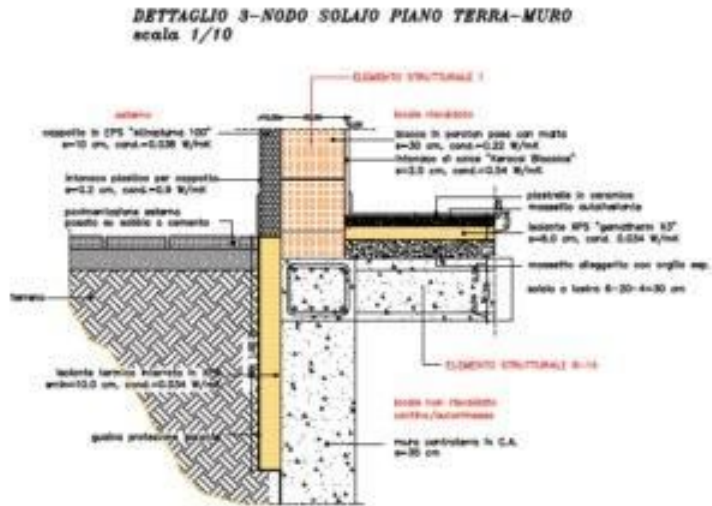
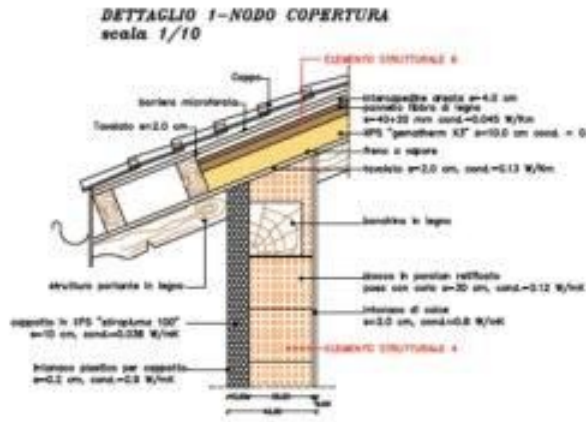


### MpA 7 Critical Nodes of building organism

- Relationship between construction and environment
- Relationship between building and land

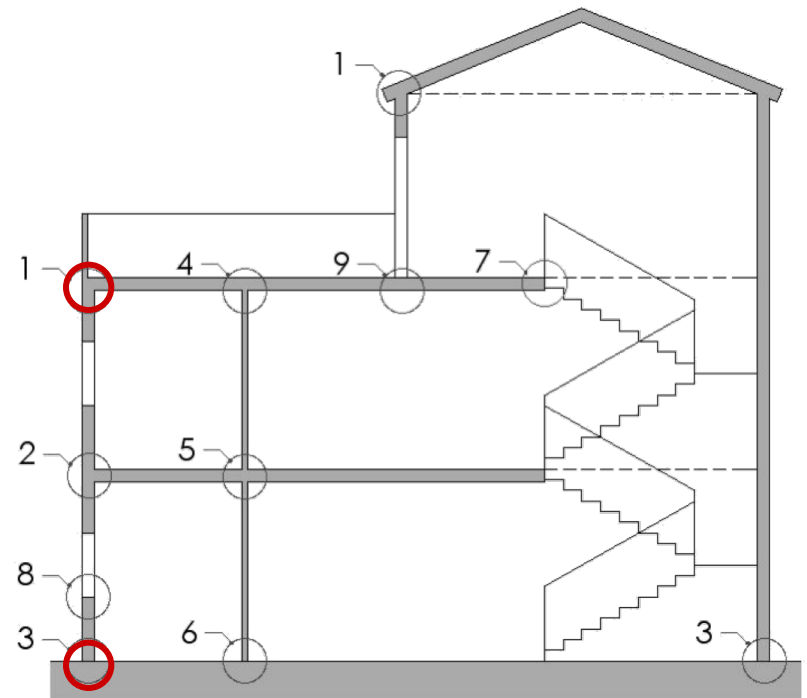


## Critical building nodes

A building node is a point where two or more parts of the building (technical elements) converge.

