10
8044 Udligenswil

Module frame support at high loads

11 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
04.10.17 Date created			
30.11.2021 Processing date			

SolarStand® In-roof system ST.I.33

Lateral connection

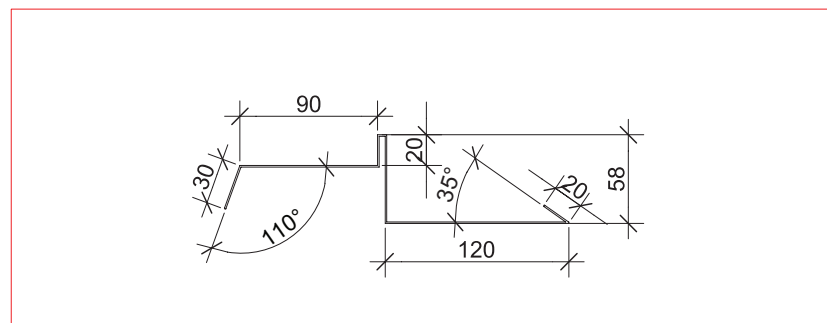




Possible roof superstructure:



External

- SolarStand® In-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Sub-roofing membrane for exceptional stress, temperature resistant to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

possible roof superstructure



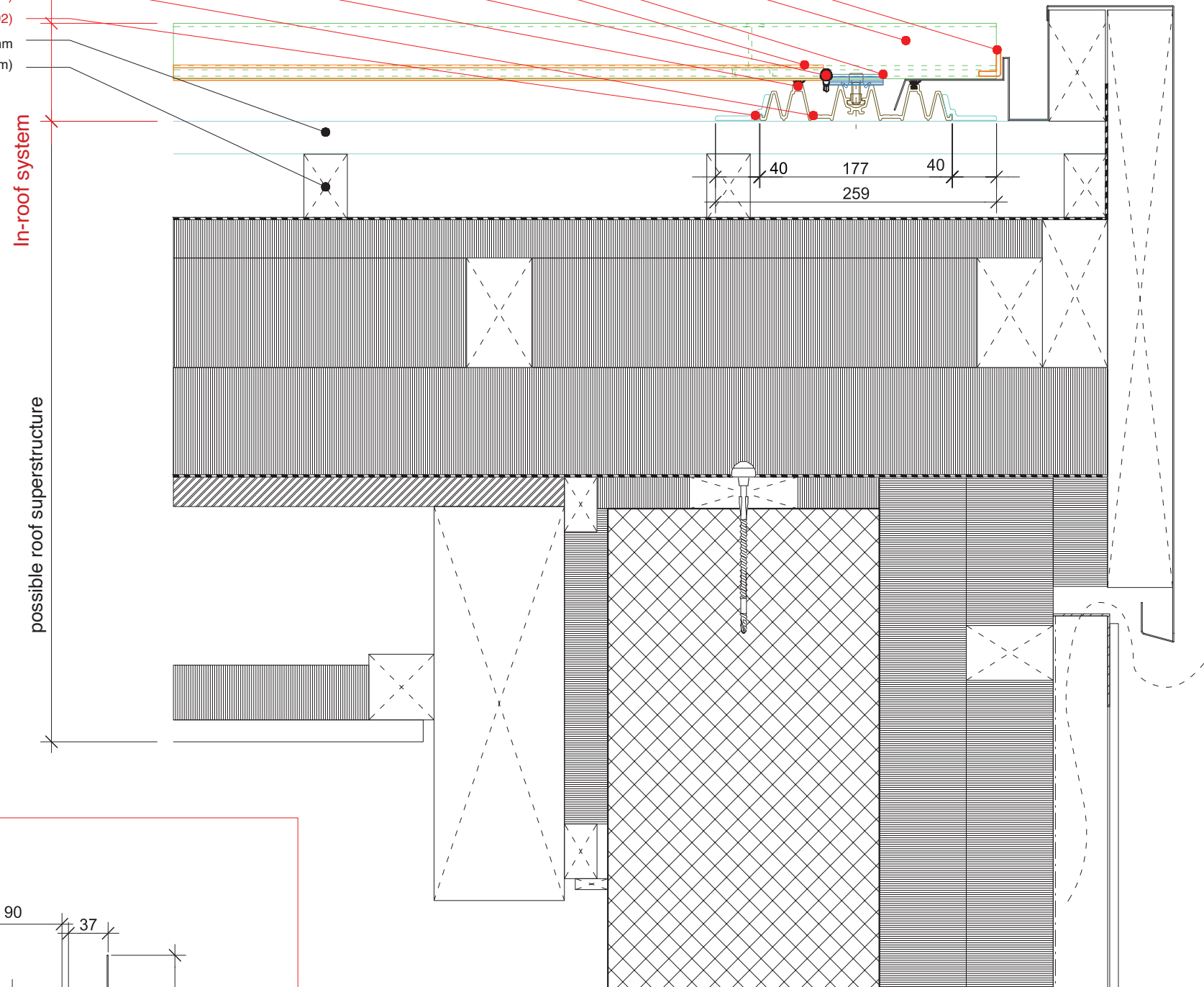
-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chri 10 6044 Udligenswil	Lateral connection		
	12 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format
04.10.17 Date created			
03.07.2023 Processing date			

SolarStand® In-roof system ST.I.33

Verge (Var. 1)

- End bracket (ST.B.103.2)
- Insertion rail (ST.PH.035)
- Cross connector (ST.B.520)
- EPDM rubber seal (L=150 mm) (ST.B.503)
- (Lateral stop (ST.B.510)
- Horizontal drainage (ST.PI.119)
- Vertical drainage (ST.PI.33-2)
- Clamp (ST.B.502)
- Battens 40x100 mm
- Counter battens (H=60 mm)



Possible roof superstructure:

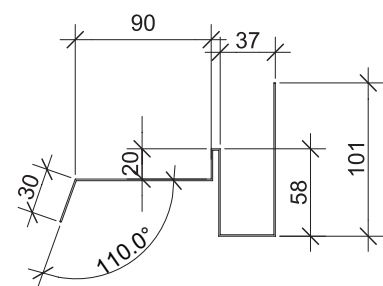
External



- SolarStand® In-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Sub-roofing membrane for exceptional stress, temperature resistant to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling



Possible façade structure

External

- Eternit cladding, large-format panels, panel type acc. to arch.
- Rear ventilation/battens
- Wind paper
- Mineral fibre, $\lambda D = 0.033$ W/mK (e.g. Flumroc Type 3)/ counter-battening
- Mineral fibre, $\lambda D = 0.035$ W/mK (e.g. Flumroc Type 1)/ battening
- Concrete wall

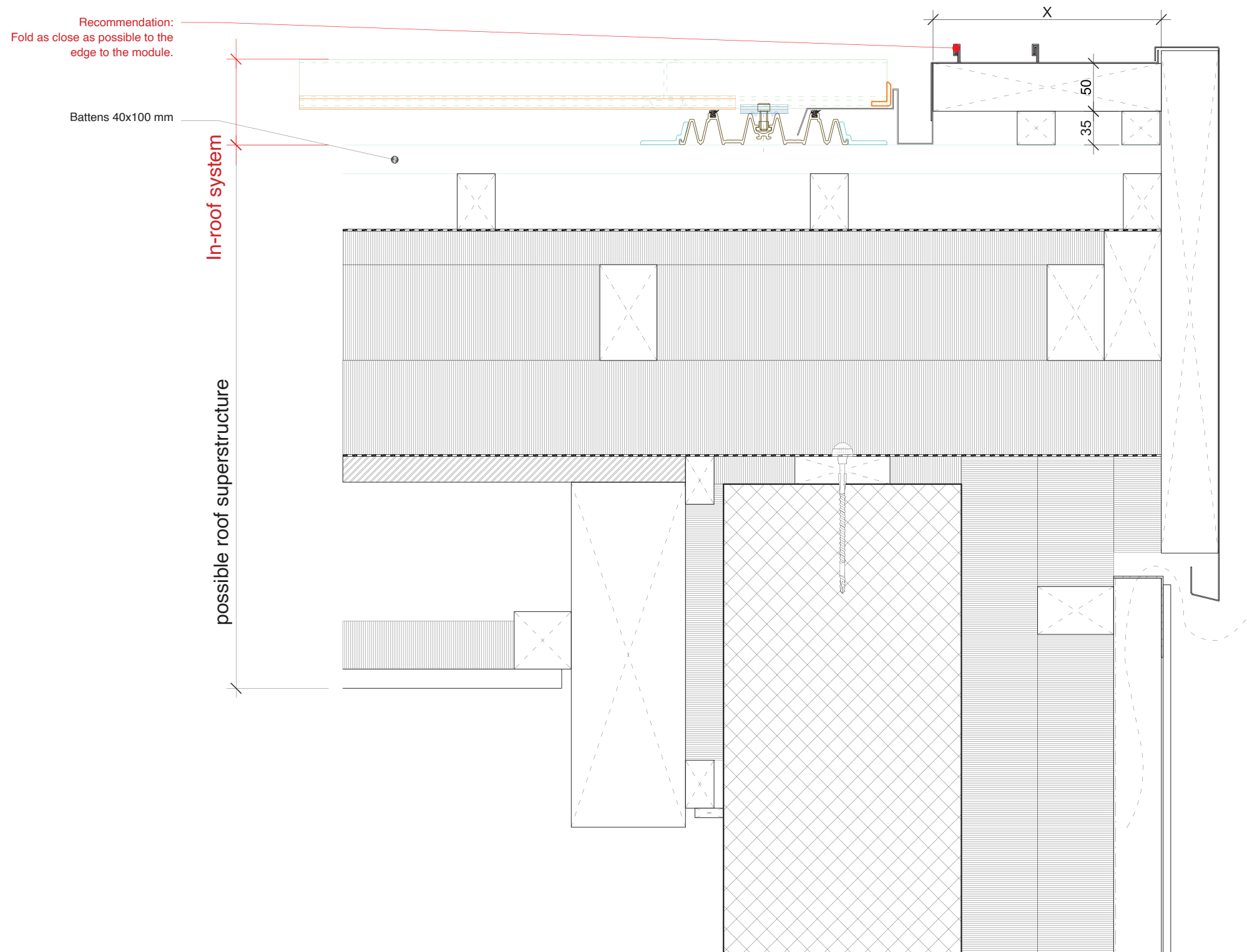


-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chrái 10 6044 Udligenswil	Verge (Var. 1)			
	13 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:5 Scale
	04.10.17 Date created			
	03.07.2023 Processing date			

