



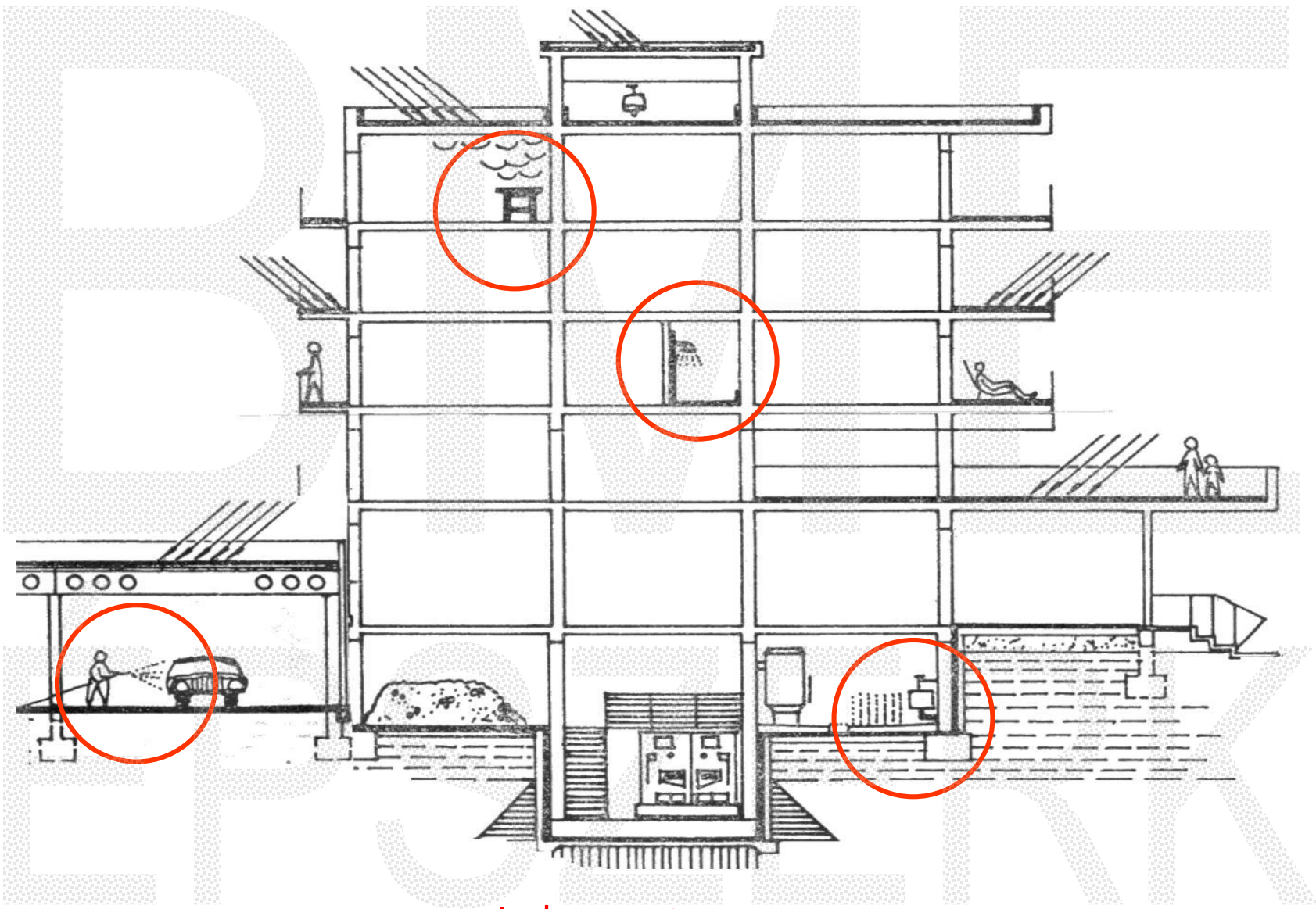
Budapest University of Technology and Economics
Faculty of Architecture Engineering
Department of Building Constructions