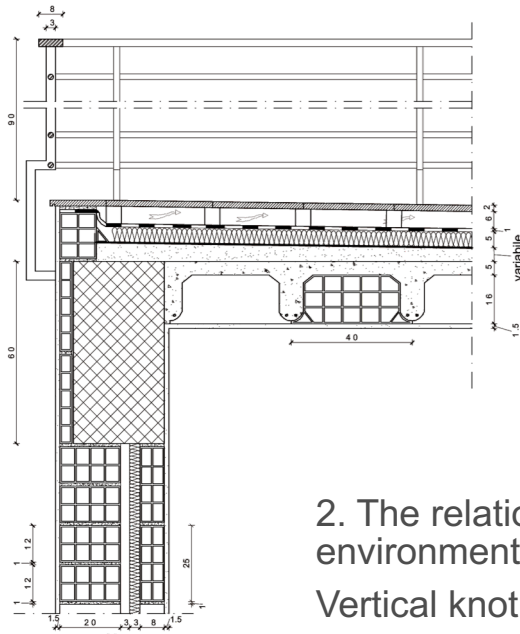
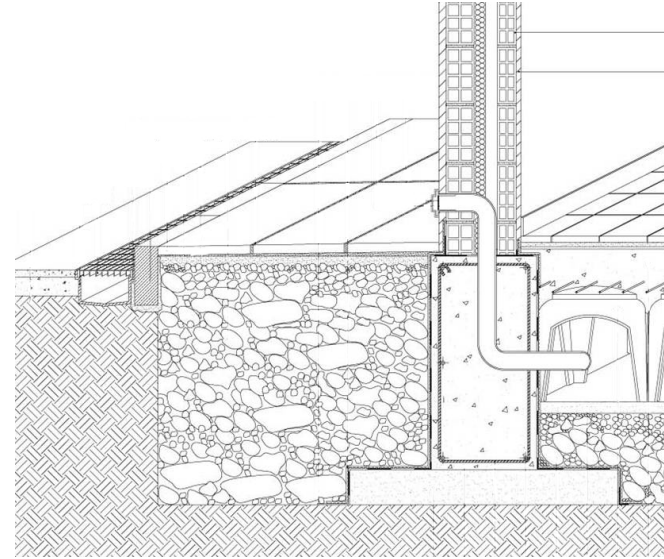
A knot becomes critical when performance drops occur inside it.

1. Vertical Closure Node - Roof
2. Vertical closure knot - Horizontal Intermediate closure
3. Vertical closure node- Horizontal base closure
4. Roof Node - Internal Partition
5. Internal Partition Node - Horizontal Intermediate Closure
6. Internal Partition Node - Horizontal Base Closure
7. Internal Partition Node Vertical Communication Elements (Stairs)
8. knot Vertical Matt Closure - Vertical Transparent Closure
9. knot Vertical Transparent Closure - Roof



Individuare le problematiche funzionali e tecnico-costruttive relative a due nodi costruttivi che rappresentano:

1. The relationship building - land  
Vertical knot closure - Horizontal basic closure



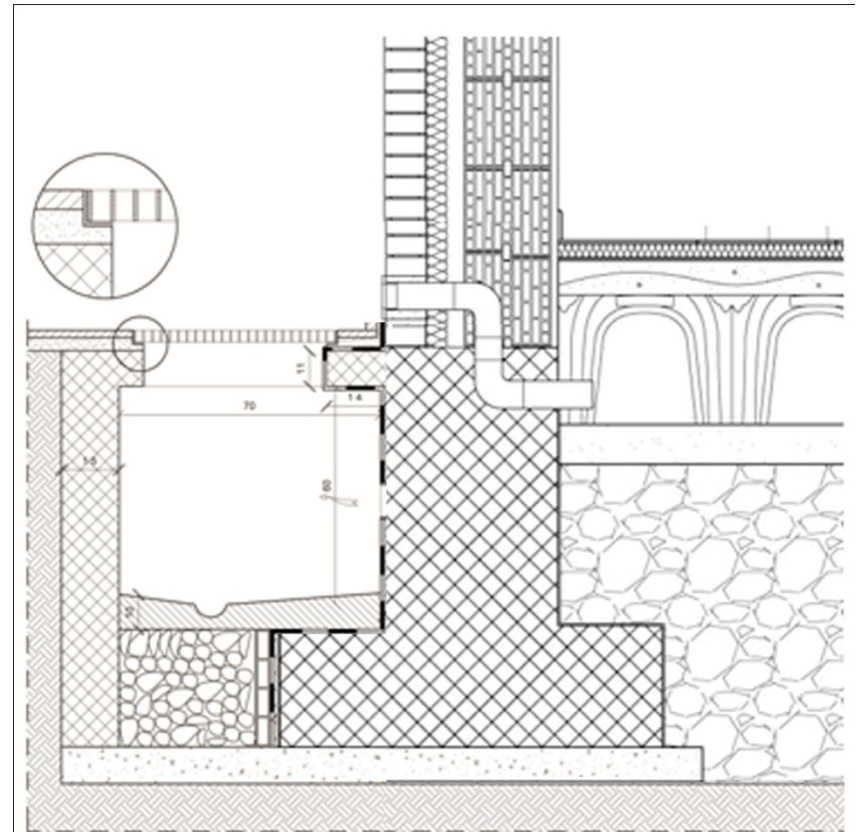
2. The relationship between construction and environment

Vertical knot closure - Horizontal closure of cover

The ground connection of a building represents all the structural works, watertightness, insulation, protection, closure and preparation of floors that allow you to use the spaces near the ground, in conditions of safety and comfort and ensuring the durability of the works.