SolarStand® In-roof system ST.I.33



Verge (Var. 2)





Possible roof superstructure

External

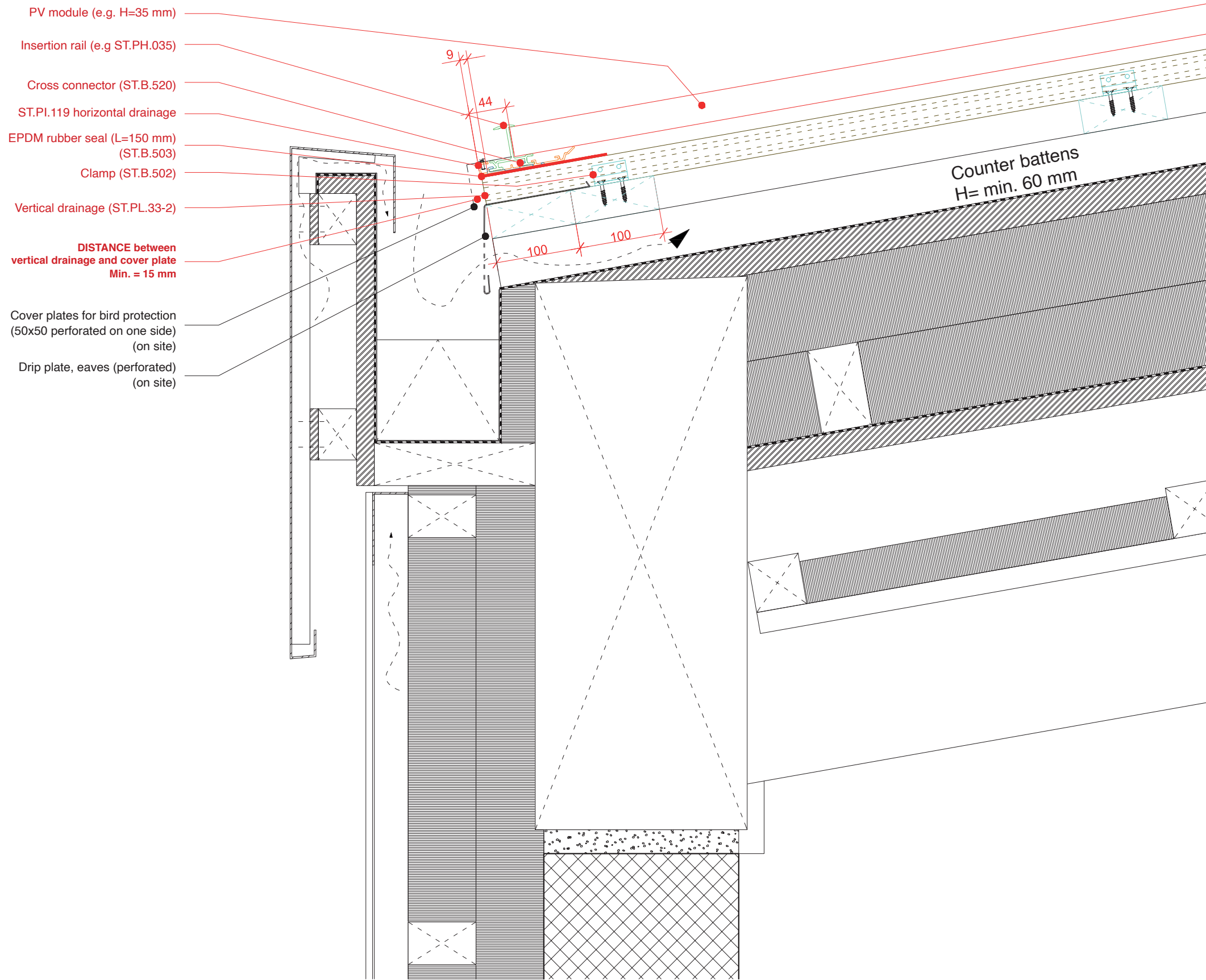
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure	Verge (Var. 2)		
	14 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format
SolarTeam AG Chräi 10 6044 Udligenswil	04.10.17 Date created		
	03.07.23 Processing date		

SolarStand® In-roof system ST.I.33



Eaves connection





Possible roof superstructure

External

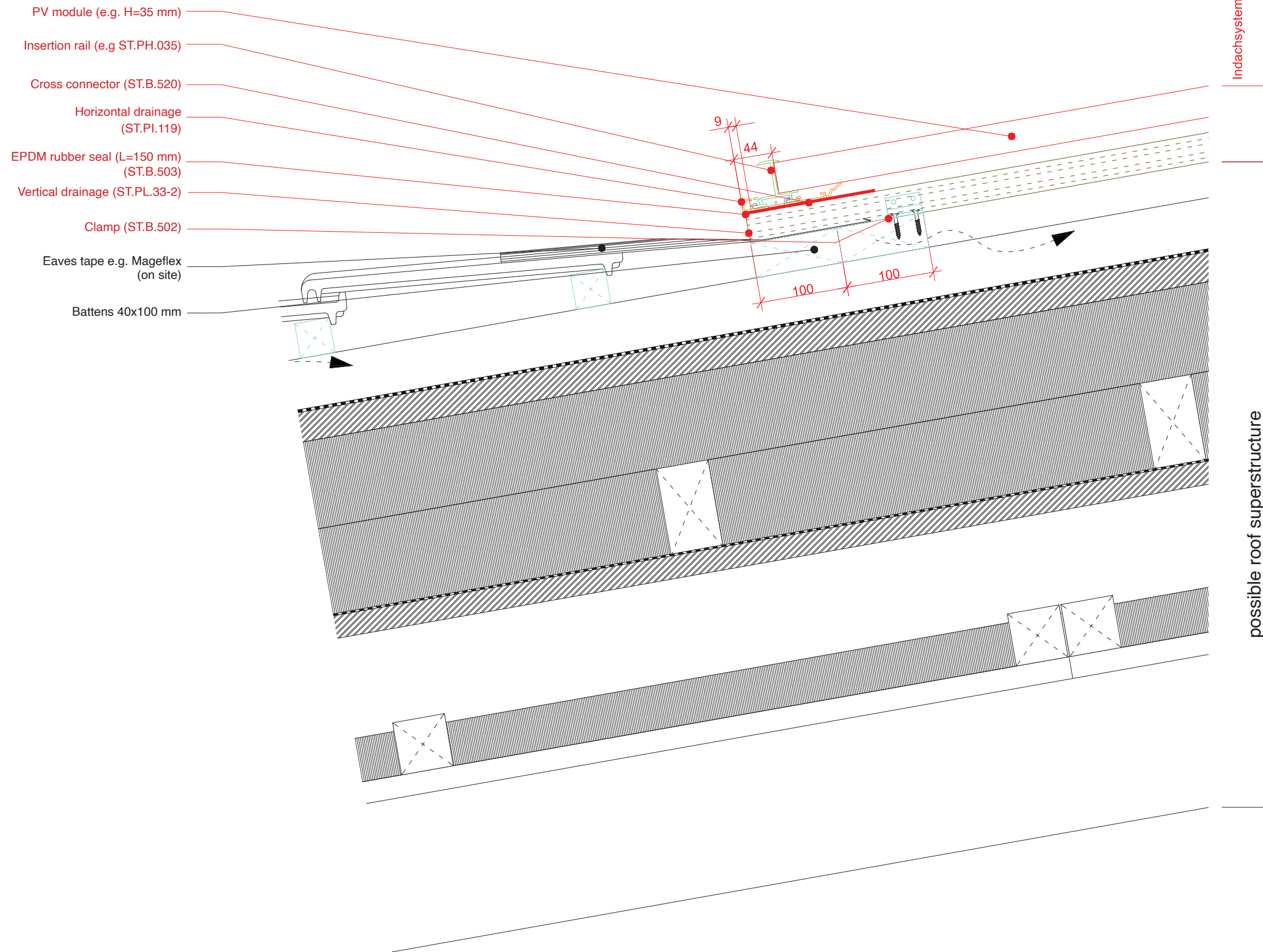
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chri 10 6044 Udligenswil	Eaves connection			
	15 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:5 Scale
	04.10.17 Date created			
03.07.23 Processing date				