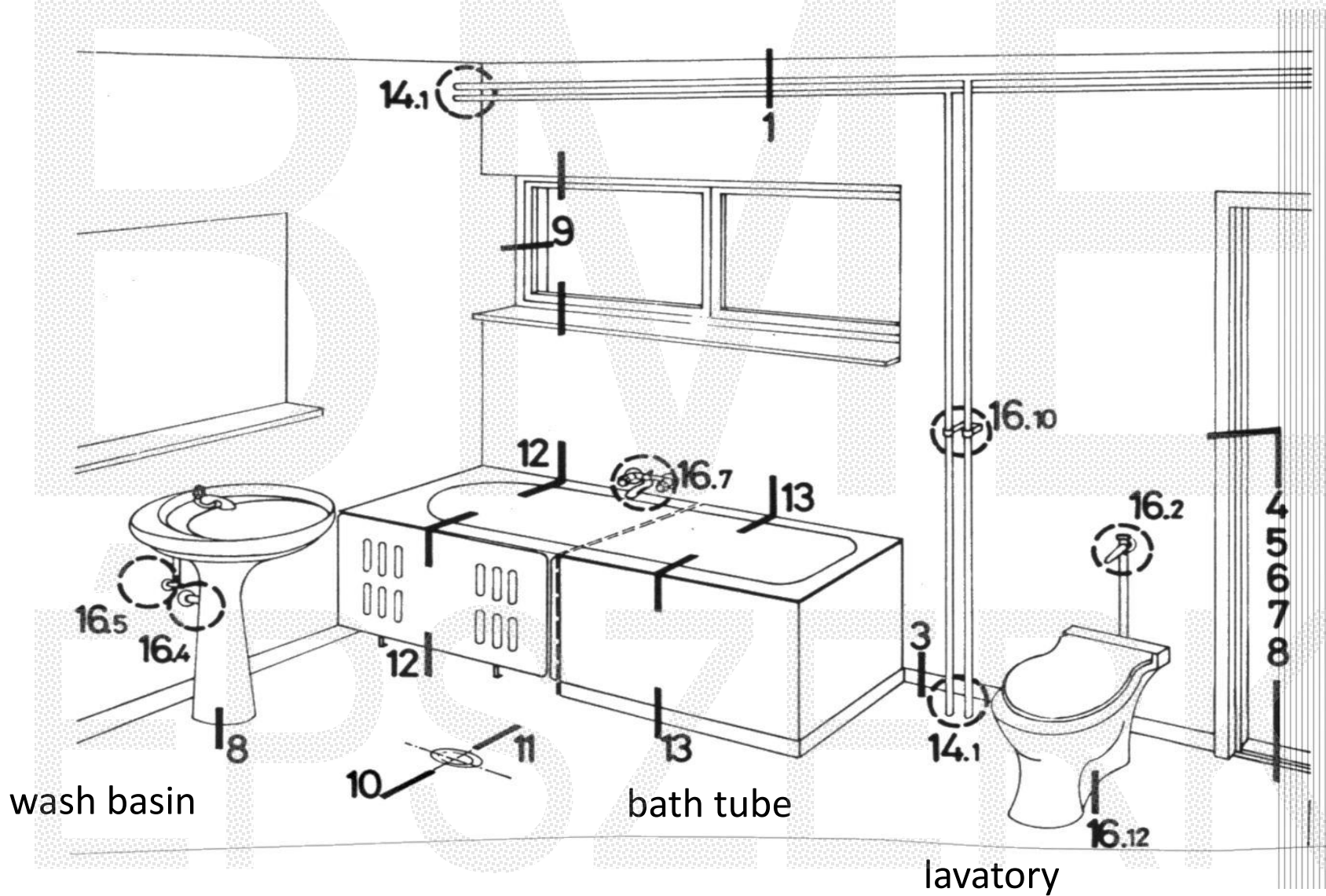
INDOOR WATERPROOFING

Horváth Sándor - Dr Fülöp Zsuzsanna

Budapest 2017.



Indoor water exposure



Operating and domestic water

according to the function

(shower, kitchen, cleaning equipment
storage, etc.)

according to the building technology

(industrial: laundry, swimming pool,
etc.)



impacts

- water (operation)
- moisture
- temperature heat expansion
- chemical
- mechanical (loads)
- deformations, displacements

Impact levels! – quality of waterproofing



Drain systems

- from DPC surface
- from floor covering surface

slip!

- area for 1 gully: app. 30-40 m²
- distance to gully: app. 6-7 m
(weight, thickness)

Arrangement of DPC:

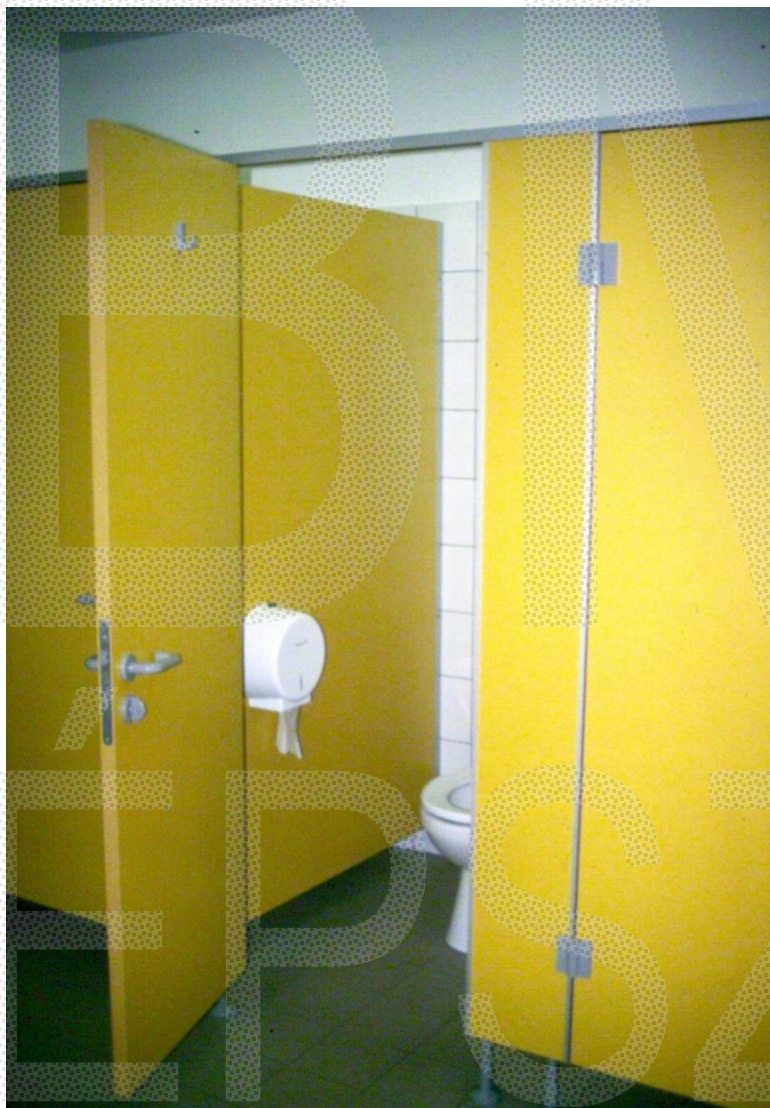
continuous DPC surface

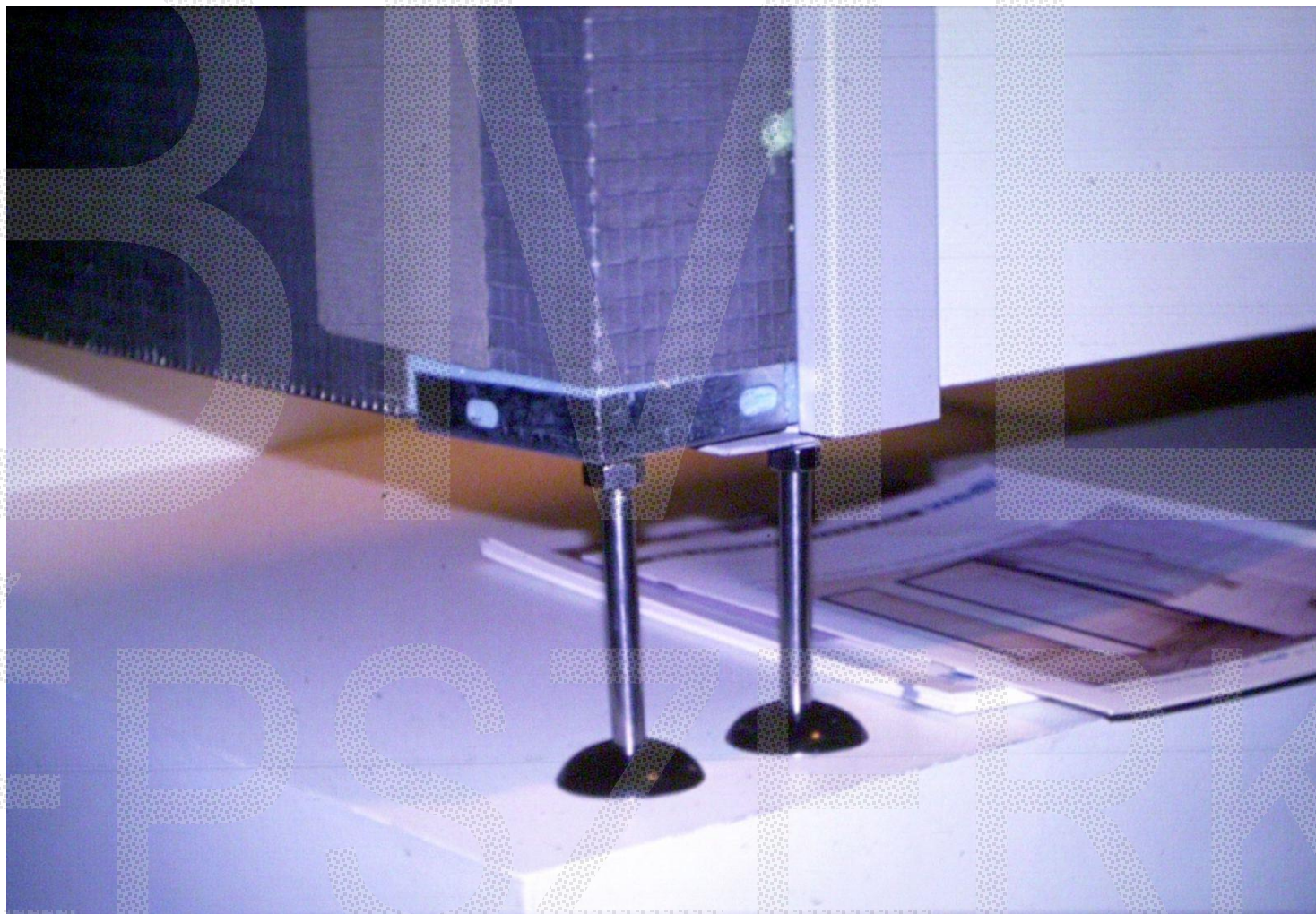
(under partition, footing on walls)