### Main problematic aspects:

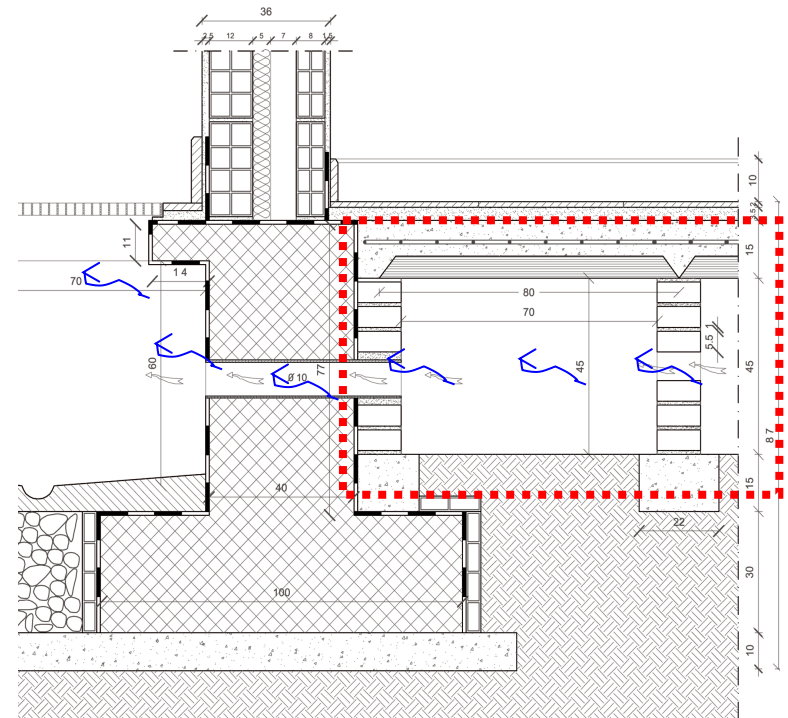
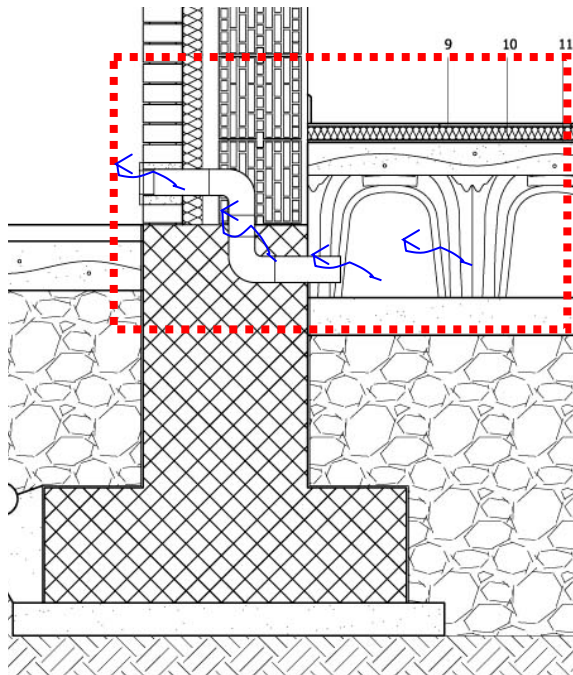
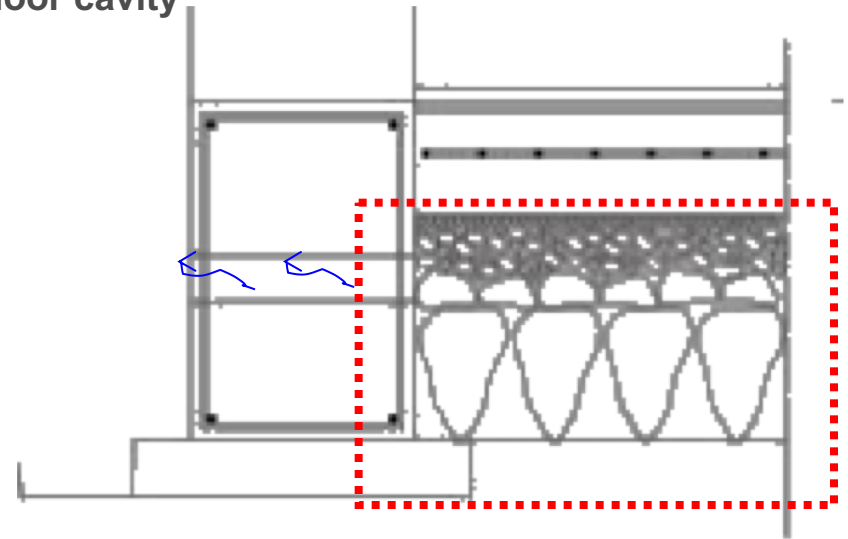
- Unloading the weight of the building and responding to the thrusts of the ground
- Separate outdoor spaces from the ground
- Protect the structure from moisture phenomena
- Promoting ventilation to prevent condensation
- Provide suitably insulated and protected floor slabs on the ground
- Protect underground areas and those in proximity to the floor of the water in the ground and from rainwater



