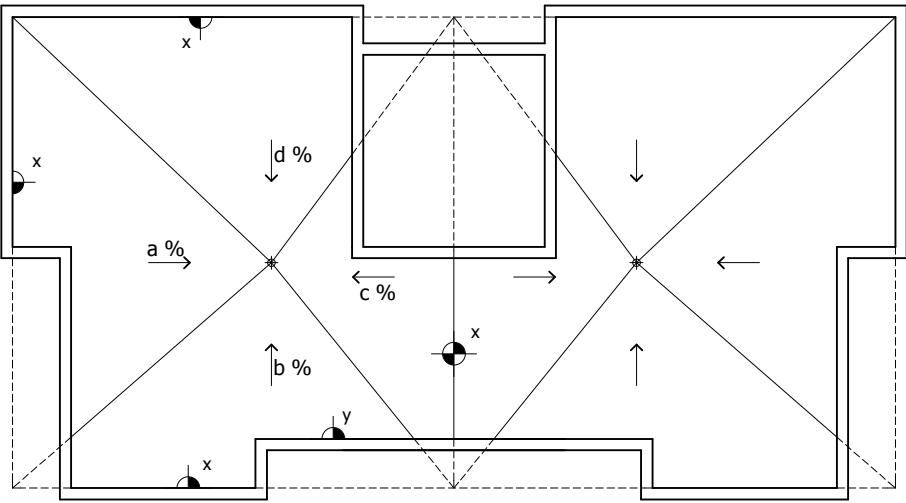
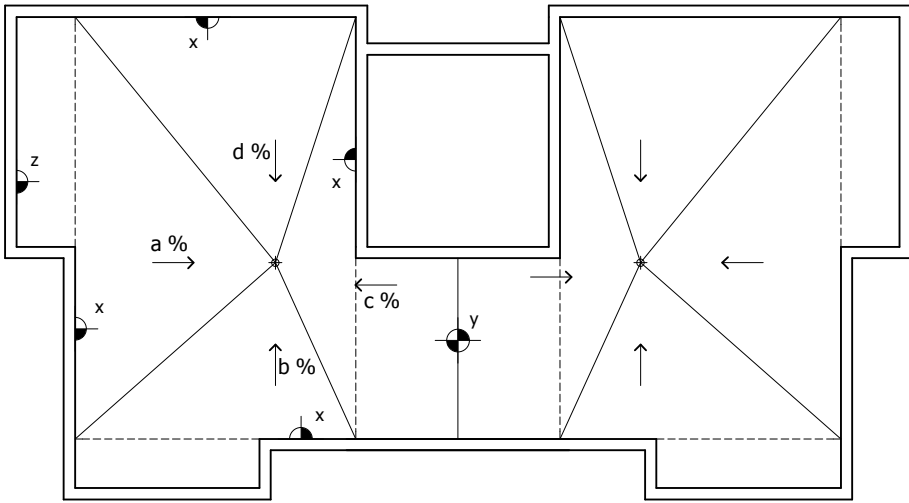


Drainage system

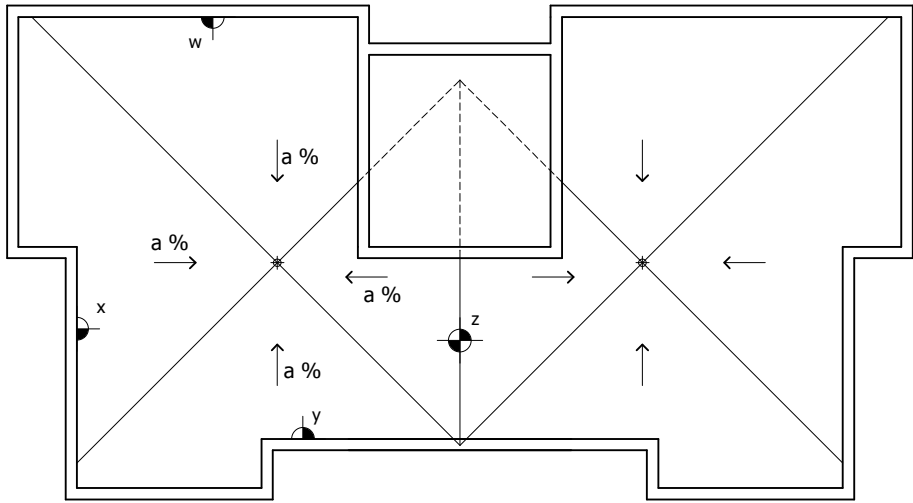
S ~ 1:200



rectangular construction type 1.