SolarStand® In-roof system ST.I.33



Tile connection, bottom





Possible roof superstructure

External

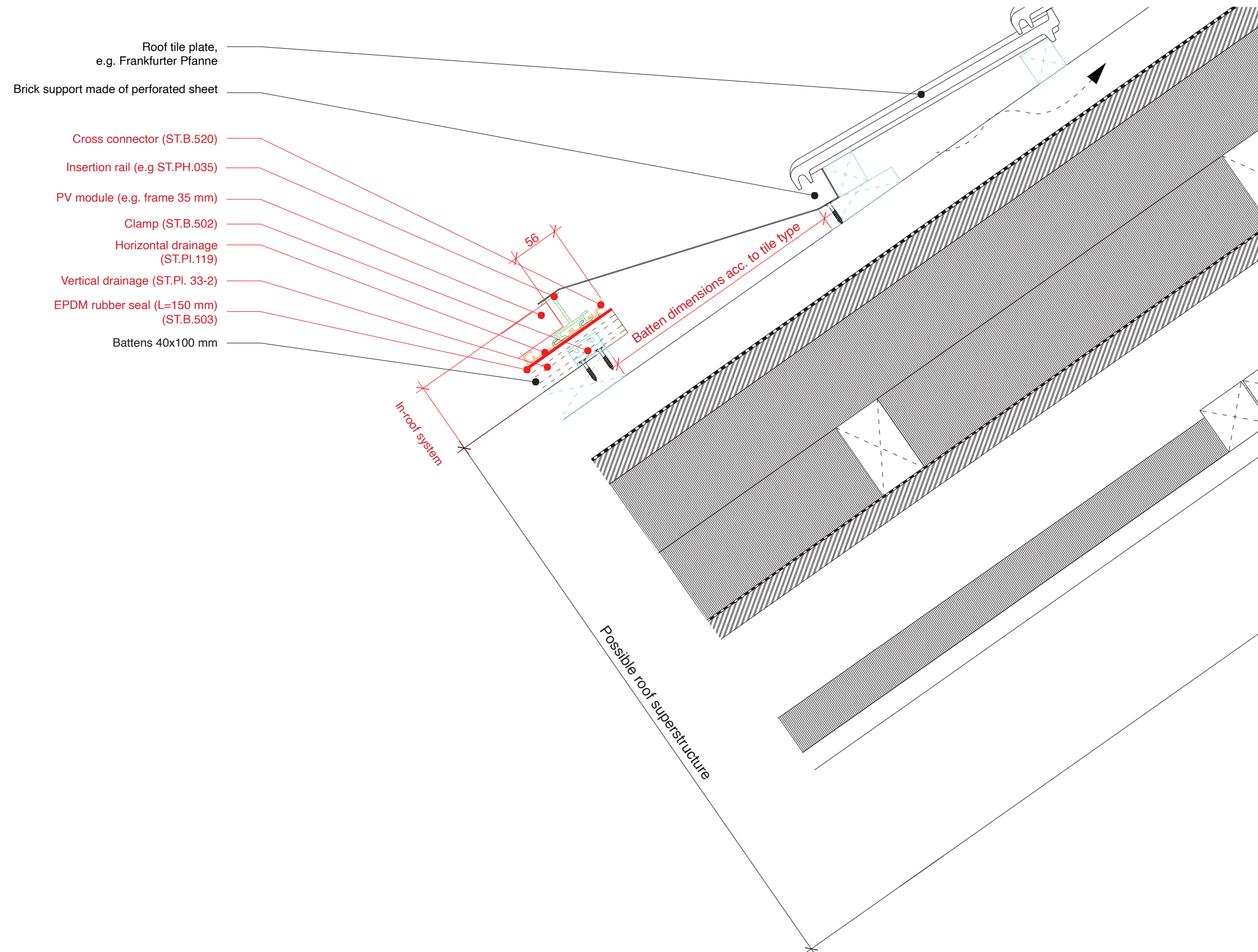
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chrál 10 6044 Udligenswil	Eaves connection			
	16 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:5 Scale
	04.10.17 Date created	0 1 2 5 15 20		
03.07.23 Processing date				

In-roof system SolarStand® ST.I.33



Tile connection at the top (> 35°) / ventilation via ridge





Possible roof superstructure

External

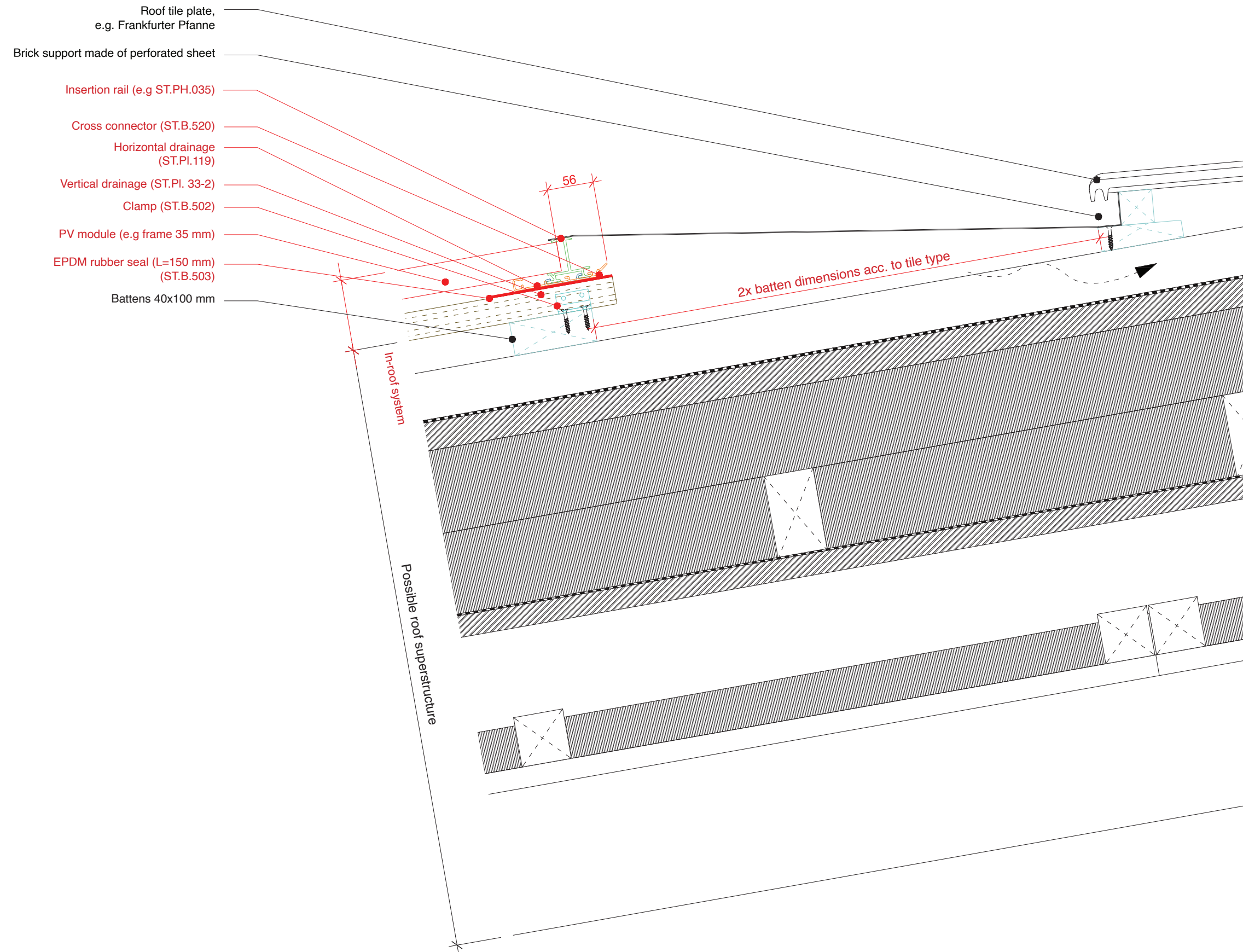
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the in-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chrai 10 6044 Udligenswil	Tile connection at top above 35°			
	17 Plan number	In-roof system SolarStand ST.I.33.vwx CAD file	A3 Plan format	1:5 Scale
	04.10.17 Date created			
03.07.23 Processing date				

In-roof system SolarStand® ST.I.33



Tile connection at the top (<math><35^\circ</math>) / ventilation via ridge





Possible roof superstructure

External

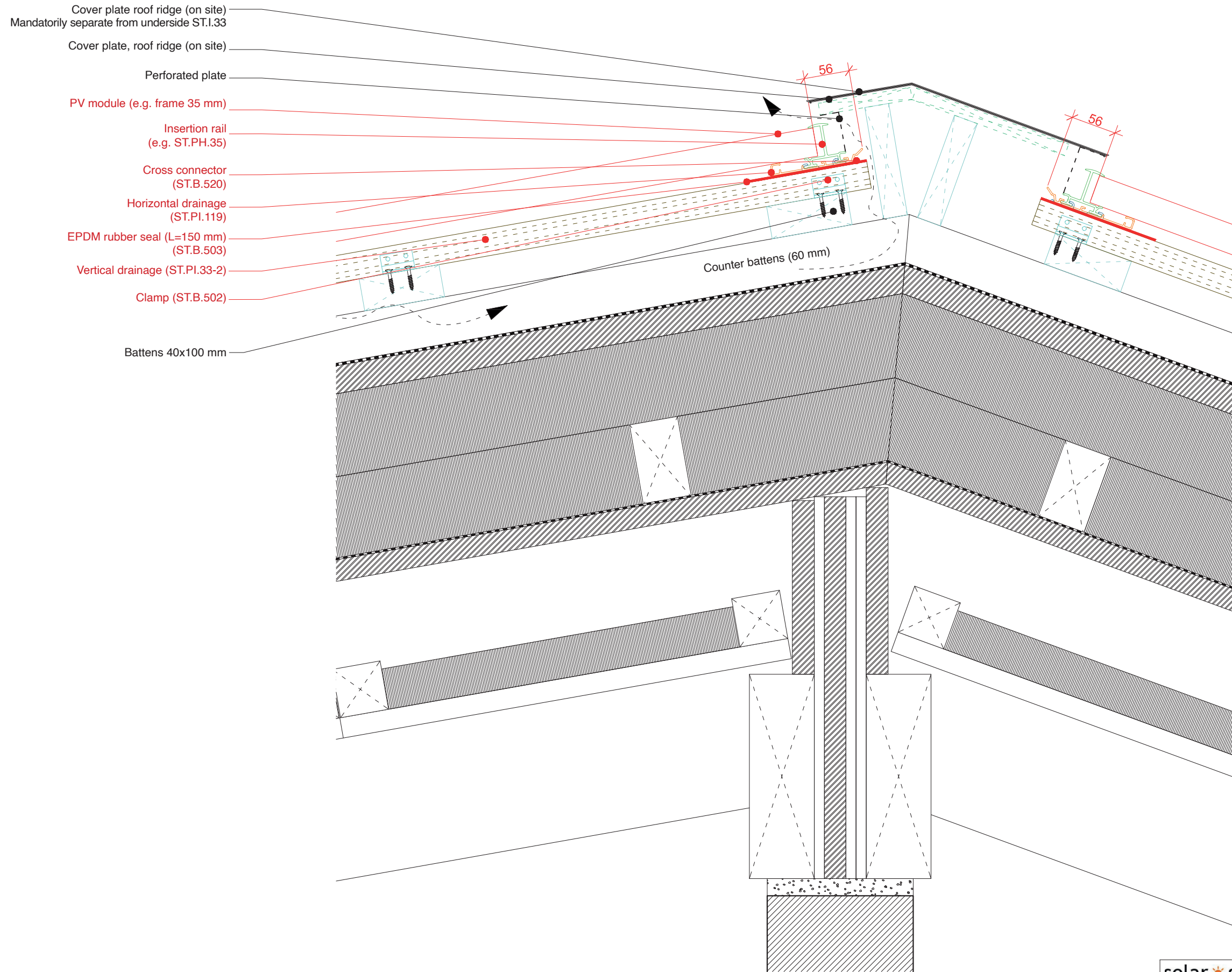
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isoroof)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the in-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chriai 10 6044 Udligenswil	Tile connection at top above 35°			
	18 Plan number	In-roof system SolarStand ST.I.33.vwx CAD file	A3 Plan format	1:5 Scale
	04.10.17 Date created			
03.07.23 Processing date				