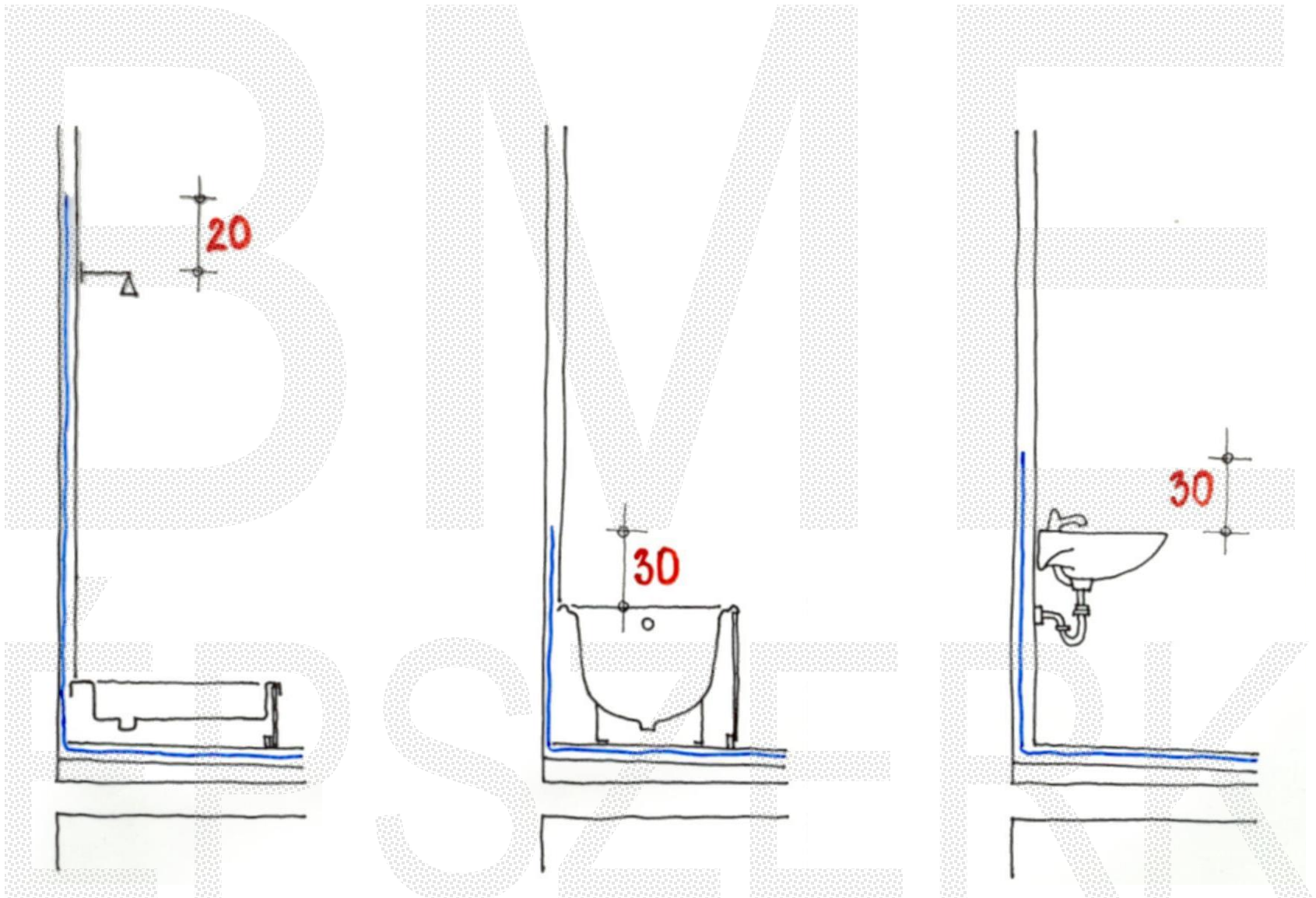
Elements: horizontal DPC
vertical DPC on footing
vertical DPC on walls