rectangular construction type 2.



right angle editing

General rules of inclination

1. Generally the minimal inclination/roof pitch is 2 %, in case of valley minimum 1 %.
2. The minimal inclination according to the material of the substructure:
 - polystyrene foam: 2,5 %
 - loadbearing slab with wide span ≥ 3 %
 - timber board inclination ≥ 4 %.
3. The inclination system, the substructure in point of the materials: concrete screed, lightweight concrete screed, lightened concrete screed with thermal insulation boards, inclined thermal insulation, loadbearing construction.
4. The farthest point of a water collecting area from the gully is 12 m.
5. The roof upstands (ventilation, rooflight elements) cannot be in the valley.
6. If the above mentioned minimal inclination percentages cannot be fulfilled, the flat roof is a special construction and the quality of the waterproofing should be improved (number of the layers, overlapping, thickness of the membrane etc.).

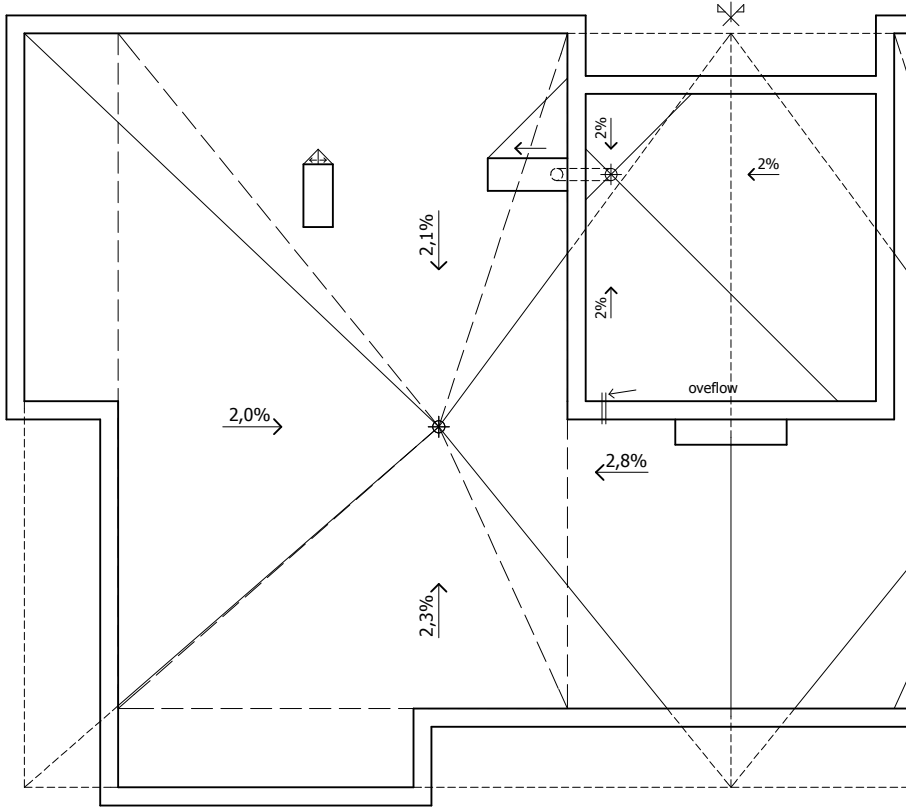
and main rules of water collecting areas

7. The water drainage can be ensured externally (by gutters) or internally by gullies (rainwater outlet).
8. There should be minimum 2 gullies or 1 gully and 1 safety overflow unit in a flat roof.
9. In case of concrete screed or thermal insulation substructures the slope of the roof should be increased around the gullies.
10. The distance of the gullies measured from the attic walls, roof upstands etc. is minimum 50 cm.
11. Maintenance operations cannot be hindered at the gullies.
12. The maximum water collecting area is 150 m², in case of gravity roof drainage.