SolarStand® In-roof system ST.I.33

Roof ridge connection (Var. 1)





Possible roof superstructure

External

- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

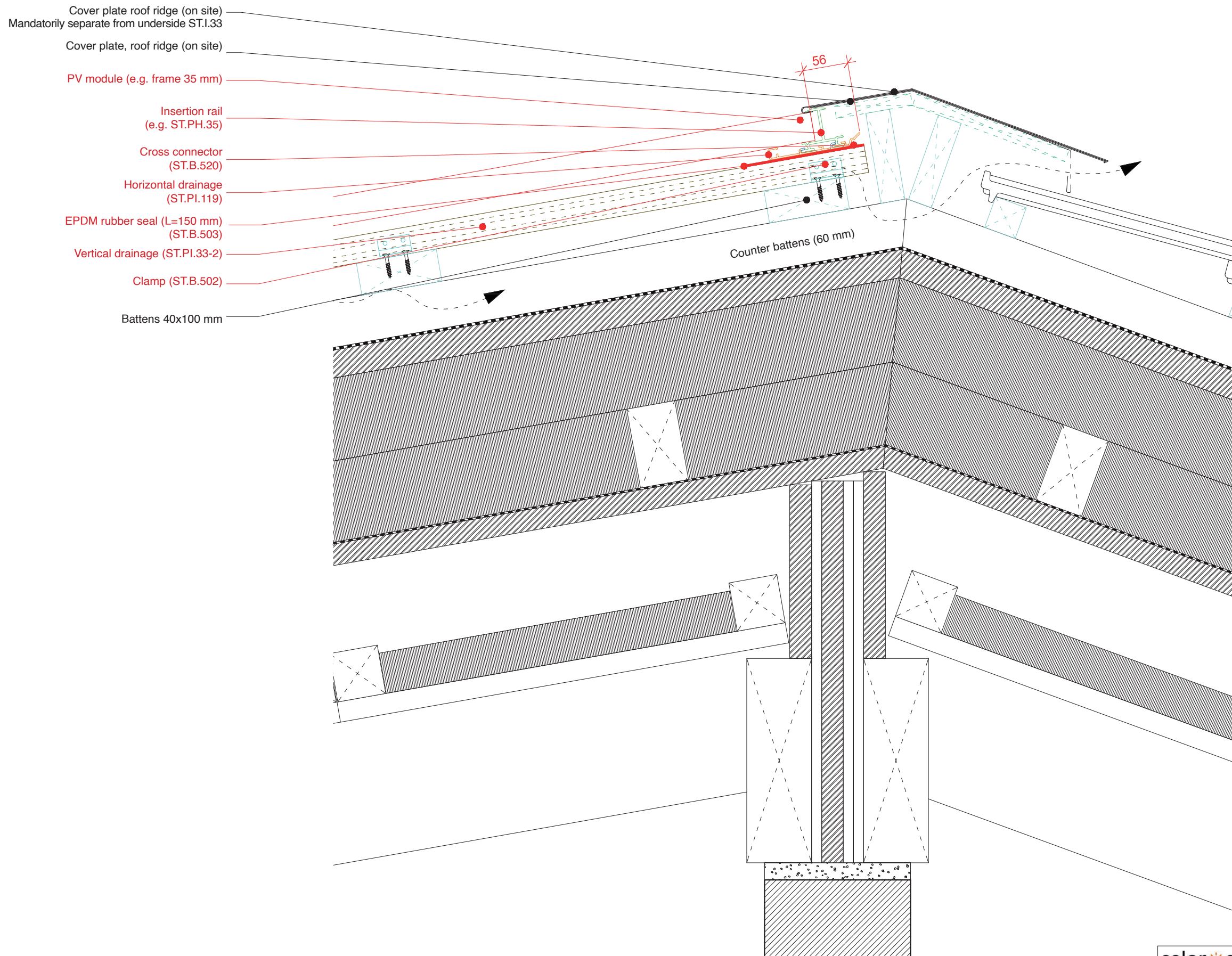
 Elements and specifications of the In-roof system

 On-site elements and superstructures

 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Roof ridge connection (Var. 1)			
	19 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:5 Scale
	04.10.17 Date created			
	03.07.23 Processing date			

SolarStand® In-roof system ST.I.33



Roof ridge connection (Var. 2)





Possible roof superstructure

External

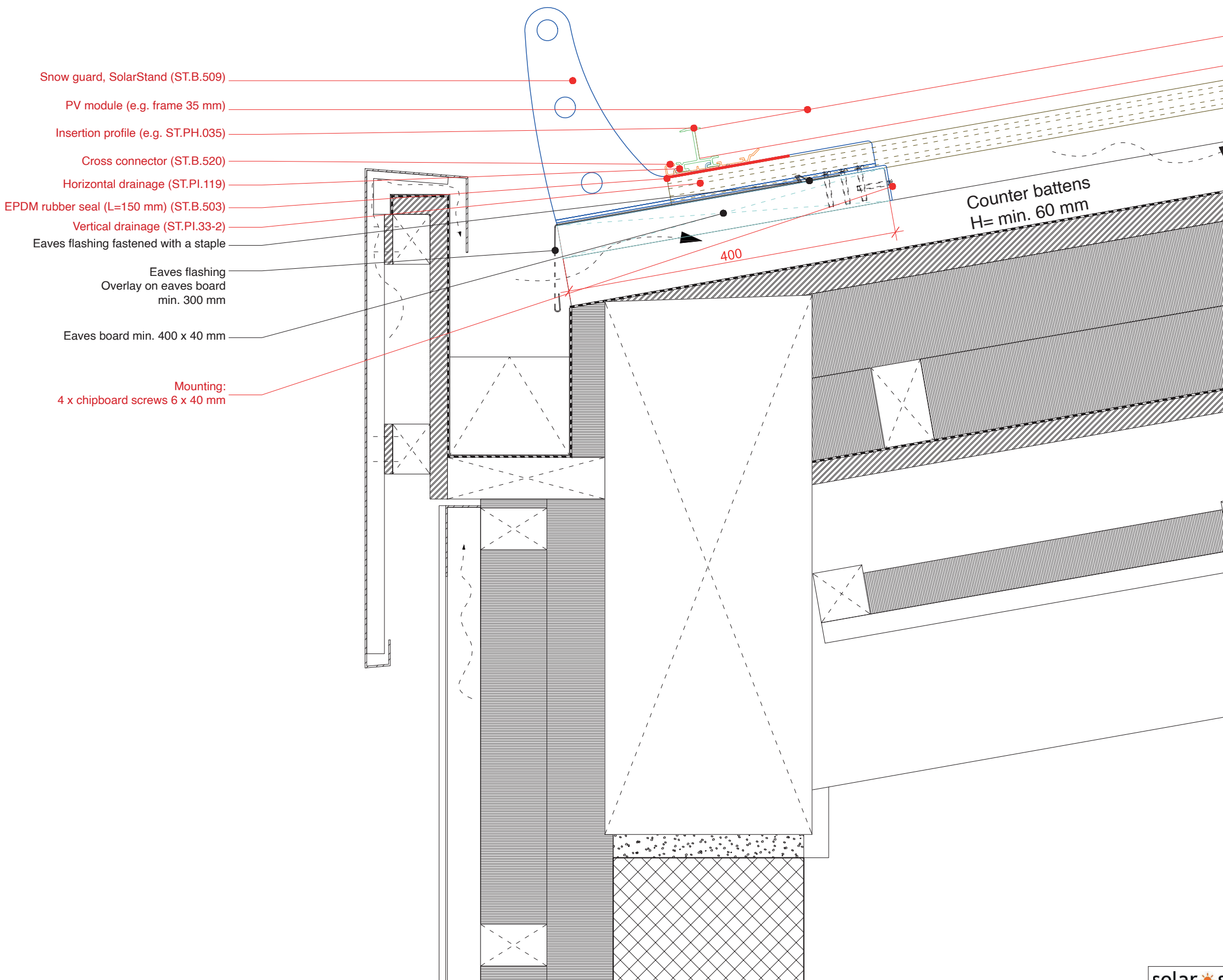
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isorof)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Roof ridge connection (Var. 2)			
	20 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:5 Scale
	04.10.17 Date created	03.07.23 Processing date		

SolarStand® In-roof system ST.I.33

Snow guard for 3 pipes 1/2° for eaves



- Snow guard, SolarStand (ST.B.509)
- PV module (e.g. frame 35 mm)
- Insertion profile (e.g. ST.PH.035)
- Cross connector (ST.B.520)
- Horizontal drainage (ST.PI.119)
- EPDM rubber seal (L=150 mm) (ST.B.503)
- Vertical drainage (ST.PI.33-2)
- Eaves flashing fastened with a staple
- Eaves flashing
Overlay on eaves board
min. 300 mm
- Eaves board min. 400 x 40 mm
- Mounting:
4 x chipboard screws 6 x 40 mm