## Types of under-floor cavity

### Functions:

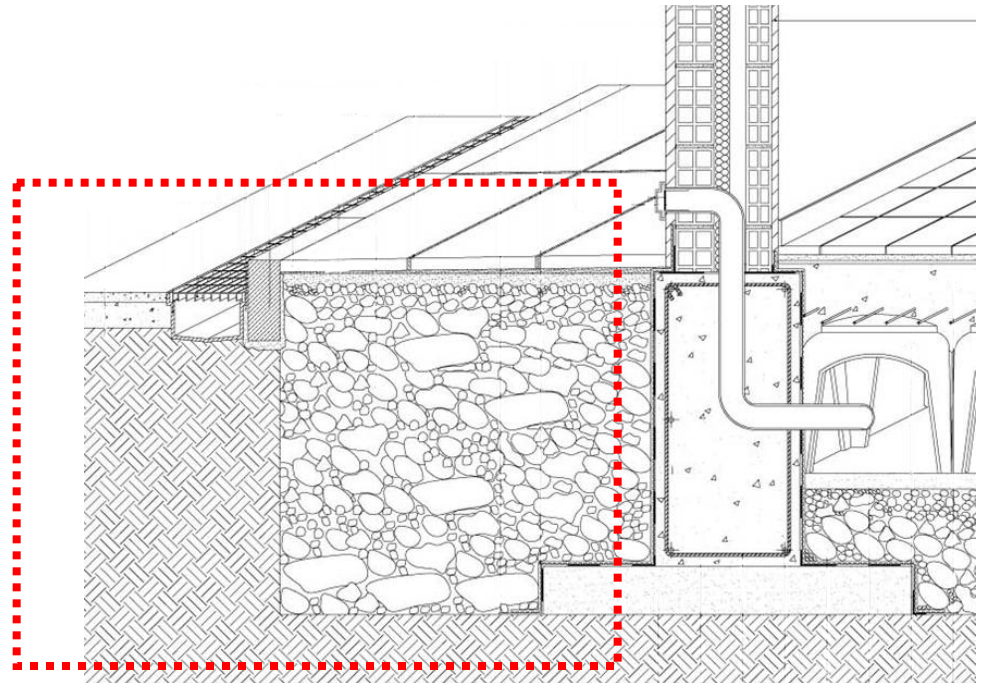
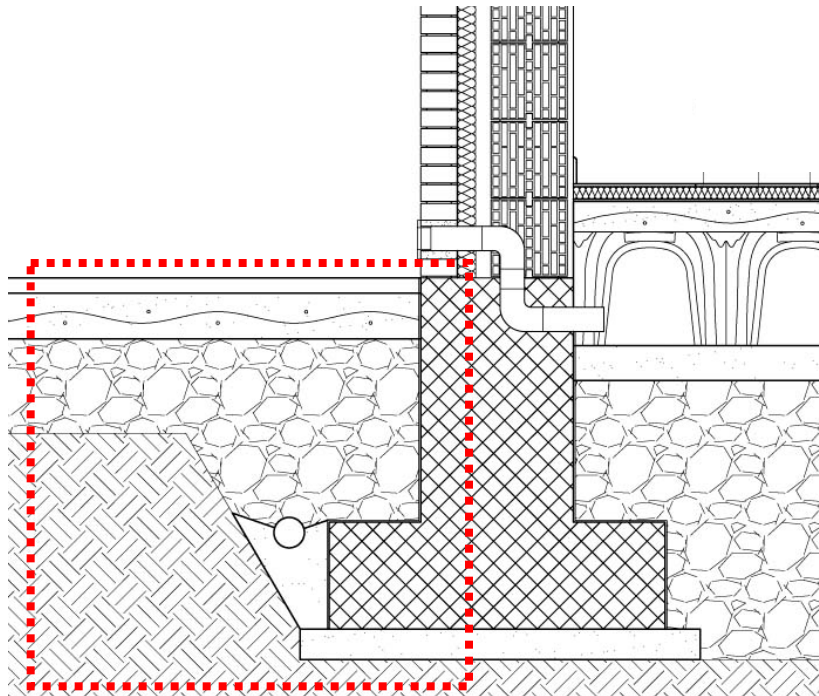
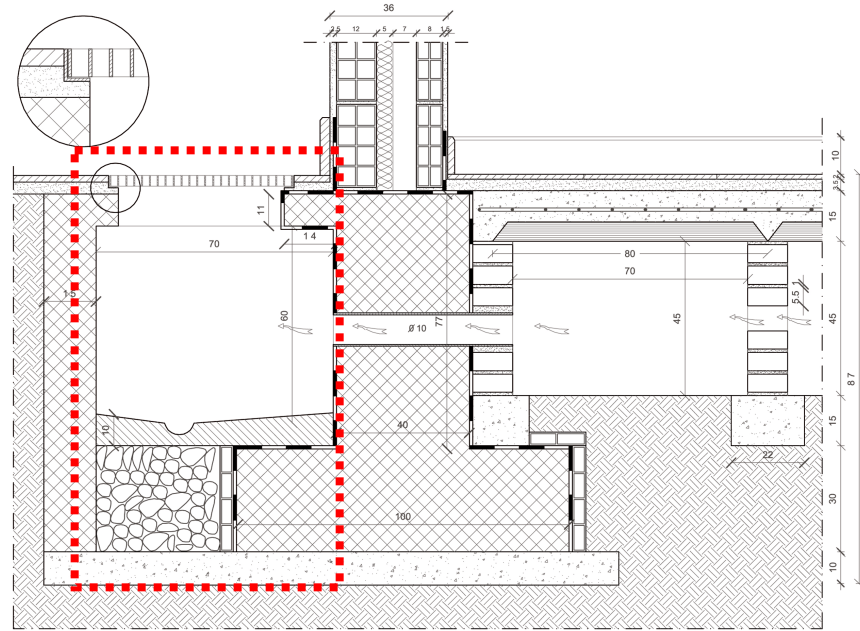
- Separate outdoor spaces from the ground
- Protect the structure from moisture phenomena
- Promoting ventilation to avoid the following condensation phenomena
- Provide basic floors, appropriately insulated and protected