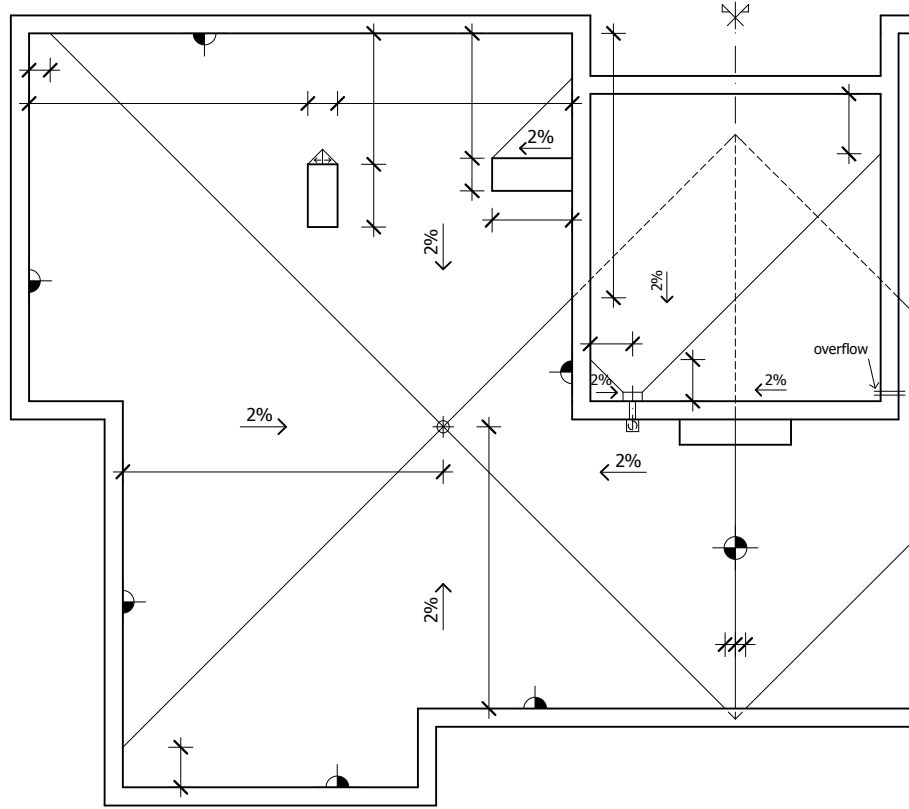
Dimensioning

- dimensions of roof (whole size, and corner points)
- the place of the roof upstands/chimneys
- the place of the gullies/outlets
- percentages of slopes
- level indicators of every high and low points
- area of the water collecting area

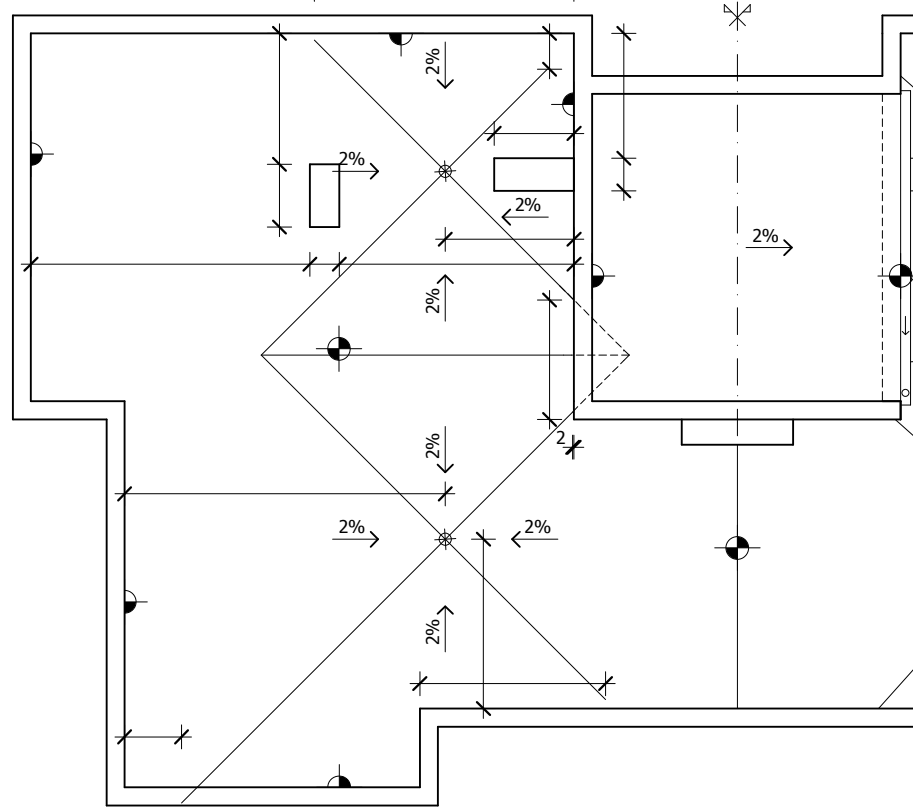
S ~ 1:125



rectangular construction - with roof upstands



right angle editing - with roof upstands



right angle editing - with more gullies