Counter battens
H= min. 60 mm

400

Possible roof superstructure

- External
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
 - Battens
 - Counter battens
 - Under-roof membrane, temperature resistant up to 80°c
 - Soft fibreboard (e.g. Isoroof)
 - Cross battens 2x 6/10 cm
 - Vapour barrier, sd > 20 m
 - Three-layer board (press-bonded), formaldehyde-free
 - Ribs visible 12/32 cm, formaldehyde-free
 - Acoustics with mineral wool (formaldehyde-free)
 - Heraklith panel acoustic ceiling

- Elements and specifications of the In-roof system
- On-site elements and superstructures

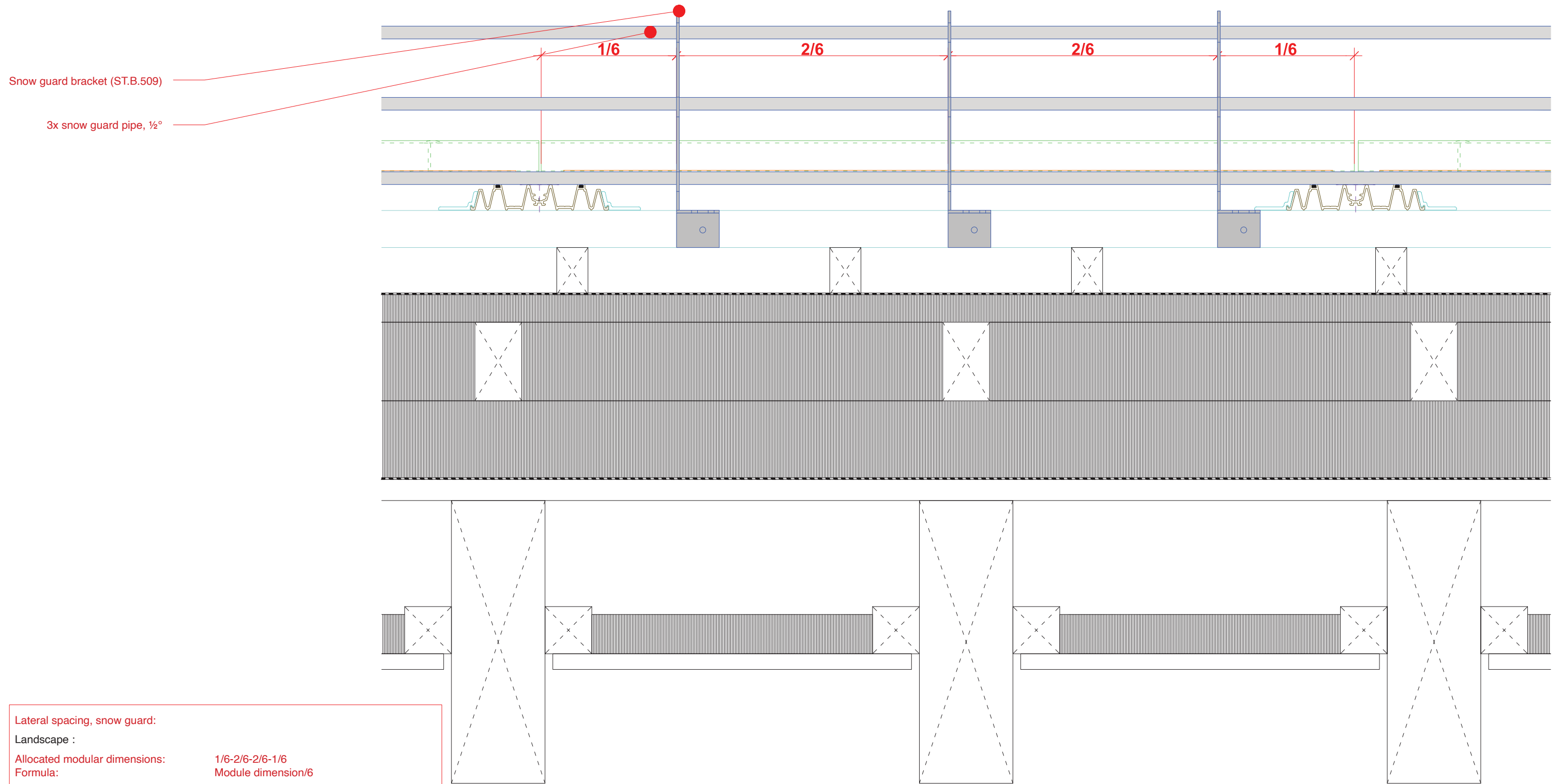
swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Snow guard for 3 pipes			
	21 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:5 Scale
	04.10.17 Date created			
03.07.23 Processing date				

SolarStand® In-roof system ST.I.33

Snow guard, 3 pipes

Max. load, 7 kN/rm



Landscape example:





Lateral spacing, snow guard:
 Landscape :
 Allocated modular dimensions: 1/6-2/6-2/6-1/6
 Formula: Module dimension/6
 Portrait:
 Allocated modular dimensions: 1/4-2/4-1/4
 Formula: Module dimension/4
Max. lateral spacing, snow guard: 65 cm

Planning specification / Disclaimer:

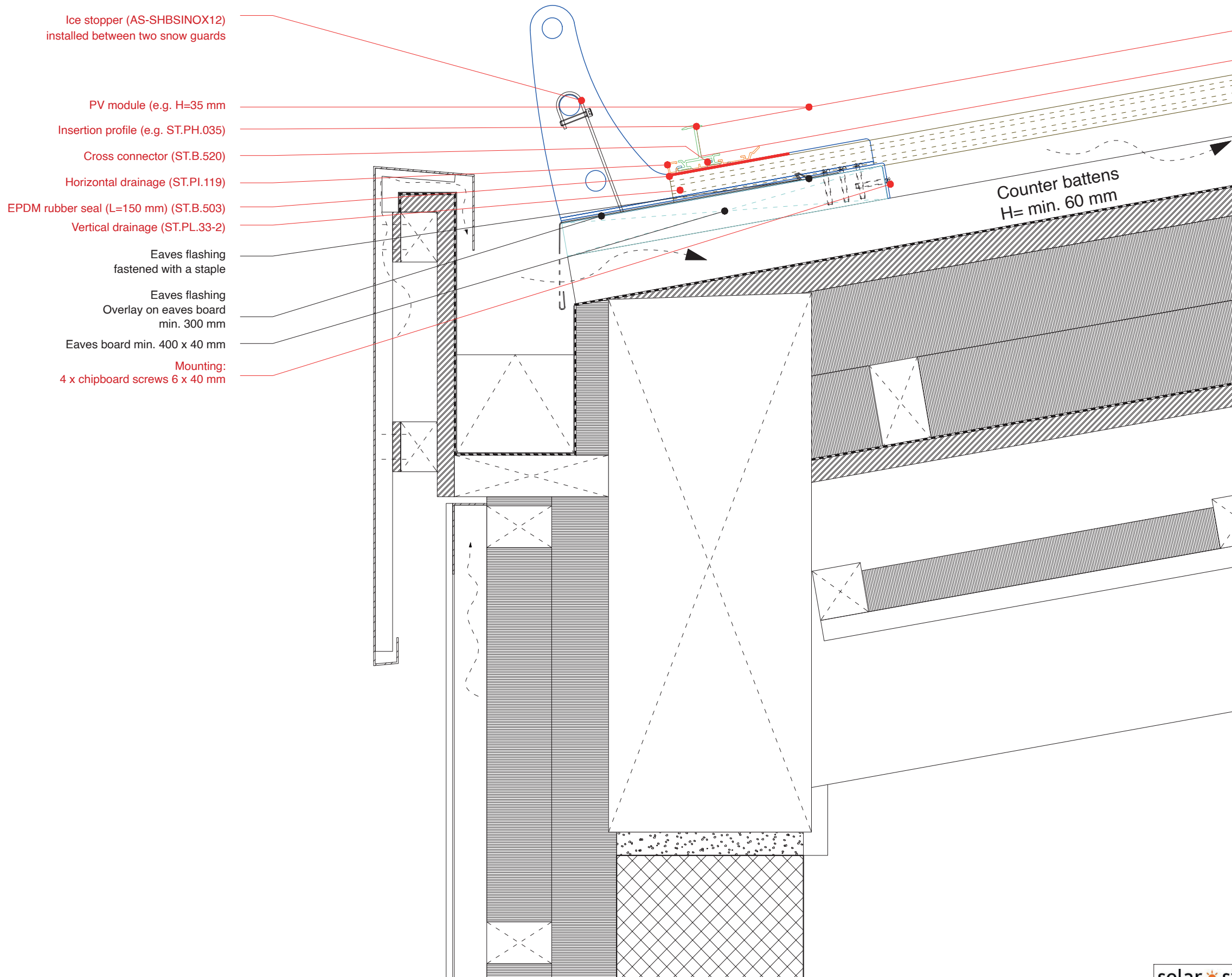
The photovoltaic module must be capable of withstanding the specified loads when installed in insertion systems.
 Solarteam AG/SolarStand accepts no liability for damage to the photovoltaic module.