## Types of drain channel

### Functions:

- Protect the structure from moisture phenomena
- Protect underground areas and those near the floor from ground water and rainwater



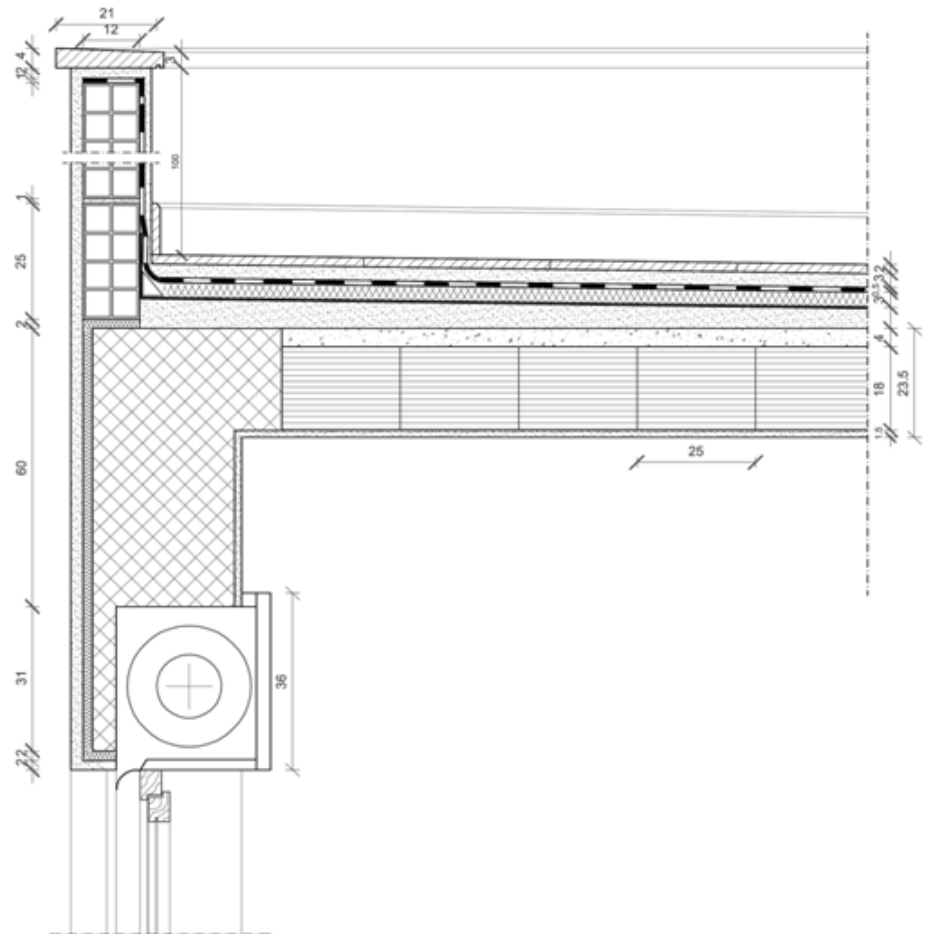
## The relationship between building and environment

### Vertical Closure - Horizontal Roof

The knot in the roof must be strong and stable in the presence of static loads (own weight, rain, snow), any loads for use (people and/or equipment), dynamic loads (wind), impacts. It also performs the task of keeping water, insulating thermally and acoustically, not generating interstitial and superficial condensation phenomena.