details: threshold
pipes

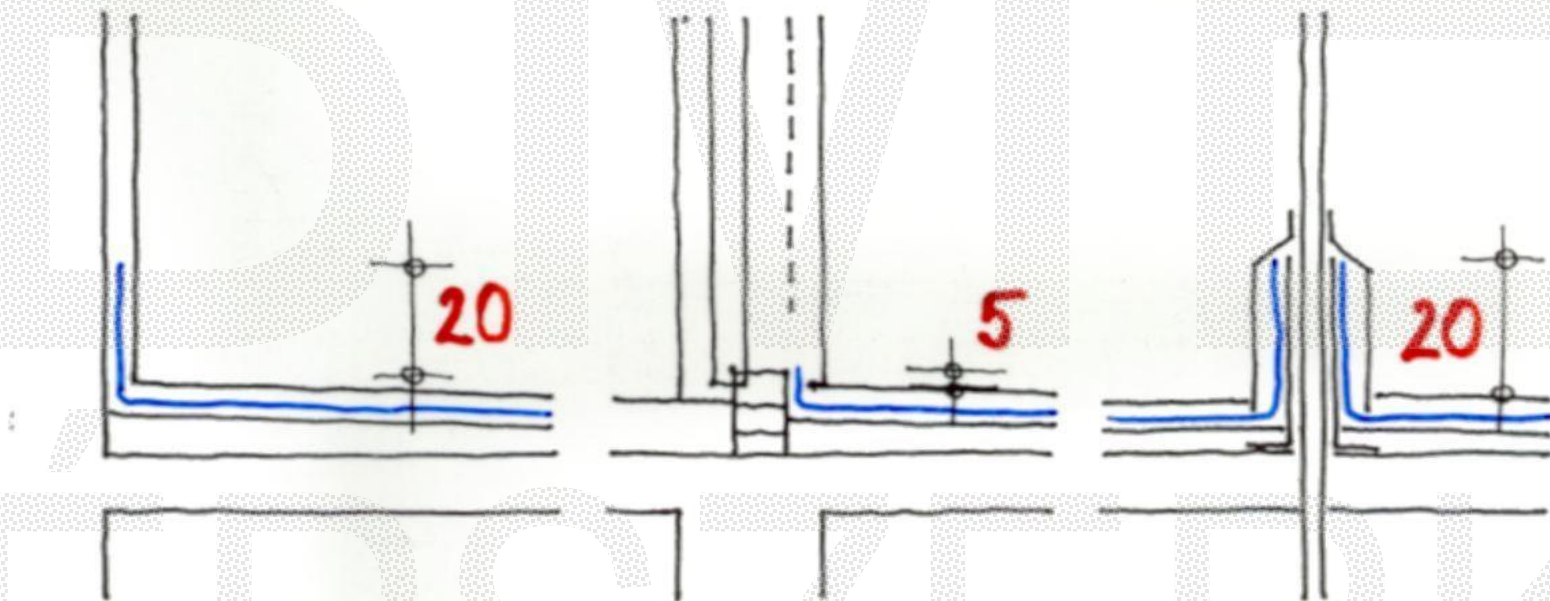








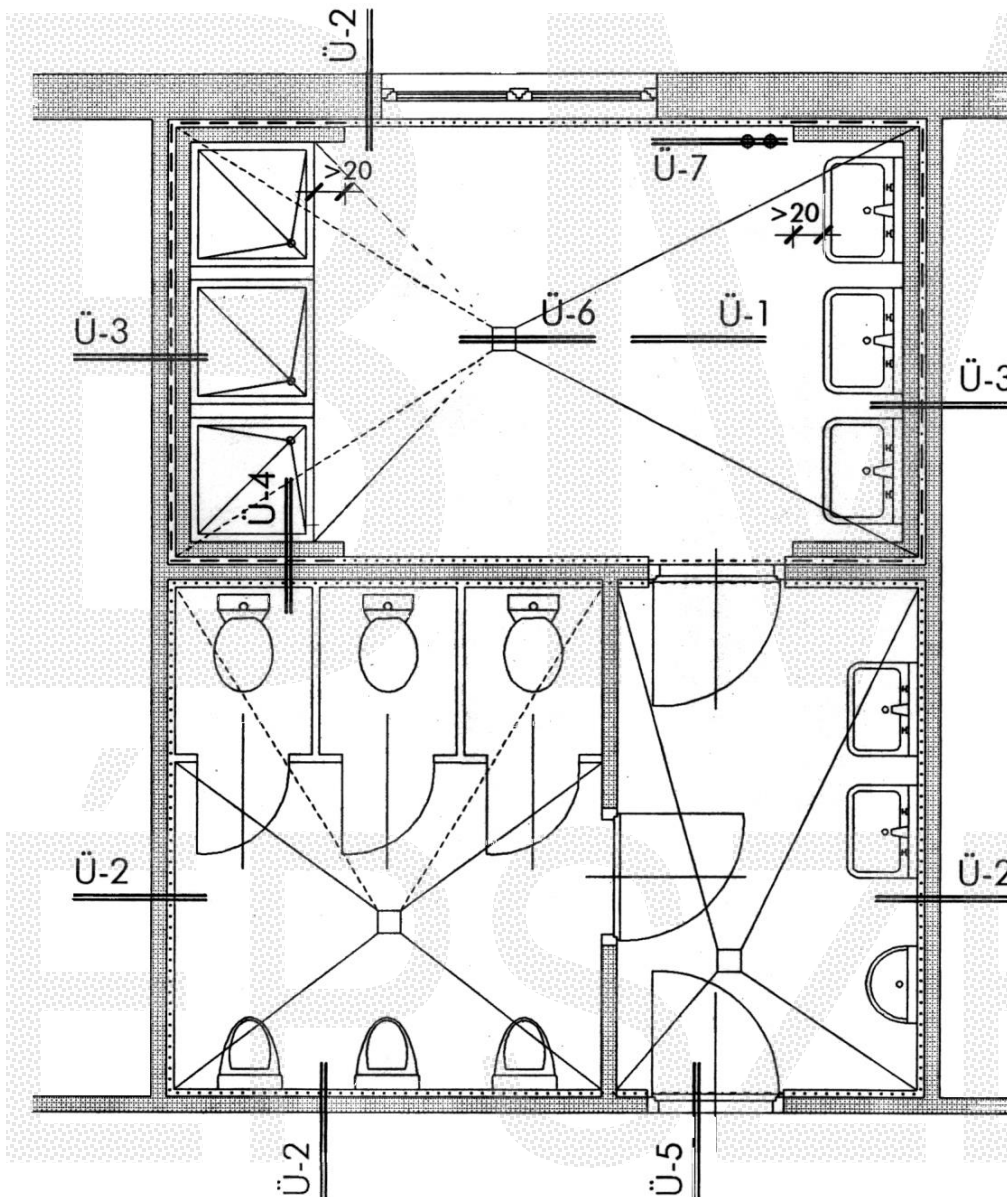
DPC height according to the water supply level