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Snow guard, 3 pipes			
	21 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created	30.11.2021 Processing date		

SolarStand® In-roof system ST.I.33



Snow guard for 3 pipes (1/2°) for eaves with ice stopper





- Ice stopper (AS-SHBSINOX12)
installed between two snow guards
- PV module (e.g. H=35 mm)
- Insertion profile (e.g. ST.PH.035)
- Cross connector (ST.B.520)
- Horizontal drainage (ST.PI.119)
- EPDM rubber seal (L=150 mm) (ST.B.503)
- Vertical drainage (ST.PL.33-2)
- Eaves flashing
fastened with a staple
- Eaves flashing
Overlay on eaves board
min. 300 mm
- Eaves board min. 400 x 40 mm
- Mounting:
4 x chipboard screws 6 x 40 mm

Possible roof superstructure

- External
- SolarStand® in-roof system ST.I.33
 - Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
 - Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
 - Battens
 - Counter battens
 - Under-roof membrane, temperature resistant up to 80°C
 - Soft fibreboard (e.g. Isorooft)
 - Cross battens 2x 6/10 cm
 - Vapour barrier, sd > 20 m
 - Three-layer board (press-bonded), formaldehyde-free
 - Ribs visible 12/32 cm, formaldehyde-free
 - Acoustics with mineral wool (formaldehyde-free)
 - Heraklith panel acoustic ceiling

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

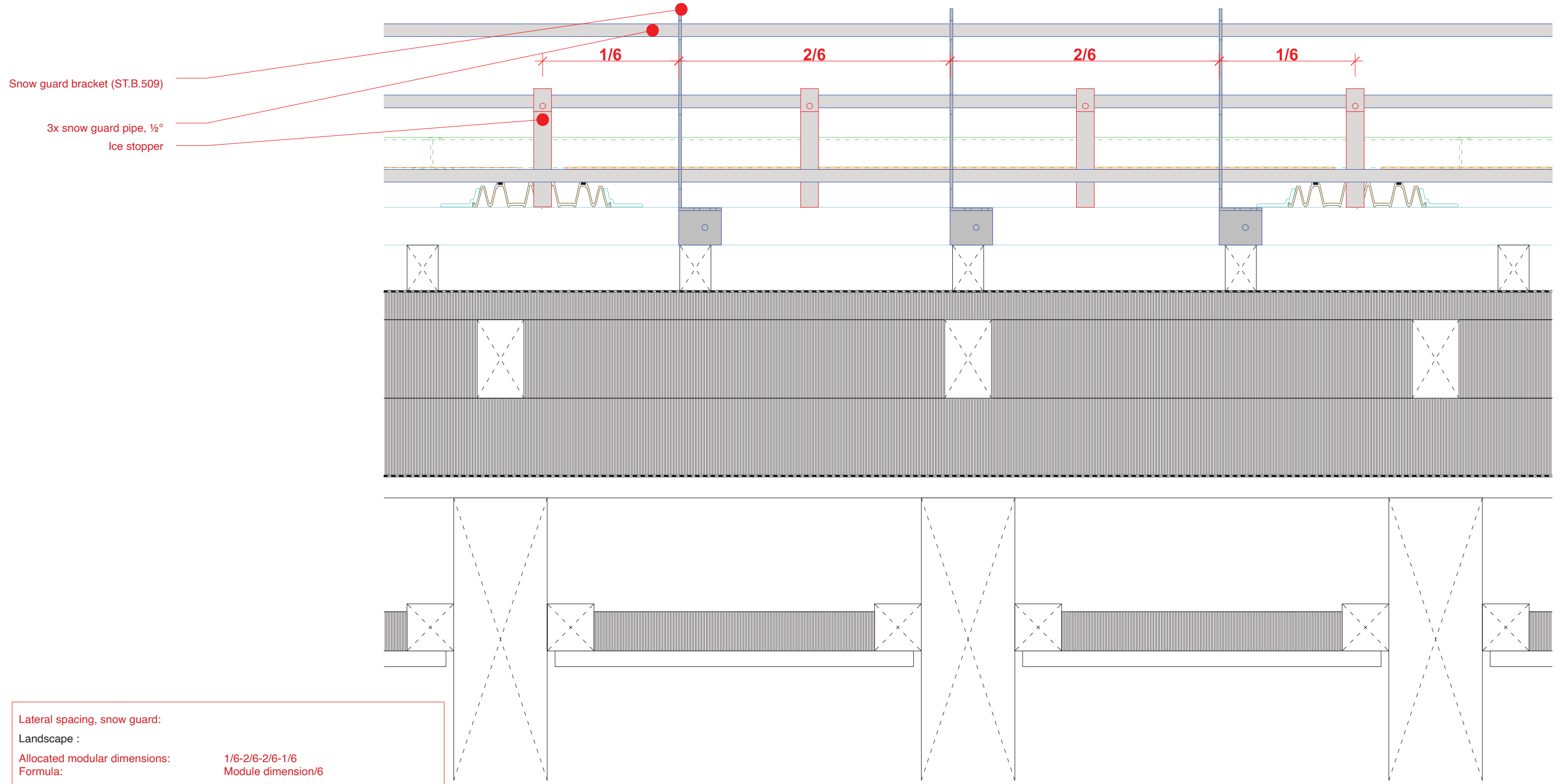
 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Snow guard for 3 pipes - with ice stopper		
	23 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format
04.10.17 Date created			
03.07.23 Processing date			

SolarStand® In-roof system ST.I.33

Snow guard for 3 pipes - with ice stopper



Max. load 7 kN/rm



Landscape example:



Lateral spacing, snow guard:
 Landscape :
 Allocated modular dimensions: 1/6-2/6-2/6-1/6
 Formula: Module dimension/6
 Portrait:
 Allocated modular dimensions: 1/4-2/4-1/4
 Formula: Module dimension/4
Max. lateral spacing, snow guard: 65 cm

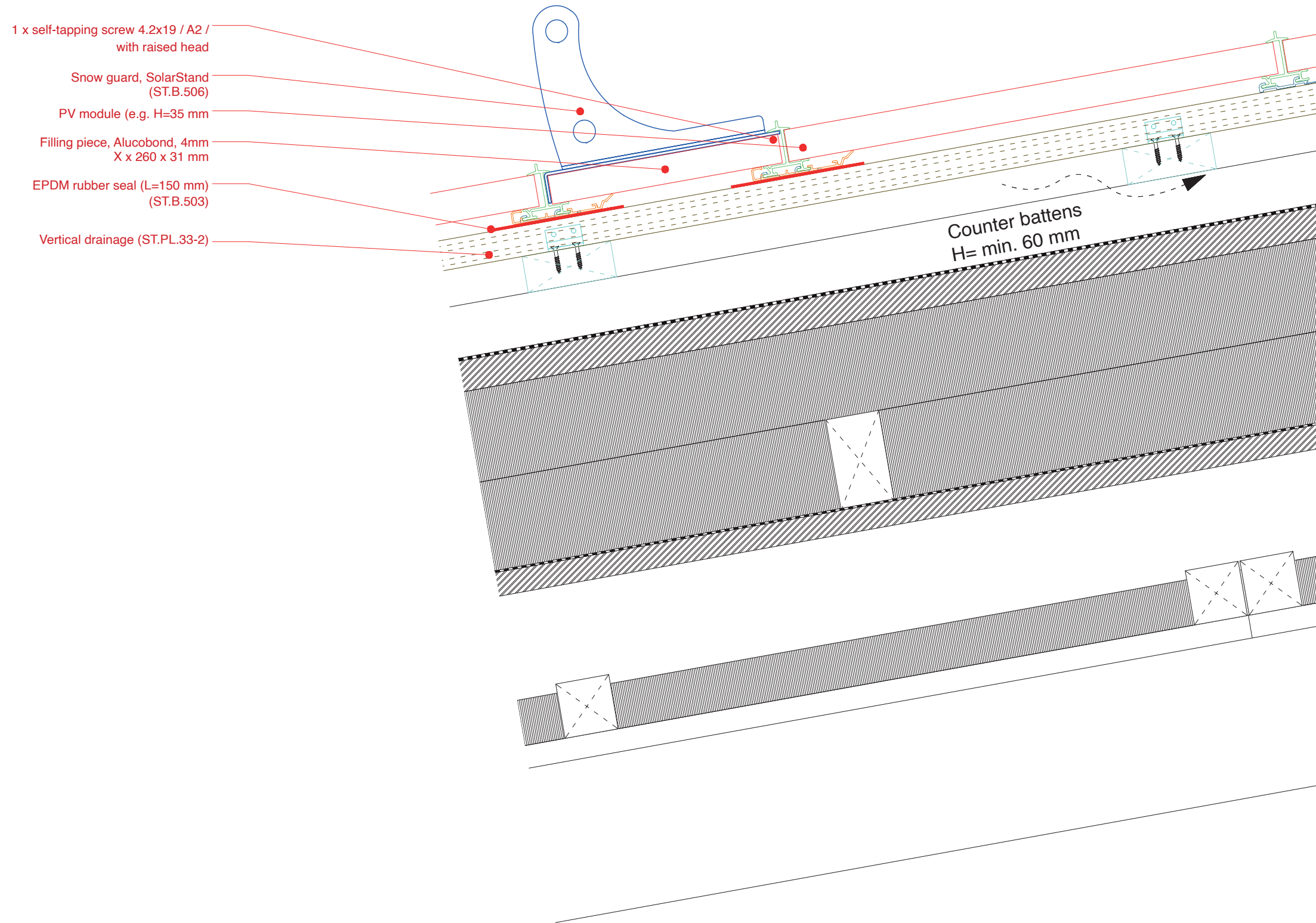
Planning specification / Disclaimer:
 The photovoltaic module must be capable of withstanding the specified loads when installed in insertion systems.
 Solarteam AG/SolarStand accepts no liability for damage to the photovoltaic module.