#### Main problematic aspects:

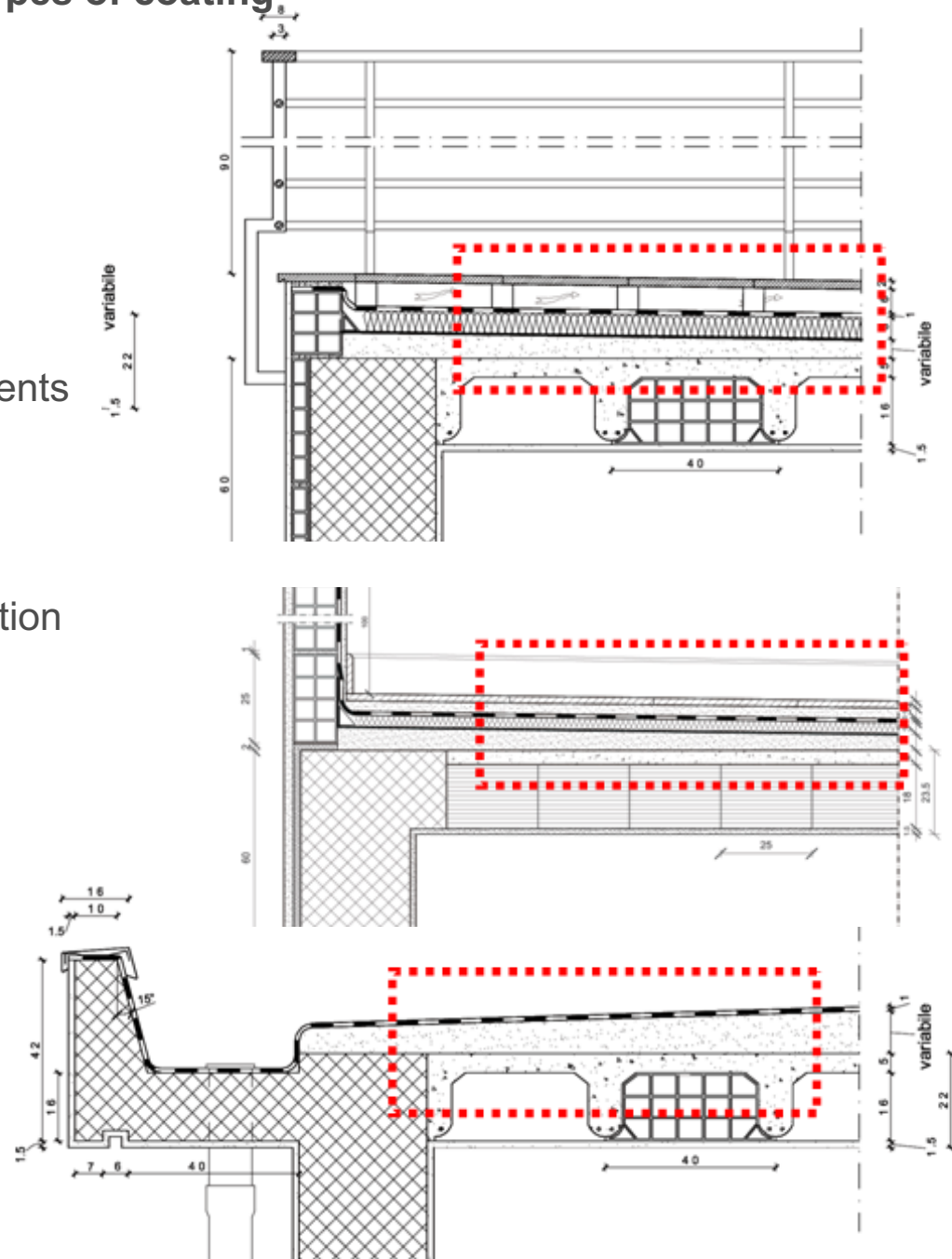
- Protecting the building from the elements
- Avoiding the formation of thermal bridges
- Reduce heat loss
- Check the passage of air and steam
- Promoting thermal-acoustic insulation



## Types of coating

### Functions:

- Protect the building from the elements
- Reduce heat loss
- Control surface and internal condensation phenomena
- Promoting thermal-acoustic insulation





# Types of upper coronation

## Functions:

- Protect the building from the elements
- Reduce heat loss
- Control surface and internal condensation phenomena
- Avoid a different behaviour of the technical elements with respect to heat (thermal bridge)