different slopes on
floor and on DPC

conduits above DPC
in floor construction

minimum
penetrations

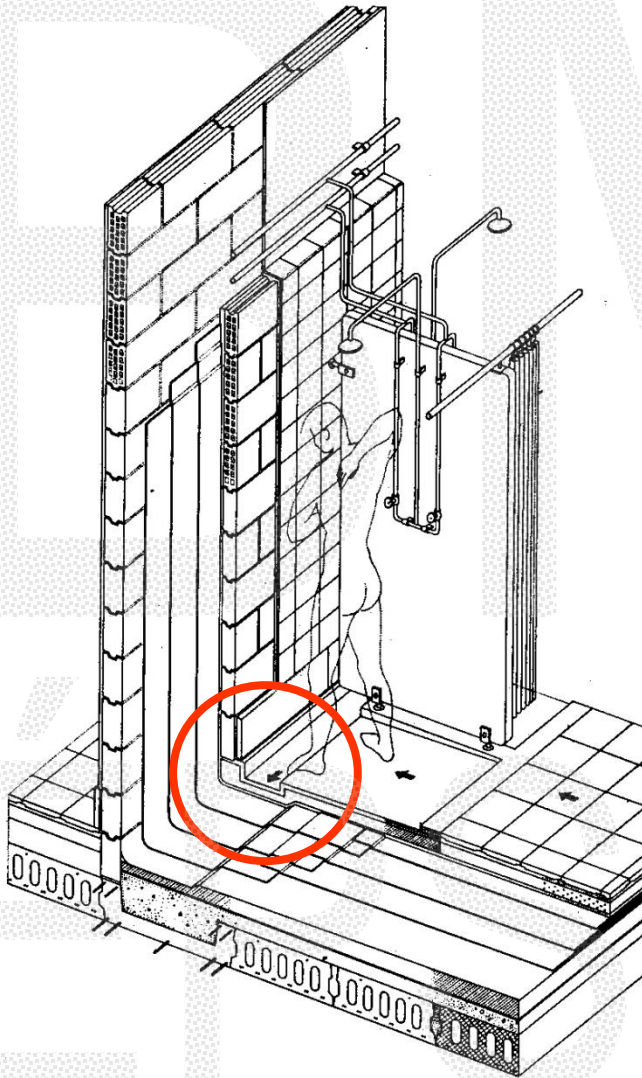




Do not create channel
in DPC!

- accidents

- collar of gully



Elements of DPC for domestic and operation water effects

- sub construction of DPC
- DPC: under layer
DPC
protection layer
- floor covering

Optional elements: drain layer, gully

Materials, technology of DPC

- bituminous felt: no !
- bituminous thick membrane: only modified
- plastic membrane: PVC, VAE, ECB, TPO
- liquid waterproofing: elastic cement mortar
- insulation flooring: PVC membrane
„contact” flooring + coating
art. resins (industrial flooring)