 Elements and specifications of the In-roof system
 On-site elements and superstructures

 swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Snow guard for 3 pipes - with ice stopper			
	23 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created			
30.11.2021 Processing date				

SolarStand® In-roof system ST.I.33



Snow guard, for 2 pipes (1/2°) at module glass level




Possible roof superstructure

External

- SolarStand® in-roof system ST.I.33
- Horizontal drainage (ST.PI.119/ST.PH.035 profile + components)
- Vertical drainage (ST.PI.33-2 profile) (H=50 mm up to underside PV module)
- Battens
- Counter battens
- Under-roof membrane, temperature resistant up to 80°C
- Soft fibreboard (e.g. Isorooft)
- Cross battens 2x 6/10 cm
- Vapour barrier, sd > 20 m
- Three-layer board (press-bonded), formaldehyde-free
- Ribs visible 12/32 cm, formaldehyde-free
- Acoustics with mineral wool (formaldehyde-free)
- Heraklith panel acoustic ceiling

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

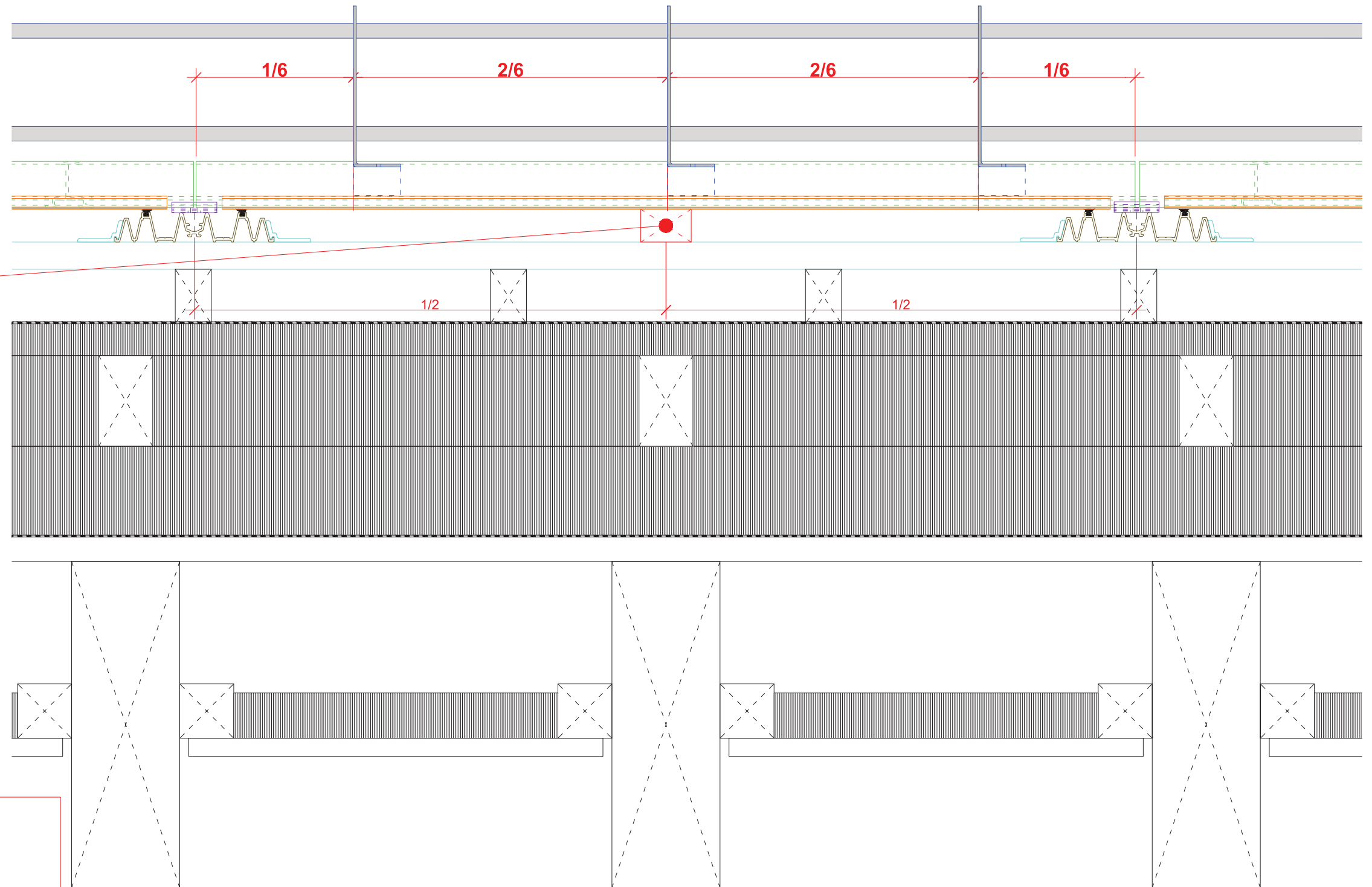
 swift smart secure	Snow guard, bracket for 2 pipes		
	24 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format
Solarteam AG Chräi 10 6044 Udligenswil	04.10.17 Date created	0 1 2 5 15 20	
	27.11.23 Processing date		

SolarStand® In-roof system ST.I.33

Snow guard with filling piece

Normal load (max. 4.5 kN/rm)



Landscape example:





1x support for the horizontal drainage rail with battens, 35 x 55
L= min. 1500 mm / screw connected

Lateral spacing, snow guard:
Landscape :
Allocated modular dimensions: 1/6-2/6-2/6-1/6
Formula: Module dimension/6
Portrait:
Allocated modular dimensions: 1/4-2/4-1/4
Formula: Module dimension/4
Max. lateral spacing, snow guard: 65 cm

Planning specification / Disclaimer:
The photovoltaic module must be capable of withstanding the specified loads when installed in insertion systems.
Solarteam AG/SolarStand accepts no liability for damage to the photovoltaic module.

-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

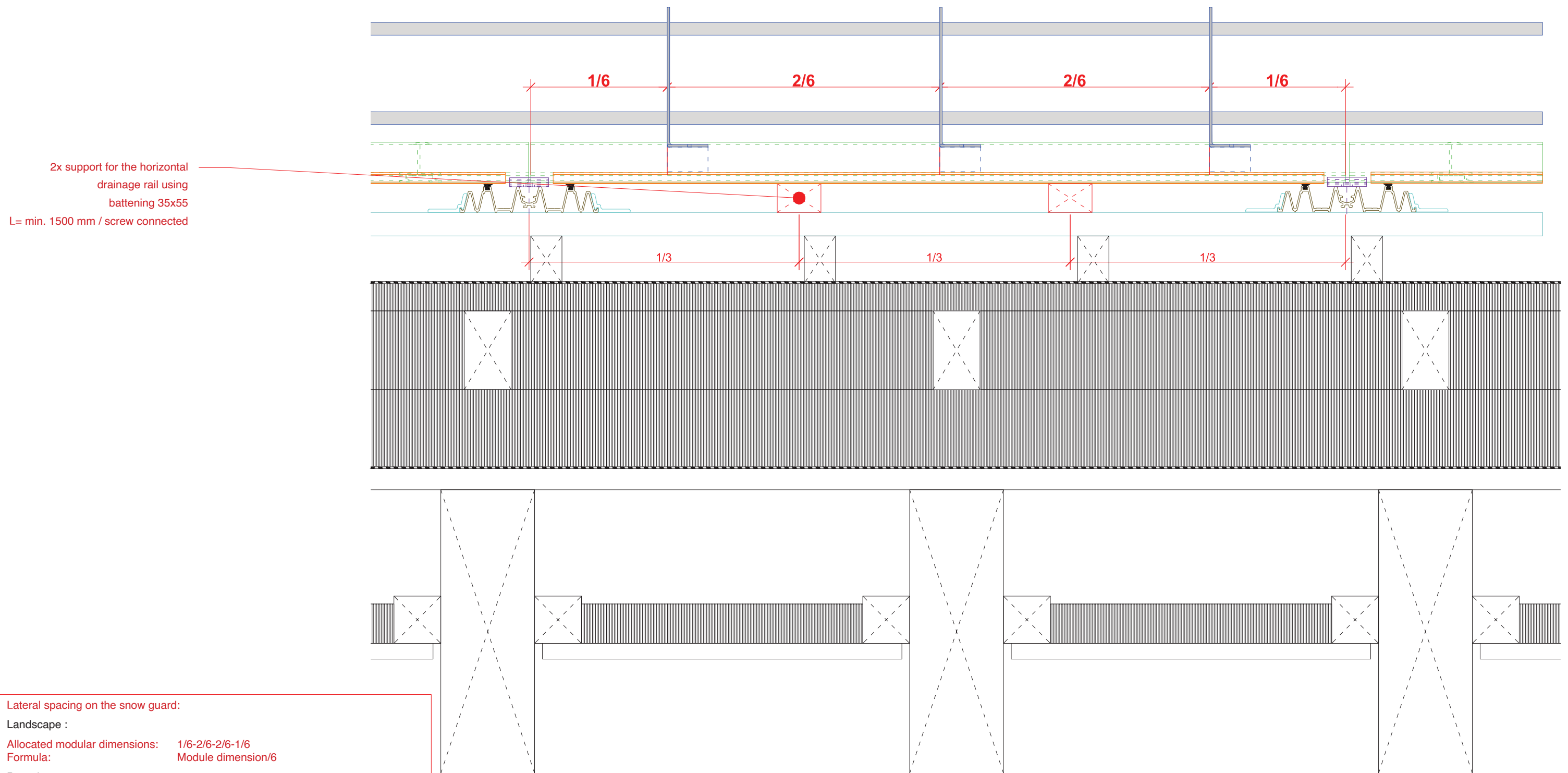
 swift smart secure Solarteam AG Chrást 10 6044 Udligenswil	Snow guard with filler piece, normal load			
	25 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	04.10.17 Date created	30.11.2021 Processing date		

In-roof system SolarStand® ST.I.33

Snow guard with filling piece



High load (max. 7 kN/rm)

Landscape example:



Lateral spacing on the snow guard:
 Landscape :
 Allocated modular dimensions: 1/6-2/6-2/6-1/6
 Formula: Module dimension/6
 Portrait:
 Allocated modular dimensions: 1/4-2/4-1/4
 Formula: Module dimension/4
Max. lateral spacing on the snow guard: 65 cm