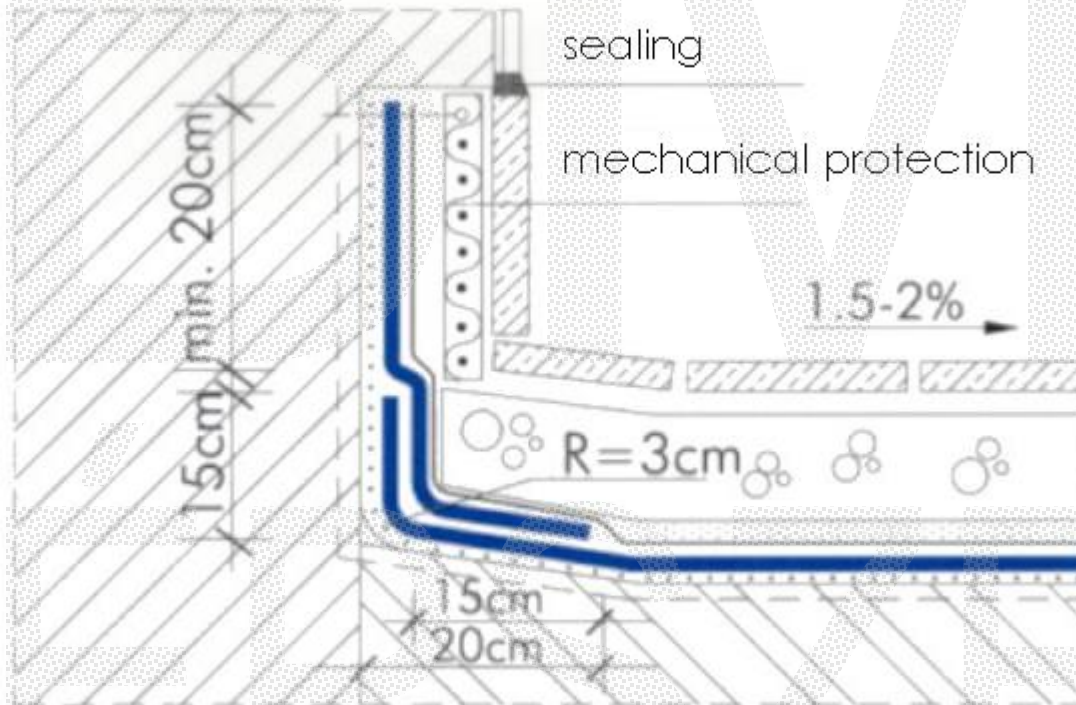








Bituminous membrane



- tiles
- mortar bedding
- screed
- drain sand
- mod. bit. DPC
- priming
- screed
- R.C. slab

- tiles
- gluing
- screed
- drain sheet
- PVC protection
- PVC waterproofing
- glass tissue
- Screed
- R.C. slab





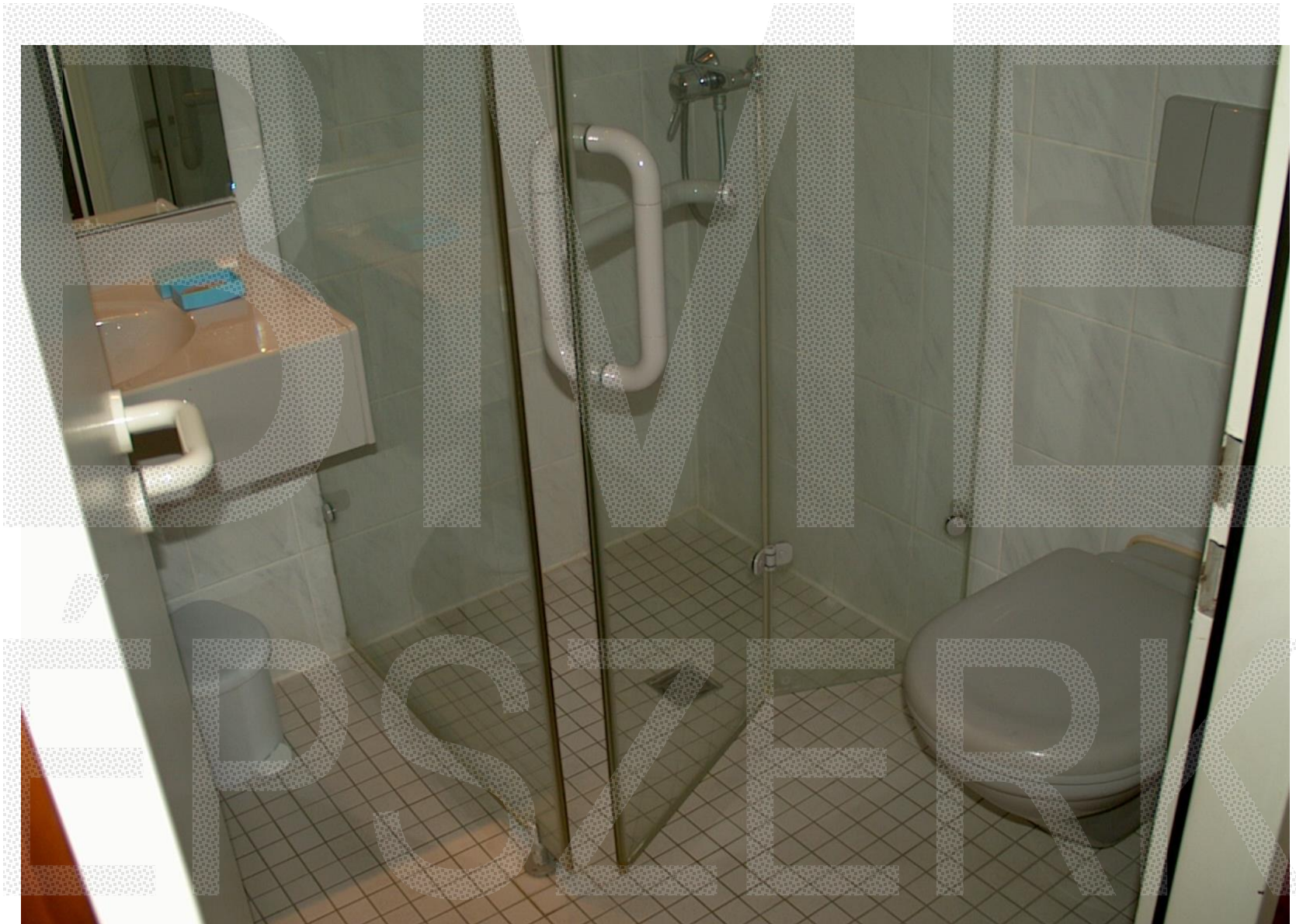






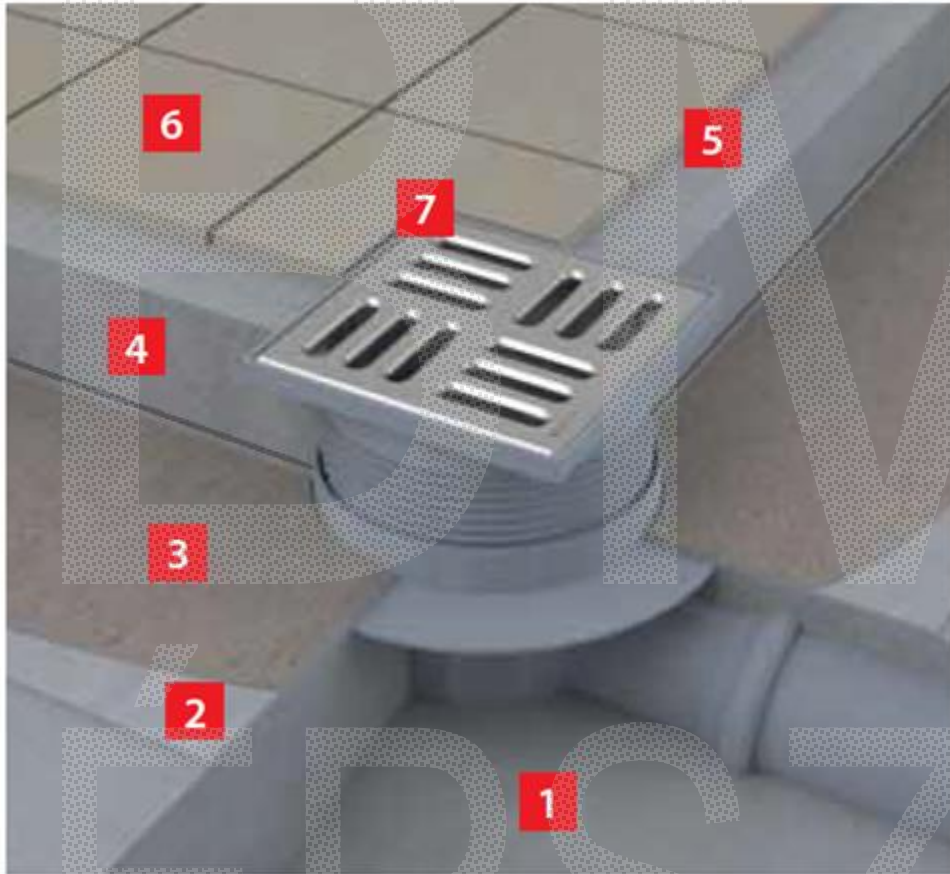






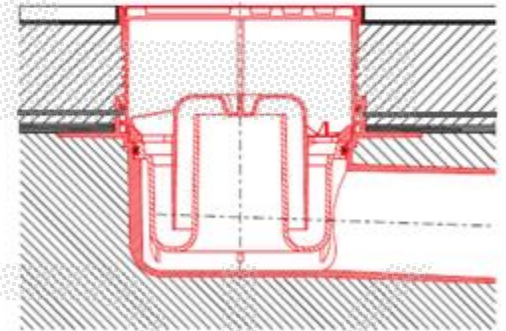


Bathroom arrangement



APV1 GULLY

- 1 concrete
- 2 smoothing
- 3 liquid D.P.C. + drain sheet
- 4 subconcrete
- 5 gluing
- 6 tiles
- 7 sealing



- Odor closing

THANK YOU FOR YOUR
ATTENTION!