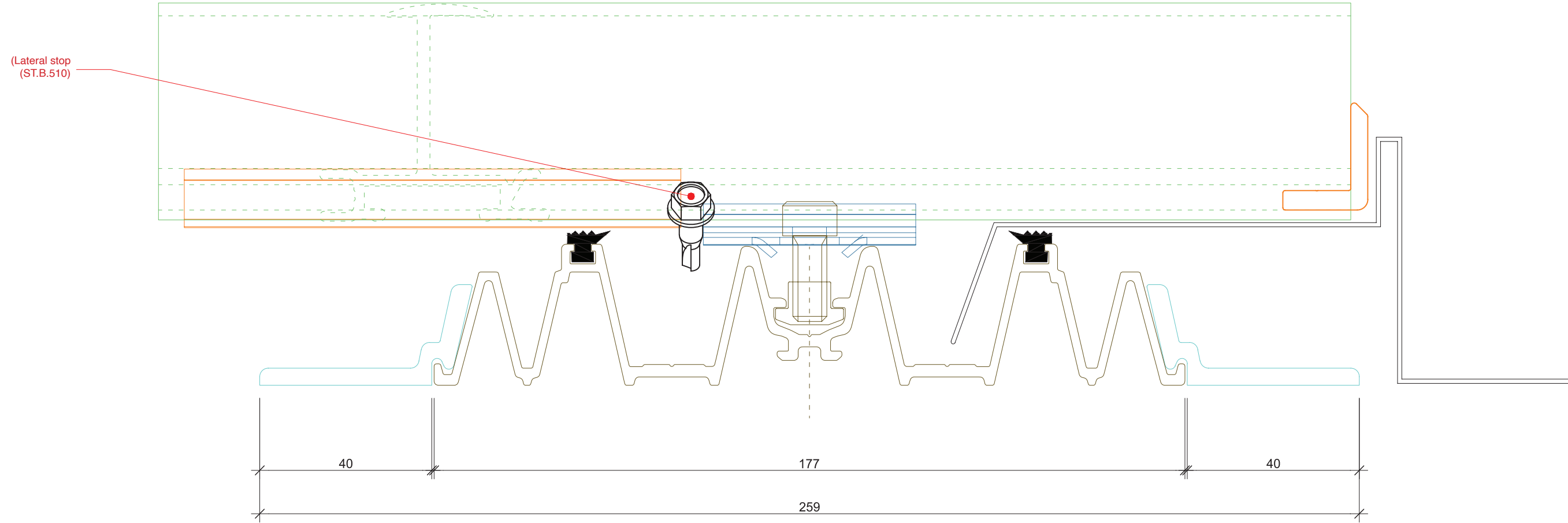
Planning specification/disclaimer:
 The photovoltaic module must be capable of withstanding the specified loads when installed in insertion systems.
 Solarteam AG/SolarStand accepts no liability for damage to the photovoltaic module.



-  Elements and specifications of the in-roof system
-  On-site elements and superstructures


solar stand swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Snow guard with filling piece, high load		
	27 Plan number	In-roof system SolarStand ST.I.33.vwx CAD file	A3 Plan format
04.10.17 Date created	0 1 2 5 10 15 20		
17.08.22 Processing date			

SolarStand® In-roof system ST.I.33

Stop insertion rail on the verge (ST.B.510)

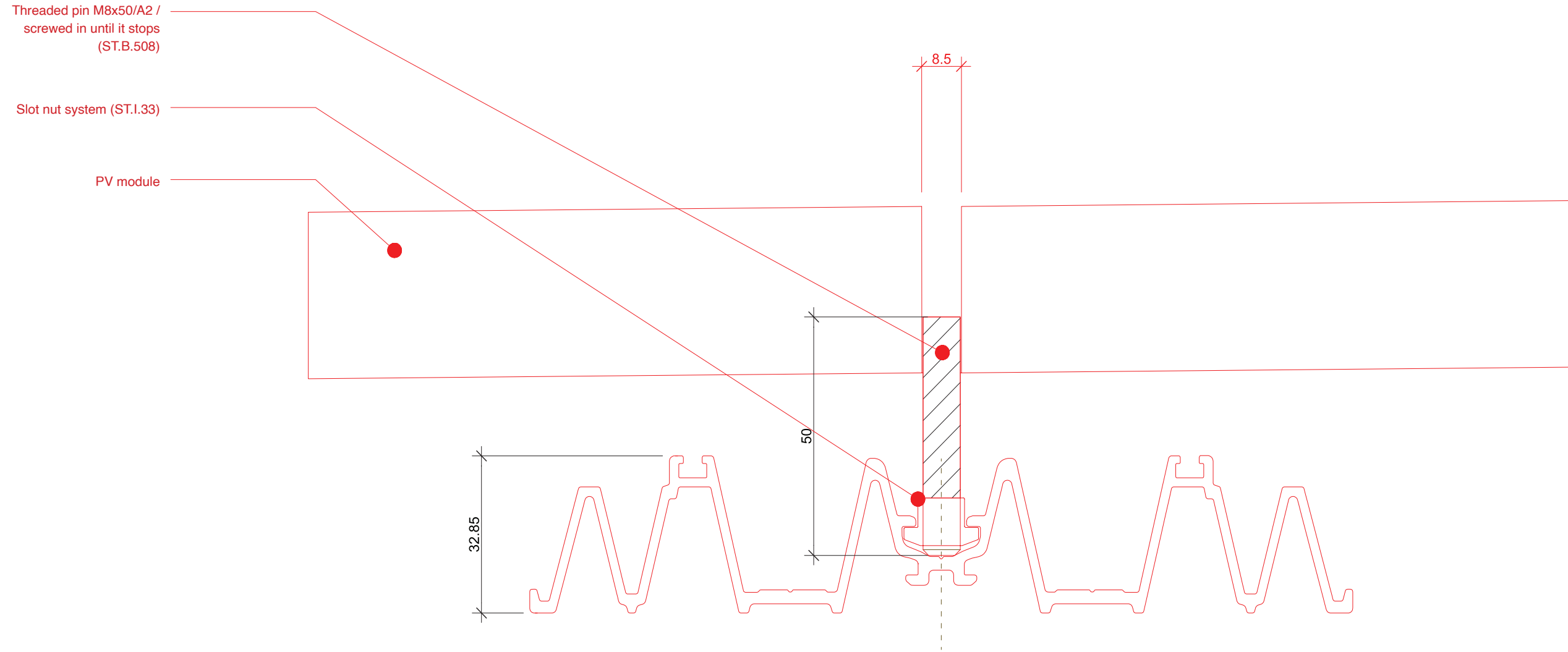


-  Elements and specifications of the In-roof system
-  On-site elements and superstructures

solar stand swift smart secure	Stop insertion rail on the verge			
	29 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
	03.07.23 Date created			
03.07.23 Processing date				
Solarteam AG Chrást 10 6044 Udligenswil				

SolarStand® In-roof system ST.I.33

Additional fixing against lateral migration



Recommendation:

Laying type	No. of threaded pins
Portrait	Between every 10th module
Landscape	Between every 7th Module

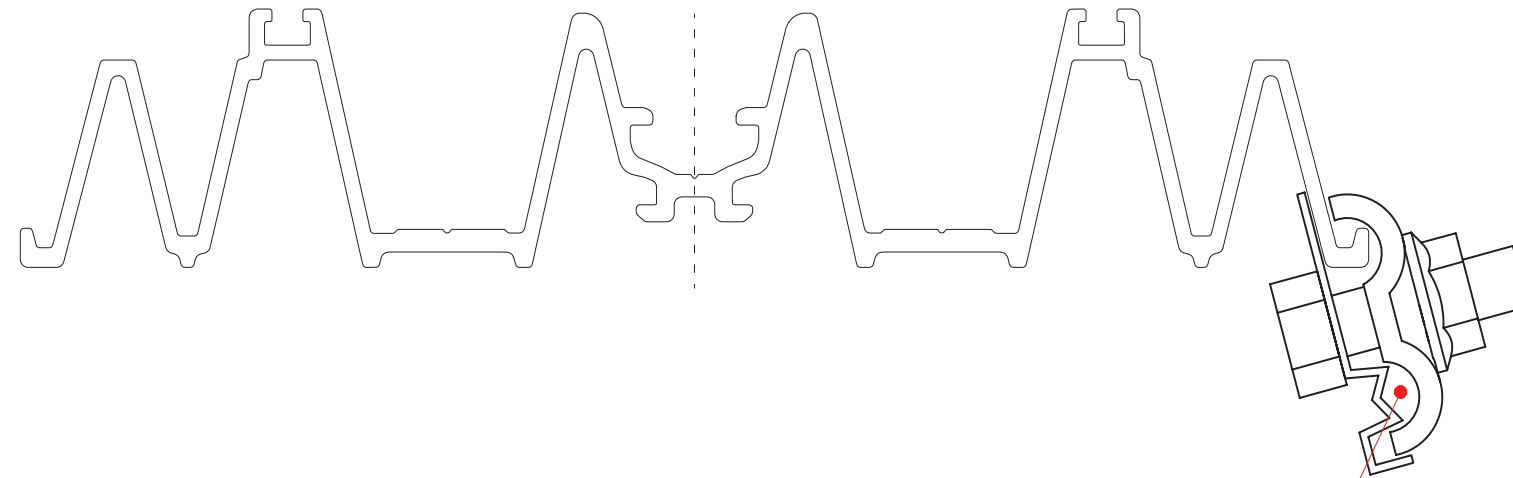
solar stand swift smart secure	Additional fixing against lateral migration			
	27 Plan number	SolarStand® In-roof system ST.I.33 CAD File	A3 Plan format	1:1 Scale
Solarteam AG Chräi 10 6044 Udligenswil	04.10.17 Date created			
	30.11.2021 Processing date			

In-roof system SolarStand® ST.I.33

Lightning protection - POT equalisation

Recommendation:

Attach to the side of the vertical drainage rail (ST.PI.33.2)



On site:
Attach the stranded wire for POT
equalisation / lightning protection to
the side of the vertical profile
(ST.PI.33-2).



For strands that are screwed to
the profile, make sure that only the
outermost profile wall is drilled.

solar stand swift smart secure Solarteam AG Chräi 10 6044 Udligenswil	Lightning protection - POT equalisation		
	30 Plan number	In-roof system SolarStand ST.I.33.vwx CAD file	A3 Plan format
	03.07.23 Date created	03.07.23 Processing date	1:1 Scale

